



2020 World Peace Academic Conference

Foreword

Planning meeting



Opening ceremony



Dr. Thomas Selover



Dr. Sung-Bae Jin



Dr. Sun Jin Moon



Dr. Modadugu Vijay Gupta



Hon. Marc Vogelaar

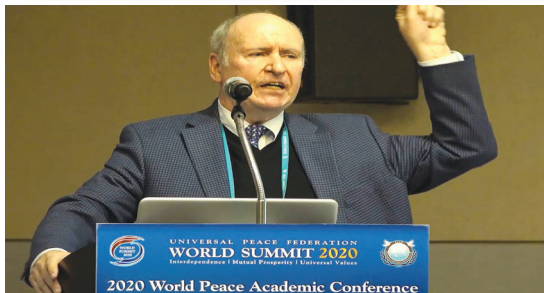


Dr. Kim Heon-Young

Section 1: Presenters and Commentators



Section 2: Presenters and Commentators



Section 3: Presenters and Commentators



Section 4: Presenters and Commentators



IAAP Inaugural General Meeting



Dr. Tyler Hendricks



Dr. Sung-Bae Jin



Dr. Thomas Walsh



Dr. Sun-Jo Hwang



Signing Ceremony of the Resolution



Signing Ceremony of the Resolution



Commemorative Photo



Commemorative Photo



Opening Ceremony

MC: Dr. Thomas Selover (USA)

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14:00~15:10 Opening Plenary Session (MC: Dr. Thomas Selover, USA) / (Room # 306~307)

Section 1 _ Reflections on and Vision for the Unity of Sciences _ (Room # 304)

Topic 1 _ Founder's Vision for ICUS

Moderator 1 _ Mr. Greg Breland Jr. (USA)

15:10~16:30 Presenter 1 _ Dr. Andrew Wilson (USA)

The Unity of Religion and Science in Rev. Sun Myung Moon's Founding Vision for ICUS

Presenter 2 _ Dr. Yoshimitsu Nishikawa (Japan)

Rev. Sun Myung Moon's International Highway-Undersea Tunnel Project and its Modern-day Significance

Commentator 1 _ Dr. Jong Choon Woo (Korea)

Session Discussion

16:30~16:50 Break

Topic 2 _ Unity of Knowledge

Moderator 2 _ Mr. Greg Breland Jr. (USA)

16:50~18:00 Presenter 3 _ Dr. William Keepin (USA)

Uniting Natural and Esoteric Sciences: Pathway to the Deep Secrets of the Universe

Presenter 4 _ Dr. Gennady Shipov (Russia)

New Scientific Paradigm and Breakthrough Technologies

Commentator 2 _ Dr. Maria Trukhanova (Russia)

Session Discussion

Section 2 _ A Vision for World Peace _ (Room # 306)

Topic 1 _ Dr. Moon's Declaration of the End of Communism

Moderator 1 _ Dr. William D. Lay (USA)

15:10~16:30 Presenter 1 _ Dr. Thomas J. Ward (USA)

Reverend Moon's Contribution to the End of the Cold War and a Vision for World Peace

Presenter 2 _ Mr. Bill Gertz (USA)

The Washington Times and the End of the Cold War

Presenter 3 _ Dr. Werner Fasslabend (Austria)

New Challenges Need New Identities

Session Discussion

16:30~16:50 Break

Topic 2 _ Regional Perspectives

Moderator 2 _ Prof. Robert Schairer (USA)

16:50~18:00 Presenter 4 _ Dr. Emmanuel Dupuy (France)

A Vision for World Peace: Regional Perspectives in the Europe - Africa Region

Presenter 5 _ Dr. Oumar Ndongo (Senegal)

Teranga and Pleasant Parent Kinship as Strategies to Ensure Peaceful Co-existence in Senegalese society

Commentator 1 _ Dr. Choon Heum Choi (Korea)

Session Discussion

Topic 1 _ The History of True Parents' Impact on Theology and Religious Studies

15:10~16:30 **Presenter 1** _ Dr. Frank Kaufmann (USA)
 Reverend Moon's Influence on Religion in the 20th and 21st Centuries

Presenter 2 _ Dr. Charles Selengut (USA)
 Interfaith Encounters: Debating, Dialogue and Dining

Commentator 1 _ Dr. Drissa Kone (USA)

Session Discussion

Moderator 2_ Dr. Tyler Hendricks (USA)

15:20~18:00

- Greetings _ Sun Jo Hwang _ President, Sun Moon University
- Congratulatory Remarks _ Heon Young Kim _ Chairman, Korean Council for University Education
- Round Table Moderator _ Prof. Heung Soon Park (Korea)
- Aaron Benavot _ Professor, State University of New York (USA)
 - Peace Education, Global Citizenship Education, and University
- Woo Seung Kim _ President, Hanyang University (Korea)
 - Future Model of Talents and University Education
- Jae Shin Park _ Vice President, KOICA (Korea)
 - International Development & SDGs, KOICA and the Role of University

Kremen VASYL _ President, National Academy of Pedagogical Sciences (Ukraine)
Suresh Raj SHARMA _ Founding Vice Chancellor, Kathmandu University (Nepal)
Crispus Makau KIAMBA _ Vice Chancellor, Nairobi University (Kenya)

Section 1 _ Reflections on and Vision for the Unity of Sciences _ (Room # 304)

Topic 3 _ Science and Values

Moderator 3 _ Dr. Andrew Wilson (USA)

- 14:00~15:15 **Presenter 5** _ Dr. J.Martin Ramirez (Spain)
Science, Peace and Security: My Personal Journey Spanning Half a Century
- Presenter 6** _ Dr. Yoshiyuki Amemiya (Japan)
Science and Values: Overall View of Science and the Ideals of Human Civilization
- Commentator 3** _ Dr. Gi Eun Kim (Korea)
 Session Discussion
- 15:15~15:25 Break

Topic 4 _ Environment

Moderator 4 _ Dr. Andrew Wilson (USA)

- 15:25~16:35 **Presenter 7** _ Dr. Ngatu Roger Nlandu (D.R. Congo)
Effects of Ambient Air Pollution on Human's Respiratory Health: An Environmental Health Perspective
- Presenter 8** _ Dr. Soo Wohn Lee (Korea)
Global Water Problems
- Commentator 4** _ Dr. Kazuo Takahashi (Japan)
 Session Discussion

Section 2 _ A Vision for World Peace _ (Room # 306)

Topic 3 _ The Interpersonal vis-à-vis the Political and Economic Dimensions of Peace

Moderator 3 _ Dr. Thomas J. Ward (USA)

- 14:00~15:15 **Presenter 6** _ Dr. Rima Salah (Jordan)
Global Vision for Peace: A Participatory and Integrated Approach
- Presenter 7** _ Hon. Ema Hennicot-Schoepges (Luxembourg)
Civilization for Peace
- Commentator 2** _ Dr. Walter Feichtinger (Austria)
 Session Discussion
- 15:15~15:25 Break

Topic 4 _ The Role of Human Security and Rule of Law

Moderator 4 _ Prof. Robert Schairer (USA)

- 15:25~16:35 **Presenter 8** _ Dr. William D. Lay (USA)
Judicial Recognition of Fundamental Rights: Human Security Considerations
- Presenter 9** _ Dr. Joseph Dunne (USA)
The Role of the Adversary System in Human Security
- Presenter 10** _ Dr. Cole Durham (USA)
The Contributions of Religious Civil Society to the Rule of Law
- Session Discussion

Section 3 _ The God Conference and God as the Parent of Humankind _ (Room # 303)

Topic 3 _ Theology Related to “Pacific Rim Culture”

Moderator 3 _ Dr. Frank Kaufmann (USA)

14:00~15:15 Presenter 5 _ Dr. Cheryl Lau (USA)

World Theology and the Emergence of the Pacific Rim Culture

Presenter 6 _ Dr. Joseph Terwilliger (USA)

A Curious Scientist's Approach to Understanding Others as People

Commentator 3 _ Dr. Soo Min Kim (Korea)

Session Discussion

15:15~15:25 Break

Topic 4 _ God and Theology in the Tech Age

Moderator 4 _ Dr. Frank Kaufmann (USA)

15:25~16:25 Presenter 7 _ Dr. Ben Pazi (Israel)

True Dialogue in an Era of Synthetic Conversation: Religious Knowledge and Artificial Intelligence

Commentator 4 _ Dr. Charles Selengut (USA)

Session Discussion

Section 4 _ The Peace of Humankind and The Role of the University in the Next 100 Years _ (Room # 305)

Topic 2 _ How Should University Education Change in the Next 100 Years?

Moderator _ Prof. Junghyun AHN

14:00~16:30 Keynote Speech _ Innovation and Tasks of University Education in the Next 100 Years

– Hon. Doh Yeon Kim (For.) _ Minister of Education, Science and Technology (MEST)

_Professor, Emeritus, Seoul National Univ

Young Bin Cho _ Managing Director, Dassault Systèmes Korea (Korea)

– Dassault Education Program

Minu Ipe _ Advisor to President, Arizona State University (USA)

– Educational Innovation at ASU

Ki Yong Yoon _ Professor, Sun Moon University (Korea)

– Educational Innovation at SMU

16:30~17:00 Special Session

– Signing of the Declaration of the WUPC

– Announcement of the 2nd WUPC

16:50~17:10 Closing Plenary Session / (Room # 306–307)

– MC & Remarks : Dr. Frank Kaufmann (USA)

– Session Reports

17:10~17:40 Inaugural General Meeting, International Association of Academicians for Peace (IAAP)

MC: Dr. Tyler Hendricks, USA / (Room # 306–307)



Dr. Thomas Selover (USA)

Dr. Thomas Selover is President of SunHak UP Graduate University in South Korea, and is also serving as international president of the Professors World Peace Academy. He received his doctorate in comparative religion and Confucian thought from Harvard University and has taught at universities and colleges in Canada, the United States, China, and Korea. He and his wife Grace are currently researching the concepts of interdependence, mutual prosperity and universal values as a moral and practical basis for human community.



Dr. Tyler Hendricks (USA)

Dr. Hendricks was Assistant Director of the first Assembly of the World's Religions (1985), president of the Unification Church of America (1995–2000), and president of the Unification Theological Seminary (2000–2010). He authored the True Family Values Ministry curriculum and Family, Church, Community, Kingdom, and co-authored with Dr. Robert Kittel Four Family Loves. His videos, podcasts and articles appear on the popular website, True Parents Way, <http://www.trueparentsway.com>.



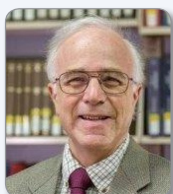
Mr. Charles Gregory Breland, Jr. (USA)

Mr. Breland served as Deputy and later as Executive Director of the International Conference on the Unity of the Sciences (ICUS) for 16 years until 2000. He served as one of the Directors of the Facilities Management Team at the University of Bridgeport before retiring in 2018. He has earned advanced degrees in Environmental Engineering and Religious Studies.



Prof. Robert Schairer (USA)

Robert Schairer is Secretary General of the Western Department of HJ Academic Foundation, an adjunct professor at Sunhak UP Graduate University, and a licensed attorney. He earned a Juris Doctor from Brooklyn Law School, a Master of International Affairs and a B.A. from Columbia University. He was the president of a Small Business Investment Company for 21 years and an adjunct professor at KAIST's graduate business school for 7 years.



Dr. Andrew Wilson (USA)

Dr. Wilson is Professor at Unification Theological Seminary, teaching courses on Old Testament, Unification Theology, and World Religions. He edited *World Scripture and the Teachings of Sun Myung Moon*, and *World Scripture: An Anthology of Sacred Texts*, widely used in the interfaith field. Writes on moral education and has published in the *Digest of Middle Eastern Studies*. Multiple degrees from Harvard in Biochemistry, Theological Studies, Near Eastern Languages and Civilizations.



Dr. Yoshimitsu Nishikawa (Japan)

Professor of Regional Development Studies, Tokyo University, Japan. Dr. Nishikawa's colorful career includes Chief of Research Office at the National Institute for Defense Studies, M.A. in international relations from University of Leeds, England, and Ph.D. in Law, Osaka University. His interests focus upon international politics, political and diplomatic history and security studies. Prolific writer: *International Politics and Military Power*, *Modern History of International Relations I-IV*, *International Relations* and many more.



Dr. William Keepin (USA)

William Keepin, PhD, a mathematical physicist, environmental scientist and practitioner on the contemplative path of divine love for thirty-five years, founded the Satyana Institute and Gender Reconciliation International with his wife, Cynthia Brix. Together they conduct a valuable ministry of healing for women, including trainings, retreats and workshops nationally and internationally, encouraging individuals, communities and organizations to combine the inner work of the heart with outer service in the world.



Dr. Gennady Shipov (Russia)

Dr. Shipov is Director of the Science Center for Physics of Vacuum in Moscow State University and Director, Chief Researcher of UVITOR (Russia and Thailand), and honorary advisor to the Thai-Russian Association of Technology and Economic Development. In 1988 Gennady Shipov completed the challenging quest: "Program of Universal Relativity and Theory of Physical Vacuum." Professor Shipov found the Vacuum Equations, representing a set of Geometrized Heisenberg, Einstein and Yang-Mills equations.



Dr. J. Martin Ramirez (Spain)

Dr. Ramirez serves as Chair of the Center for Conflict Studies at Nebrija University, and Chair of the Spanish Pugwash Movement (Nobel laureate 1995). He studied Medicine, Humanities, and Law. He served as Research Fellow of the International Security Program at Harvard University and a Visiting Fellow of Hoover Institution, Stanford University. He is on the Advisory Board of the Society for Terrorism Research and of Professors World Peace Academy.



Dr. Yoshiyuki Amemiya (Japan)

Dr. Amemiya serves as Associate Professor at Tokyo University and as Dean of the Graduate School of Frontier Sciences. He was Postdoctorate Researcher at the Japanese Society for Promotion of Science and Research Associate at the National Laboratory for High Energy Physics. He also was Visiting Scientist at Brookhaven National Laboratory in the USA and Associate Professor at National Laboratory for High Energy Physics. He earned his Ph.D. at the University of Tokyo.



Dr. Ngatu Roger Nlandu (D.R. Congo)

Dr. Ngatu serves as Associate Professor at the International University of Health and Welfare, part of the School of Medicine in Japan. He serves on the Academic Society International Committee on Occupational Health (ICOH). He has published in the African Annals of Medicine, and is Associate Editor, Annals of Phytomedicine, and Editorial Board Member, Journal of International University of Health and Welfare. He has received several awards for his work.



Dr. Soo Wahn Lee (Korea)

Soo Wahn Lee received his PhD in materials engineering, University of Illinois. National Institute of Standards and Technology (NIST). Professor of Environment, Chemical and Materials Engineering at Sun Moon University since 1993. Global Research Laboratory, Osaka University since 2010. Conducted A3 foresight program between SMU, Nagaoka Polytech (Japan) and Wuhan Technology University (China). Received Chime Bell Prize of Hubei, China in 2014. Awarded by Korean Ministry of Science and Technology.



Dr. William D. Lay (USA)

Director, School of Public and International Affairs, University of Bridgeport; Chair for Criminal Justice and Human Security Bridgeport University; Harlan Fiske Stone Scholar Columbia Law School; Senior Editor of Columbia Law Review; Senior Law Clerk to Hon. Bellacosa, Justice of NY Appeals Court; co-authored articles on the South China Sea disputes in Harvard Asia Quarterly and the Comfort Women; he co-authored a book on Comfort Women Memorials in the USA.



Dr. Thomas J. Ward (USA)

Dr. Thomas Ward is President and Professor of Peace and Development Studies at Unification Theological Seminary (New York). He frequently features in Washington Times, East Asia Quarterly, and Asia-Pacific Journal. He served as Fulbright Scholar in France, Foreign Ministry Research Fellow in Taipei, and Visiting Research Fellow in Beijing. Dr. Ward authored March to Moscow—The Role of Reverend Sun Myung Moon in the Collapse of Communism (Paragon 2005).



Mr. Bill Gertz (USA)

Bill Gertz is an internationally recognized national security journalist, currently National Security Columnist for Washington Times. Author of 8 books, including 4 national bestsellers, his most recent is *Deceiving the Sky: Inside Communist China's Drive for Global Supremacy*. Published in *National Review*, *The Weekly Standard* and *Air Force Magazine*, served as media fellow at Hoover Institution at Stanford, and lectured at the FBI National Academy and the Central Intelligence Agency.



Dr. Werner Fasslabend (Austria)

Dr. Werner Fasslabend graduated from Vienna University with a Doctor of Law degree. Now President of the Austrian Institute for European Security Policy, he served as Austria's Federal Minister of Defense (1990 to 2000). During his tenure he initiated far-reaching reforms in the Ministry of Defense, upgrading the organization of his nation's armed forces to new modern threat scenarios. He held the office of President of the Austrian Parliament (2000–2002).



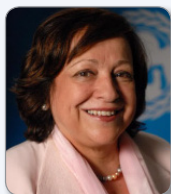
Dr. Emmanuel Dupuy (France)

Dr. Emmanuel Dupuy is the currently serving President of the l'Institut Prospective et Sécurité en Europe. Furthermore, he contributes as both journalist and consultant on the Cabinet d'Ingénierie Stratégique pour la Sécurité, as teacher of geopolitics at the Institut d'Etudes des Relations Internationales, and expert researcher on salient geopolitical issues for various institutions linked to the French defense policy. One of his key interests is geopolitics of the Mediterranean region.



Dr. Oumar Ndongo (Senegal)

Professor of American Literature & Culture in Senegal. Pres. of SYSTOSENAGAL, PANAFSTRAG, UPF. Expert on Governance, Peace and Security, Regional Integration, Gender and Peacebuilding. Director of W. Africa Civil Society Forum; Mano River Peace Forum reconciling Liberia, Sierra Leone, and Guinea; West African Research Association. Fulbright scholar, IRFWP Peace Ambassador. Fluent in English, French, Wolof, Pular, Spanish. Published in African and American journals on conflict resolution, preventive diplomacy, regional integration.



Dr. Rima Salah (Jordan)

Dr. Rima Salah was Deputy to UN Secretary-General in Central African Republic and Chad. UNICEF service: Director for West Africa, UNICEF emissary to Vietnam, Burkina Faso and Pakistan. She wrote Security Council Resolutions defending minorities. Awarded by NGOs, UN member states and French Legion of Honor. Dr. Salah chaired the Early Childhood Peace Consortium. She was co-editor of MIT publication, *Pathways to Peace: The Transformative Power of Children and Families*.



Hon. Erna Hennicot-Schoepges (Luxembourg)

Born in Luxembourg, educated in Music, Philosophy and Literature at Conservatoire Royal de Musique (Bruxelles), Ecole Normale (Paris), Mozarteum (Salzburg), and Centre Universitaire (Luxembourg). Mayor of Walferdange (1988–2004). Speaker of Parliament (1989–1995). Led Christian Social Peoples' Party (1995–2003). Government positions: Minister of Culture, Religion, Higher Education, Research and Public Works. European Parliament MP (2004–'9).



Dr. Joseph F. Dunne (USA)

Prof. Joseph Dunne – Trial Attorney in New York; Adjunct Professor of Trial Skills and Advocacy, University of Bridgeport; Coordinator of Mock Trial and Moot Court programs, University of Bridgeport; Prof. Dunne is an accomplished trial attorney with a history of over 100 jury trials to verdict and hundreds of litigated settlements in his portfolio, and has repeatedly coached the University of Bridgeport Mock Trial Team in competitions at Yale University.



Dr. Cole Durham Jr. (USA)

Founded Intl. Center for Law and Religion Studies, Brigham Young U.; President, G20 Interfaith Assn.; Professor of Law, Central European U. (Budapest), U. of Vienna, Gutenberg U.; Board of Experts, Intl. Religious Liberty Assn.; President, Intl. Consortium for Law and Religion Studies; Editor of *Oxford Journal of Law and Religion*. Authored books and articles on law and religion, including *Encyclopedia of Law and Religion* and *Religious Organizations and the Law*.



Dr. Frank Kaufmann (USA)

Frank Kaufmann is President of PWPA USA, Editor in Chief of New World Encyclopedia, and Board Chairman and President of Inter Religious Federation for World Peace. He teaches at New York area Universities and graduate schools, and is an educator and consultant for religion and spirituality for several global youth organizations. Frank Kaufmann is the recipient of numerous, international peace awards, and academic awards.



Dr. Charles Selengut (USA)

Charles Selengut is an expert on sociology, psychology and politics of religious fundamentalism and new religious movements. He publishes books, articles and monographs on Islamic, Christian and Jewish fundamentalists in international relations. He is the author of Sacred Fury: Understanding Religious Violence. Contributed to McArthur Foundation at University of Chicago "Project on Fundamentalism." National Endowment for the Humanities fellow at Harvard University, and a 1997 finalist for the Carnegie Professor of the year award.



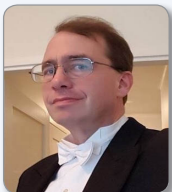
Dr. Jason Wasden (USA)

Dr. Wasden is a finance and policy professional. Works with the commercial sector, legal, grants, boards, commissions, agencies, technology, safety, medical and infrastructure improvements, and finance committees. Conducts legislative analysis and media outreach campaigns for multi-jurisdictional initiatives. He is well known and highly respected for his professional excellence in relationship management, knowledge sharing, and policy enactment among all strata of executives, government officials, and constituents.



Dr. Cheryl Lau (USA)

Dr. Lau was elected as the Secretary of State of Nevada, an office she held with distinction from 1991 through 1994. General Counsel to the U.S. House of Representatives, 1995. Visiting professor at Harvard University. Judge Pro Tempore for the Carson City Justice and Municipal Courts. Chair of the National Commission for the Renewal of American Democracy. Now serving as a Commissioner on the State of Nevada Commission on Ethics.



Dr. Joseph Terwilliger (USA)

Joseph Douglas Terwilliger is an American geneticist and professor of neurobiology at the Columbia University Medical Center and the New York State Psychiatric Institute. In addition to his scientific research, he has taught evolutionary genetics periodically at Pyongyang University and was co-Principal Investigator on an exchange program between Columbia University and Kim Il Sung University in North Korea. He has also worked over the years together with the American Association for the Advance...



Dr. Ben Pazi (Israel)

Hanoch Ben-Pazi, Chair of the Dept. of Jewish Philosophy at Bar Ilan University (Israel). Researches Contemporary Philosophy and Modern Jewish Thought, especially the philosophical writings and Jewish thought of Martin Buber, Franz Rosenzweig, Emmanuel Levinas, and Jacques Derrida. Writes on ethics, contemporary philosophy and modern Jewish thought in the framework of religious studies and interreligious dialogue. Wrote: Interpretation as Ethical Act: Hermeneutics of Emmanuel Levinas: Educational Contract: Responsibility, Hopefulness, Alliance.

ORGANIZING COMMITTEE

STAFF MAKER OF THE COMMITTEE



2020 World Peace Academic Conference

Opening Ceremony

Opening Plenary Session

Moderator: Dr. Thomas Selover
President, PWPA-International, USA

Inaugural Remarks

Dr. Sung-Bae Jin
Chairman, Hyo Jeong Academic Foundation, Korea

Special Keynote Address

Dr. Sun Jin Moon
Senior Vice President for WFPW International, USA

Congratulatory Remarks

Dr. Kim Heon-Young
President of the Korean Council for University Education, Korea

Congratulatory Remarks

Dr. Modadugu Vijay Gupta
Recipient, Sunhak Peace Prize, India

Congratulatory Remarks

Hon. Marc Vogelaar
Ret. Ambassador the Netherlands, Netherlands



Dr. Sun Jin Moon

Senior Vice President, Women's Federation for World Peace International. Chair, Pacific Rim Education Foundation, Hawaii, USA



Dr. Kim Heon-Young

President Kangwon National University, Korea
President of the Korean Council for University Education, Korea



Dr. Modadugu Vijay Gupta

Fisheries scientist. World Food Prize, 2005, considered the "Nobel Prize for Food and Agriculture." First Sunhak Peace Prize recipient, for creating an aquaculture system for the poor, rural populations in Asia, Africa and the Pacific, India



Hon. Marc Vogelaar

Former diplomat. Former Dutch Representative, Organization for the Prohibition of Chemical Weapons (OPCW). Former Director for External and Public Affairs at the Korean Peninsula Energy Development Organization (KEDO), Netherlands

Special Keynote Address¹

Dr. Sun Jin Moon

Executive Vice President, Women's Federation for World Peace International (WFWPI), USA

Good afternoon everyone. Wasn't that a wonderful beginning summit program? And I hope you enjoyed your lunch, and you had some time to eat in between these sessions. If not, please digest well here while you listen. So good afternoon distinguished scientists, scholars, and researchers participating in the world summit 2020 here in Seoul Korea. We offer you our sincerest welcome. I deeply appreciate and wish to recognize the special presence of eminent scholars, Dr. Gupta that is coming, and ambassador Marc Vogelaar. I'm deeply honored to address all of you today on behalf of my parents. And I'm grateful that you have made the long, arduous, and I'm sure, unnerving journey to the East, in spite of current dangers. Your resolute attendance is a courageous testament to your character along with thousands of global leaders and experts from all fields of endeavor who are committed to serving humanity in order to bring about world peace. Let us give a gallant round of applause to everyone gathered here today.

The 2020 World Summit is a combination of not only my father's eminent legacy and profound works over his 92 years on earth, serving God and humanity. It is also the combination of my Mother's equally visionary work that is expanding day by day, brining higher enlightenment, mutual prosperity, and offering substantive solutions to the suffering around the globe. Although my father passed away eight years ago, there's not a day that goes by that my Mother and the worldwide organizations that they established, including, of course, UPF and the organizations of the world summit, are not working to create a better world. By convening leaders from all fields, such as International Association of Academicians for Peace, which has created a multispectral approach to peace and is moving forward pragmatically and whole heartedly to create a world of harmonious interdependence, mutual prosperity, guided by universal values to achieve a world of peace in which we all live together as one family under God. As human beings, we all stand on common ground and share core ideals and values. We all want a world of peace. Yet, unfortunately, we live in a world that often manifest the polar opposite of our heartfelt hopes. Humanity and creation

¹ Summary: Address to the International Association of Academicians for Peace (IAAP), World Summit 2020, KINTEX, Korea, February 3-5, 2020

are in crisis everywhere we look. A new crisis is more real or heartbreaking or factual than what is happening to our earth, our shared habitat, and our only current home. I bring about the earth because it is the womb of all life on this planet. It is the nourisher, the nurturer, the ultimate giver of life. But what is happening to our Mother Earth? Is it being taken care of responsibly? I'm sure you're all scholars, you can answer freely. No, right? No, we are destroying our planet, and we are destroying each other in the process. So whether you are esteemed scientist academic or courageous youth activist, like Greta Thunberg on the news, we are all called to address this crisis. Pointing out that climate change poses a threat to our very existence. And this threat looms over every man, every woman, and every child with no exception. As a collective web of life and a myriad of species, and the natural resources on earth are disappearing at an alarming rate, a select few are profiting, pillaging and polluting, as the rest of the creation is left to suffer the consequences. The balance of all life titers on a dangerous ledge due to ignorant human activity. We see this happening all around us. As all the elements to sustain life are polluted, causing harm and loss, due to increased chronic illness, starvation, malnutrition, and new resistant diseases, such as coronavirus as we are experiencing right now, we are displaced by habitat and agricultural loss due to devastating floods, storms, drought, and fires - prayers go out to Australia- and extreme weather events. All these factors combined pose an existential threat to all life on earth because all facets of life are interconnected. The world economy vacillates as securities are more insecure, giving rise to desperation, mayhem, protests and unrest, a rise in violence and suicide, conflict and wars, mass migration, the refugee crisis, political polarization - at the domestic and international levels - threatening past global alliances and cooperative interdependence. As nationalism, political divisiveness, religious clashes, cultural and racial, social inequalities fracture our communities, we spiral out in a dangerous cycle of creating more global unrest. And as survival and self-preservation grow, and as the ethics to service to others and cooperation decline, we are dangerously becoming a desperate global family at war with each other. So I ask us in this room, where is the solution? I think we have the most brilliant minds gathered here all over the globe. Where is the solution? Would anybody like to offer their answer? No one. (laughs) Or maybe you are the greatest minds, and you're thinking too much about it. So you're thinking 'ok I'll prove it in my science or in my dissertation.' But no, really, think about it. Where is the solution? (Right here) Oh, Dr. Wilson was that you? Oh, it was you at the door. Well, absolutely. It is right here. Everyone in this room, you are the solution. You are here united for peace, right? And this is what brings us together. This is hope. This is the inspiration. This is the answer. So that is why I applaud everyone at this conference, each and every one of you, for your great works are the keystones to peace and the potential unified solution to all these sad realities. We're at the deepest level. There is a crisis of the human heart and conscience. You risked your own safety to serve, educate, and enact real change for the sake of humanity and creation.

Yesterday we had a session with ICUS (International Conference on the Unity of the Sciences), and professor Luc Montagnier was giving his speech about his role in science and his noble laureate of courses on viruses. And was saying what he created had stemmed other research that was potentially harmful to humanity through science he did not have a hold on,

but that went after his research. And I was surprised at that moment that he was disclosing and being so transparent saying 'I need to tell all of you the dangers that my research spurred on.' As he listed every single one, I was like, 'this is a man of groundbreaking human service, how many millions of people did he save? But yet so humble, accountable, responsible, was a man of conscience.' Right? And heart. To think about, am I still serving humanity?, and questioning it. So I was deeply moved by that. And I would say even my father would be deeply moved by that. I would like to share with you my father's autobiography, A Peace-Loving Global Citizen, if you haven't read it yet. He knew that the true value of all life and the preciousness of this earth can only be sustained by people with higher consciousness, who have a sincere heart and true love for all life. This is my father's words. I must say them correctly. He's looking down from Heaven.

“Human selfishness is destroying nature. Competition for the shortest route to economic success is the main reason that the earth's environment has been damaged. We cannot allow the earth to be damaged any further. Religious and academic people must lead the way in the effort to save nature. We must work quickly to awaken people to the preciousness of nature and the urgent need to restore it to the rich and free state it enjoyed at the time of creation.”

“The best environmental movement, however, is one that spreads love.”

“The shortcut to protecting nature is to develop a heart that loves nature. We must be able to shed a tear at the sight of even a blade of grass that we see as we walk along the road. We must be able to grab ahold of a tree and weep. We must understand that God's breath is hidden inside a single boulder or single gust of wind. To care for and love the environment is to love God. We must be able to see each creature created by God as an object of our love. With our spiritual eyes opened, we could see that a single dandelion by the roadside is more valuable than the gold crowns of kings.”

Such beautiful words. It is my sincere hope that your deliberations go well during this important conference. And that we can bring these values, and my father's dream and words, into reality through harmonious action. Nothing is more important than to find solutions to our environmental human security crisis. And we can only accomplish this noble goal by uniting together as scholars and as brothers and sisters who seek holistic, scientific, spiritual, and educational practices to divert the trajectory of current unsustainable practices that plague our existence. When we lose our universal humanity and spirituality, the sad and tragic issues listed above will escalate. That is why my parents, and especially my amazing Mother, Dr. Hak Ja Han Moon, has invested everything to address this environmental crisis that confronts us all today. She has been at the forefront, creating the Sun Hak Peace Prize, reviving the International Conference of the Unity of the Sciences, and convening the world summit and inaugurating this world peace academic conference with esteemed global scholars, emphasizing the importance of finding solutions to the crisis with both internal and external solutions in nature. She knows that the search for practical answers scientific, academic, and technological innovation, as well as prudent, wise government and economic policies, we will be able to find those solutions. But she also knows, ultimately, that the internal

awakening of higher consciousness is the most vital answer to all the crisis we see today. Respect for the natural world, this universe, and everything that surrounds us, all derive from the same origin, our Divine Creator. She has been urging us always to seek fundamental solutions to global environmental issues. That is, we must pursue the path of science and knowledge, and yet at the same time, the path of spirituality and universal ethics and wisdom. God, who is the origin of love, created humankind in order to share and multiply love. We were even created to be partners and co-creators with God. If we grow in wisdom and in love, true love that is, we will become to treat the natural world with the same loving heart that God has towards this world. We will be life-givers who resemble God, and in this respect, we would become worthy to become the true stewards of nature. We would then help bring about a great harmony amongst the Great Creator, humankind and nature, and organic and integral unity. In this way, we are able to protect the main and restore the natural world, creating a sustainable balance between human beings and our wider environment.

Some have argued that religion is the source of our problem. That pipositing its existence of a supreme spiritual God and that religious people do not respect the science of the material world. Others point their finger at academia or scientific mentality that they do not respect the sacred divinity of all creation. However, it is not a religion nor academics knowledge that is the root cause of our environmental crisis. It is a lack of harmony and cooperation between the two. Academia is the greatest instrument that can liberate and emancipate, improving our knowledge, and improving our lives. Religion enlightens us to the divine universal value of loving and living for the sake of all life and creation. Only when there is unity in knowledge and spirituality can we realize our true internal and external potential for peace. That is why united together; we must overcome this environmental crisis. It affects not only those of us who are alive today but our future generations as well. That is why your work, your research, your publications, and our deliberations here are so very important. We are part of a global team of peacebuilders working to make this world a better place and to save each other from disaster. This is the reason we are all here today because we care, we are concerned, and we are committed to bring about a lasting change. Don't you agree? Yes, right? (Yes) Good to see that you're all still with me. Thank you.

The great themes of the World Summit 2020 are interdependence, mutual prosperity, and universal values. I believe these themes are important as we pursue solutions to these global crises. Please consider them while you deliberate, remembering we are all interconnected. What happens in China, as we see with the coronavirus, affects our entire planet. Not only the safety and health of the world's population but also the economy, politics, and the environment. In closing, I want to say that it has been an honor to address the 2020 World Peace academic conference today. I understand your next sessions will include topics such as Dr. Moon's Declaration of the End of Communism and a Vision for Peace, as well as the God Conference, and the World University Presidents Conference. I applaud my parents' visionary achievements in this providential work. The movement of CAUSA (Confederation of the Associations for the Unification of the Societies of the Americas) and the PWPA (Professors World Peace Academy) has shown us how to overcome communism and offer a vision for world peace. All the world's problems stem from a pervasive influence of atheism. So the

God Conference is utterly essential in bringing unity and harmony to an end the religious conflict. Finally, through university education, and using the Hyojeong character education textbook, True Parents are inspiring young people everywhere with their grand vision of a God-centered bright future. As a daughter of True Parents, I deeply appreciate the topics of your four sessions.

In commemoration of the great academic achievements of my parents, my Mother's vision for IAAP and its establishment during the summit is another milestone on the road to peace. This 2020 Academic Conference aims at reconciling the fractured human family, long divided by ideology, doctrine, and religion, and with life-giving love and wisdom of oneness under our Divine Creator, may we come together realizing we are one peace-loving global family under God is the only path to true peace. We must cooperate with each other for the sake of this planet, which is our only home. I know the fruits of the summit will bear wholesome fruits. As my father said, only love can bring us all together as one family, and only God can unify us all. Home is where God's heart is and where the entire human family and creation are loved, nurtured, cherished, sustained, and guided to prosper. Let this loving idea heal the earth and be our lasting legacy for future generations to come. I deeply thank you for your contributions to peace. May God always bless you and your precious families.

Congratulatory Remarks

Dr. Kim Heon-Young

President of the Korean Council for University Education, Korea

Distinguished guests, university presidents, honored guests and participants! I am Kim Heon Young, the president of the Korean Council for University Education. First of all, I would like to congratulate you on hosting the 2020 World Peace Conference of University Presidents, where we will explore the role of university education of the next century in ensuring peace and prosperity for mankind

I would like to express my deep gratitude towards the President Hwang Sun-Jo of Sun Moon University, and the university presidents who have come heretoday from both Korea and abroad, as well as our other distinguished guests and representatives of international organizations. Your efforts would make it possible for all of us to successfully host today's conference.

Education is the root of the Korean "Miracle on the Han River", where our nation was able to achieve staggering economic growth in record time, as well as build a mature democracy based on the values of freedom, equality, peace, and human rights. Education has spared no effort to nurture talented people even in the ruins of war. It has enabled our proud nation, currently listed as number 4 in rates of higher education on a list of 35 OECD countries, to list its name among the members of the so-called "30-50 Club" - That is, a list of countries with a population of over 50 million and an Gross National Income per capita (GNI) of \$30,000 per year. It will be only the seventh nation to reach this benchmark in world history.

This was possible only because of the help of the international community. Including all of you here today. When Korean children were some of the poorest in the world just seventy years ago, UNESCO supported the production of Korean elementary school textbooks. By reading their contents, those children were able to nurture their talent, foster their hopes and dreams, and grow up to lead the development of their nation.

Korea has never forgotten this support from the international community. In order to pay the world back for the help we received, the Korean government as well as many Korean universities are making great efforts to promote international development cooperation in

various fields such as education, agro-fishery, and health care in countries all around the world.

Additionally, this international conference is even more meaningful in the context of a divided Korea. The peaceful unification of the Korean peninsula, which remains the only divided nation in the world, is the long-cherished common aspiration of our people, as well as the natural outcome for peace among people from all over the world.

In particular, I am grateful that many countries, including Korea, are making Constant efforts to realize the dream of reunification on the Korean peninsula in the aftermath of the declaration of peace made at the 2018 Pyeongchang Olympics.

As has been the case for the past 70 years, we will not give up on the dream of peace on the Korean peninsula and will continue in our efforts through the cooperation of people here and in the international community.

In this sense, today's forum, featuring experts from all over the world and discussing the theme of "The Peace of Humankind and the Role of University in the Next 100 Years" is very meaningful.

I hope that this will be a valuable time for us to take a step together towards world peace and the mutual prosperity of all mankind by bringing together the insights and wisdom of all those participating today.

Once again, thank you all for coming. I wish you health and happiness.

Thank you.

Congratulatory Remarks

Dr. Modadugu Vijay Gupta

Biologist and Fisheries scientist; Sunhak Peace Prize Laureate, India

Thank you very much for your introduction. Distinguished ladies and gentlemen, Rev. Sun Myung Moon and Dr. Hak Ja Han Moon, through various humanitarian projects they have undertaken, and through their lifelong commitment, on inspiring us to work for a peaceful, compassionate, and happy society.

Coming from an agricultural and fishing background, working in food security and nutrition security, I would like to say something with thought for food security and worldly peace. When we talk of peace, we are looking at peace at the family level, at the national level, at the regional level, and also at the global level. First and foremost, we need to be food secured if we are to have lasting peace. We cannot teach peace to a hungry man. God has given humanity plenty of natural resources to enjoy and survive. But we the humans in our greed has abused these resources for personal benefit and supremacy. The world has enough resources to feed the existing population and also to meet the demand of the growing population, which is expected to be more than nine and a half billion by 2015 through the use of technical and scientific innovation that has resulted in an increase in production. We have seen a green revolution wherein cereal production has doubled or tripled, blue revolution, which has led to increased production of aquatic animals, and the white revolution, which has led to the surplus in milk production in the world. In spite of these scientific innovations leading to an increase in production, over 800 million people go to bed hungry every day. Of these, nearly 500 million are in conflict zones areas. War and persecution have displaced more than 65 million people, many of whom have fled their own countries, placing a grave burden on low and mid-income countries hosting them. By the year 2013, half the two-thirds of the world's food are expected to live in states which can be classified as fragile. We cannot blame God for not giving us enough but to blame ourselves for this humanitarian crisis resulting mostly from conflict, misuse of power, resource, and natural calamities. Nearly 80% of humanitarian spending today, these in response to war and conflict among ethnic and religious groups for supremacy and otherwise also could have been used for better living and a peaceful society. To develop strategies to elevate this instability, we need to understand how food insecurity drives instability and in shared activities by addressing natural calamities such as droughts and floods. Unless we break the nexus between poverty and instability, we cannot hope for lasting peace. The relationship between insecurity and instability brings back

to the origin of human existence long before the establishment of modern agriculture and the globalized food distribution chain. Even in today's modern world, the relationship between food insecurity and instability is strong and has implications of how the world addresses these challenges. While this link is intrinsically understood in policy and academic sectors, it is receiving more attention in recent years due to an increase in conflicts and humanitarian crises, which is further exacerbated by climate change. To address this food insecurity and humanitarian crisis, we have to take a multifaceted approach through natural, social, and political sciences and the commitment of political leaders and religious groups when necessary. Just by increasing production itself will not be able to solve the problem as we have seen poverty and food insecurity even in developed countries due to the uneven distribution of wealth. We need to educate people at different levels for them to realize true happiness comes not through an increase in wealth and power or authority, but through compassion, supporting and sharing the resources and wealth, following the preaching of Rev. Dr. Moon, that we are one family under God.

I related something I had worked in Bangladesh, one of the least developed countries in the world, for about ten years, looking at how we can improve the food security and the youth security of the people in the rural areas. While working in rural areas, I found that women, because there really are constraints of whatever it is, who was not contributing anything to the household incomes, more betterment of the nutrition. So we were trying to involve these rural women into fish farming, and through this, they were able to increase their incomes, better health, and also they were wives in society. Till then, they were just like slaves. When the food is not sufficient in the house, first the man gets whatever is cooked, then comes the children, and last is the woman that eats the food. In most cases, it was only just a little bit of rice and salt, nothing else for the women to take. By involving these rural women into income-generating activities, they were able to improve their nutrition security and also able to send their children to receive an education.

These increments have since resulted in an increase in family income, better nutrition, and education of children and peace among family members. An increase in the availability of food also reduces conflicts in a society that has a part of it. We need to apply science to all kinds of problems facing humanity through work, starting at a grassroots level, and taking it further to the political level.

Thank you.

Congratulatory Remarks

Hon. Marc Vogelaar

Ret. Ambassador, the Netherlands

You may admire my courage or suspect me of arrogance, for daring to address you on Korean affairs as a European, right here in Seoul. In my country, which lies partly below sea level, we have a saying for this: "bringing water to the sea".

Yet, Europe offers a different perspective on the Korean Peninsula, and *vice versa*, for two reasons. Europe has no colonial history with regard to North East Asia. And most European nations have diplomatic relations with North Korea (they all have such relations with the ROK of course), which allows us to be "critically engaged".

May I start with a question to the audience?

In which country are people *most*, and where are they *least* afraid that a new Korean War is brewing?

In the US almost half the population (47%) believes that there will be another Korean War. Only Turkey and Brazil have a higher score still.

But a real surprise, at least for me, was to find that the least concern over a resumption of armed conflict in the region exists in a country that has most reasons to be scared: the Republic of Korea, with 21%.

Thus only 1 out of 5 South Koreans appear to be much concerned by the threat from across the DMZ. This is a surprise indeed, given the present geopolitical situation and the military imbalance between the two neighbours. More about that in a moment.

Peace – being the banner under which we meet at this conference - is more than the absence of war. It involves freedom, trust, tolerance and cooperation.

For dreamers peace is: no more armed conflicts, everlasting love and harmony. Sounds too good to be true! But if I don't allow myself to believe, I might just as well give up being a Christian. And don't *all* world religions offer a perspective of peace and love if we love one another, instead of quarrelling?

For sceptics there always have been - and will be - conflicts, armed or not. Competition and violence lie in the character of mankind, they will argue. Aren't all creatures struggling to survive?

I'll happily leave this existential question for others to sort out. What is new, though, is that for the first time in the history mankind is now able to annihilate the entire planet.

The nuclear capabilities of nuclear weapons states have now reached such staggering levels in terms of explosive potential that our planet may be destroyed within hours, either intentionally or by miscalculation.

In this sense, the nuclear doomsday machine that stands ready to be triggered to cause an apocalypse for God's entire creation, is no less a threat than the climate change by which we are collectively suffocating.

I reckon everyone in this room, not unlike the roughly 75 million inhabitants of the Korean Peninsula and presumably the entire world population, is a warm supporter of peace. *World peace!* But what *is* world peace?

A lot of common place definitions come to mind. But one peculiarly nasty aspect of global peace and security is, that it takes many nations to preserve it but that it can take a single one to unravel it. Building peace is a joint effort whereas a war can be triggered by a single actor.

There is however a good side to all this: diplomacy! I used to be a diplomat myself. We are the midwives of peace. Politicians are its parents. Diplomats make it happen, provided that the effort stems from good will and sincerity on all sides involved.

During the 37 years of my career as a midwife I have been struck by one "delivery" in particular that proved highly complicated, and that continues to give me headaches: the North Korean nuclear crisis.

This baby got a name *before* it was even born: "Peace on the Korean Peninsula". Its mother has been pregnant for over half a century. Some pessimists claim it's a stillborn, but I believe that it is to see the light of day at some point, although we are probably looking at a cesarean delivery. Normal midwife practices just won't work in this case.

My first involvement with the North Korean nuclear crisis goes back to 1999 when I became a director with the Korean Peninsula Energy Development Organization (KEDO). Based in New York, KEDO had been created in 1995 (25 years ago as we speak!) to implement the Agreed Framework, concluded between the USA and the DPRK in 1994.

The idea behind this arrangement was to deliver energy supplies to the DPRK in exchange for a freeze and ultimately the dismantlement of the North Korean nuclear weapons programme.

Our job in New York was to build two lightwater reactors in Hamhung province, North Korea. Such reactors make it virtually impossible to produce the highly enriched uranium that is needed for the production of nuclear weapons.

We also had to negotiate all necessary technical and legal arrangements that allow for such a complex operation to become a reality. I visited North Korea several times in those years. And Seoul of course, where we cooperated closely with companies like KEPCO.

Politics proved stronger than common sense (because KEDO *was* a sensible project!) when in 2002 the plan suddenly collapsed. The Americans found evidence that the North had secretly continued their nuclear weapons programme. North Korea justified this by accusing the US of breaching the Agreed Framework by delaying its implementation.

As we stood by, we the staunch supporters of KEDO - such as the ROK, Japan and the EU - watched the entire plan coming apart. All that is left is a few buildings along the coast near Kumho. A white elephant if there ever was one on the Korean Peninsula. Not to mention the disbursement of over 1,5 billion USD out of a total estimated cost of 4,6 billion USD. That bill was mainly footed by South Korea and Japan.

The Six Party Talks, led by China, tried to restore the peace process. But especially after 2006, date of the first North Korean nuclear test explosion, all further attempts availed to nothing much, in spite of the laudable and at times spectacular summits between North and South, and more recently in Singapore and Hanoi.

So why wasn't this baby, called Peace, born, if everyone wanted it so badly?

Time does not permit to dwell on that analytical question. Let me limit myself to just two observations, and then make a suggestion from the sidelines, or from my European armchair if you like, on how one might break the deadlock.

Because we *are* looking at a deadlock.

First a military deadlock. The North has a stunning 1,2 million active soldiers, two times more than the ROK. The DPRK is also dominant in other conventional weaponries, such as submarines. Seoul's millions are within reach of the North Korean artillery. The DPRK is also believed to possess important supplies of chemical and biological weapons.

And now the DPRK has even become a nuclear weapons state, with a number of rudimentary yet dangerous nuclear bombs, and with tactical and strategic missiles to deliver them to a whole range of countries. Unlike some other nuclear weapons states, North Korea is quite vocal at informing the international community of its newly developed capabilities and of its hostile intentions, should it be attacked.

Then there is the diplomatic deadlock. Washington wants CVID first; Pyongyang won't negotiate before sanctions are lifted and does not seem prepared to give up its newly acquired nuclear capability anyway. Pyongyang's creed is sovereignty and self-defense, not submission.

Sanctions are hurting the DPRK's economy but don't prevent it from growing significantly as of late, albeit "with a little help from my friend" as the Beatles would put it. Multilateral attempts to break the deadlock, like the Six Party Talks, also failed. It is clear that the DPRK is not likely to be forced into submission.

Let me not speculate on the reasons behind North Korea's brinkmanship, which is laying an immense burden on its population. Many years before the Kim dynasty did so, Stalin used the argument that his country was surrounded by enemies to justify the heavy toll of self-defense.

Let us rather take a look at how we may get out of this mess, which is keeping millions under threat and in misery, without a prospect for development and without human rights, and which continues to destabilize the region, if not the world.

Here I turn to my toolkit as a midwife for peace. Peace will take away the pain and ultimately cure all other problems. Peace is a precondition for the return of trust. And trust is a prerequisite for cooperation and, if desired, reunification. But how to trigger it?

All countries involved in the North Korean crisis are stakeholders in regional peace and stability. Hence, they should all be prepared to make concessions. In my view, the key to solving the crisis is addressing the North Korean perception of threat.

The regime feels surrounded by enemies. Hence security guarantees are the starting point. These can be put on the table as part of a broad deal which would - once agreed - entail a *simultaneous* implementation of the following five chapters: (a) CVID under the NPT, (b) a peace treaty to finally end the Korean War, (c) lifting of sanctions, (d) massive development assistance and humanitarian aid, and (e) restoration of human rights.

Why simultaneous? A step-by-step approach like the Agreed Framework proved the wrong formula, in that any delay or other setback in implementing the agreement served as an alibi for the other side to suspend *its* part of the deal. This undermined mutual trust.

Obviously an agreement of the scope that I just advocated could never be implemented in one go. It would take years to make it work.

It should also be reversible and unique. If one of its five components were not duly implemented the other ones would be reversed. There would and should be no "second bite at the apple". It would be a once-and-for-all deal, and probably the last chance to avert what few South Koreans but many outsiders anticipate: war.

A gamble?

Quite. But the risk is worth taking. Not gambling may have catastrophic consequences.

And the risk is limited. The international community keeps the option of reverting to its present policy of containment if North Korea doesn't play ball.

But if it does, there will be a huge peace dividend for some eight billion stakeholders. That's all of us.



2020 World Peace Academic Conference

Section 1

**Reflections on and Vision for the Unity
of Sciences**

The Unity of Religion and Science in Rev. Sun Myung Moon's Founding Vision for ICUS

Dr. Andrew Wilson

Unification Theological Seminary, New York, USA

Rev. Sun Myung Moon, the founder of the International Conference on the Unity of the Sciences (ICUS), believed that God created the cosmos based on one unitary Principle that should be equally the basis of religion and the basis of science. Since Rev. Moon's central calling was to reform Christianity and make it a force for peace, he spent most of his life teaching the Principle in religious terms. Yet science was never far from his concern.

At the very beginning of his ministry, in 1951 while sojourning as a refugee in Pusan, he wrote *Original Text of the Divine Principle (Wolli Wonbon)* where he laid out the basics of this Principle. Although it is mainly a religious text, over 100 manuscript pages of *Wolli Wonbon's* 700 pages are devoted to science. It covers such scientific topics as Newton's theory of universal gravitation, electromagnetism, and Darwin's theory of evolution, seeking to incorporate them into a framework of the one Principle that he saw operating throughout the creation. Here we can find the germ of his vision for ICUS, which he founded some 20 years later.

Yet because Rev. Moon put the major emphasis on his religious mission, few of his scientific ideas in *Wolli Wonbon* were taught in his later sermons or discussed among members of his church. The manuscript was never published, and the ideas about science that he set forth in its pages remain largely unknown to this day.

I have the double privilege of access to the manuscripts of *Wolli Wonbon* and partnership with a capable Korean translator, Hee Hun Standard, who is exceptionally experienced in working with the Rev. Moon's words. For the past decade she has dedicated herself to *Wolli Wonbon* as her life work. As a result of this effort, today it gives me great pleasure to introduce its teachings about science in this essay.

Rev. Moon's Vision for the Unity of Religion and Science

Rev. Moon did not share the view of many Christians that religion and science are fundamentally in conflict with each other. To him, science was not inimical to faith. Nor did he take the position that science and religion addressed two fundamentally separate spheres of reality, i.e. facts vs. values, or the “how” of things vs. the “why” of things. Rather, he viewed science and religion as complementary paths of human striving for knowledge about the same reality, and that they eventually will arrive at the same endpoint.

We can recognize Rev. Moon's regard for science from his biography. In 1935, while he was a student, Rev. Moon received his calling from God. During World War 2, he studied electrical engineering in Japan at a technical school affiliated with Waseda University. Thus, he began his career as a faith leader with a background in science. Those years at Waseda were the period when he developed his theology, the Divine Principle, which he based on deep study of the Bible. Yet given his electrical engineering training, we should not be surprised to find that his original text of the Divine Principle is peppered with concepts and logic drawn from science, such as “plus and minus,” “action,” “interaction” (give-and-receive action), “circular motion,” “orbit,” and “circuit.”

In this regard, we may liken Rev. Moon to a Pierre Teilhard de Chardin (1881-1955), a French Jesuit priest who was trained in Paleontology and took part in the discovery of the Peking Man and numerous scientific expeditions in China. Teilhard boldly incorporated evolution into his theology. He saw the evolution of species in the plant and animal world as part of a larger movement of cosmic evolution that led to human beings, and then through human beings to universal convergence with the Divine, which he called the “omega point.”¹

His views were condemned by the Catholic Church, which is not surprising given the tradition of Christian rejection of science that goes back to back to the Church's condemnation of Galileo and in the twentieth century its rejection of Darwinian evolution. Yet posthumously he has come to be held in high regard, praised as a man of vision by both Pope Benedict XVI and Pope Francis.

Rev. Moon taught that God created the cosmos based on one unitary Principle. This Divine Principle, rightly understood, is equally the basis of religion and the basis of science. The weaknesses of current religion, as well as its distrust of science, is largely the result of its ignorance of the Principle. Faith should not be the enemy of science, yet conventional faith relies on beliefs in miracles and supernatural occurrences. For example, the creation of the universe in six literal days or Jesus' Second Coming on the clouds.

Conventional religion sometimes stands against science because it places God and God's work outside of science. Yet in Rev. Moon's view, God always acts according to His own laws. Science has been striving to understand God's laws in their material aspect; it only needs to expand its purview to recognizing their spiritual aspect.

¹ Pierre Teilhard de Chardin, *The Phenomenon of Man* (New York: Harper, 2008).

Rev. Moon believed that once religion understands the Principle, it will cease to operate out of blind faith. The Bible, which fundamentalists take as a rallying-flag for opposing such scientific facts as the age of the earth and the evolution of species, would be understood as a textbook of truth written for an older, unscientific age.² Enlightened religion will understand that the purpose of faith should be understood in the context of God's creation that operates by scientific laws. Once they grasp the laws of the Principle, religionists will recognize that the Bible's account of the creation, that God created it in six days and formed Adam out of dust, was written in symbols and metaphors. The verses of Genesis are not meant to be taken literally. The truth lies behind its symbols, but people who take them literally will not fully understand that truth.

The same is true for heaven, the goal of faith. Religious believers who aim for life in heaven, believing it to be a supernatural world where they will partake of heavenly delights, may renounce life in the world and even despise their bodies. However, Rev. Moon believed that God created the earth to be the place of His-Her ideal, where people find their true value by practicing true love. Although people have fallen far away from that ideal, it ever remains God's purpose. Religious faith became necessary after the Human Fall, but ultimately it should give way to original life in the world, in harmony with God. Thus:

The world that religion describes appears to be another dimension, a far-away world that has nothing to do with reality. However, this is a serious misunderstanding... In fact, the world that faith is seeking is the original world of reality. It is the World of the Principle that the first human beings should have begun and walked in. However, since they lost that world, it put God in a position where He had to recover it by introducing religious faith. (*Wolli Wonbon*, pp. 483-84)³

Religion has had this important purpose historically. Yet today the supernaturalism of religion is one reason why many modern people have rejected faith. They see more hope in the promise of science, which is providing a better life to people in the real world.

Since God created the world by a scientific Principle, it should be the mission of religion to uncover this Principle and share it with the world. The Principle that religion teaches should be consistent with the laws of science; this will revive religion as relevant to the modern world.

People in the contemporary world regard religion to be unscientific; however, this is a serious misunderstanding. It is because religion's central purpose is to fulfill the Principle. Since God exists, would God not require what is truly scientific to

² *Exposition of the Divine Principle* (New York: FFWPU, 1996), p. 104.

³ Sun Myung Moon, *Wolli Wonbon*, manuscript translated by Hee Hun Standard with Andrew Wilson, unpublished. Page numbers refer to the original manuscript pages. All quotations unless otherwise stated are from this source.

arise from religion? If so, the highest religion should unify the principles of science with His supreme Principle. (p. 445)

Thus, religion and science are two different paths to understanding the same reality, which must in the end be governed by one principle. Religion approaches this matter from above, seeking to know God. What remains is that it should, through such teachings as the Principle, relate its knowledge of God to the physical world. Science approaches this matter from below, seeking to understand the physical world. The cutting edge of science is looking beyond that world to discern its cause.

Consider that nineteenth-century science was solidly materialist. With Einstein's theory of Special Relativity, it began to recognize that the cause of the material world is energy.⁴ Today scientists are looking at information as a cause, which takes science one step further beyond materialism. But where does energy come from? Where did information begin? Is there a deeper Cause, the One Source of even energy and information? Thus, Rev. Moon wrote that science is on a trajectory to find God.

Contemporary science views living things as having originated from matter. Yet why does it view the origin or beginning as matter? To fulfill its mission to elucidate this question, science has been climbing up trying to find the Origin and has arrived at the stage of discovering the Theory of Relativity. (p. 463)

Meanwhile, religion needs to understand God and the principle of God's creation in a more realistic way. When it does, it can begin to descend to address material reality and even guide science. Thus, the two fields of endeavor are destined to meet in the end:

The course of science has always been to climb up in search of fundamental Principle. Religion, which has this fundamental truth, must descend to science. It is the hope of humankind that they will unite with each other, because when the two unite in the Principle, the world will be restored to the One. (p. 464)

Rev. Moon envisioned that the world would one day become an "advanced scientific civilization, in unity with God... where no one has any shred of doubt about Him." (p. 479) Knowing that the task of building such a world would require the joint efforts of scientists themselves, he envisioned a time when leading scientists would join with theologians in the endeavor to unite science with God's purpose to build the Kingdom of heaven in this earthly world. Is this not the very work of ICUS?

The world of modern science should help people to testify to God and unite with Him. This responsibility lies not only with the religious world but also with today's scientific world. Should not science make the entire world become the Kingdom of Heaven in its material aspect?

⁴Specifically, the formula $E = mc^2$.

This is God's purpose for the world of science and the way for it to bring joy to God. Hence through this writing, I am appealing not only to the leading religious people but also to the leading scientists to save the entire world together. It is because an ideal world is the hope of all people throughout the world. (p. 480)

A second source of Rev. Moon's involvement with science was his encounter with Dialectical Materialism. He saw first-hand the misery it brought to humanity. Moon encountered it amid circumstances of unbearable suffering in a labor/extermination camp at Hungnam, North Korea, where he was required along with all the prisoners to attend weekly lessons in Dialectical Materialism and criticize the "errors" of his beliefs. Armed with the Principle that he had found, Rev. Moon could see through the errors of communist theory, which captivated the minds of people and turned them into murderers. It gave him the inner strength to resist communist indoctrination while he was a prisoner in Hungnam Labor Camp.

One of Dialectical Materialism's chief claims is that it is scientific, and thus most suitable to this scientific age. Hence, conventional religious faith is not adequate to refute it. If the theory of Dialectical Materialism were to be refuted, it would need to be critiqued based on a deeper understanding of reality that embraced material truths within the larger framework of God and God's purposes. Rev. Moon believed that his theory, the Principle, was adequate to the task.

Advocates of Dialectical Materialism present their view that the origin of the universe is matter in motion. However, before they make such an assertion, should they not consider why motion, the action of forces, began? However, because they do not know the Principle, the law of heaven, they deny the One, the Original Being who is the source. (p. 464)

Rev. Moon commissioned a disciple, Dr. Sung Han Lee, to develop a theoretical critique and counterproposal to communism based on the Principle that he had elucidated in *Wolli Wonbon*. In the 1970s and 80s this teaching was disseminated through the CAUSA movement to millions of students, government officials and military officers to block the spread of communism by winning the ideological struggle for hearts and minds. This effort was largely successful. It was a milestone of Rev. Moon's ministry that is addressed in a concurrent session of this conference.

The Basic Standpoint of Rev. Moon's Teachings in Relation to Science

a. The Principle of Object Partners and the Forces of the Natural World

Here I want to briefly summarize a few of Rev. Moon's teachings in *Wolli Wonbon* that are relevant to his viewpoint on science. The first is that every entity exists in relationship with another entity and on a path to become that entity's object partner. An object partner relationship arises when separate entities (call them counterparts) relate by giving and receiving, and through that process they unite as object partners.⁵ Out of such object partner relationships arise all forces for existence, multiplication and action. As such, the Principle proposes a relational ontology, rejecting the Aristotelian concept of "substance" in favor of a dynamic view of reality as composed of countless interactions among entities at every level.

The paradigm of object partners applies to religion, in that the individual's relationship with God, which should not be limited only to receiving grace but also to giving back—to serving God by loving other people and all creatures. It applies to the family, in the giving and receiving between husband and wife, which on the physical level can produce a child and on the emotional level creates oneness. It applies in business, where successful businesses not only seek to profit from customers but also to give benefits that foster customer appreciation and loyalty.

Even God exists for eternity based on the Principle of giving and receiving between the poles of yang and yin as object partners within Godself. Thus, *Wolli Wonbon* describes the process of creation as akin to electrical induction, whereby an alternating current in a radio antenna creates a corresponding action in surrounding space. In like manner, the giving and receiving between the poles of God's duality in the realm of Spirit induces the same action in the physical world, leading to the formation of positively and negatively charged particles, of living things in pairs, and of human beings, man and woman. The giving and receiving between the poles within Godself induces love between man and woman, who unite in love to participate with God in the act of creation—the conception and birth of a child. Creation thus conceived is a process of unfolding dualities at ever higher and more complex levels, following a consistent formula from one stage to the next.

Applied to science, the Principle requires that existence and force arise by the giving and receiving of elements. In chemistry, bonds between atoms are formed by giving and receiving of electrons. Living things exist by myriad actions of giving and receiving in breathing, the circulation of blood, digestion, etc. All this is self-evident and well supported in science.

⁵ This concept of object partner is different than that in *Exposition of the Divine Principle*, in which object partner describes a position correlative to subject partner. *Wolli Wonbon* lacks the term "subject partner." It defines an object partner as a being in a relationship of unity, in contrast to a "counterpart" which is a more distant relationship.

Applied to physics, *Wolli Wonbon* criticizes Newton's theory of gravitation as lacking the concept of giving and receiving. Gravity is purely a force of receiving (attraction); something needs to counterbalance gravity with a force of giving (repulsion). He would rather look at the Solar System holistically, as a balanced system where the gravitational force of attraction is precisely balanced by the centrifugal force of the planets' revolution in their orbits.

The fundamental forces that shape the physical world, which Rev. Moon called *universal prime forces*, or just *prime forces*, are gravity (coupled with its centrifugal counterpart) and electromagnetism.⁶ The action of these forces arises by forming a circuit of giving and receiving, as described above. Modern physics recognizes that electromagnetism is mediated by the giving and receiving of virtual photons; this is in accord with the Principle that Rev. Moon describes. Some theories of gravitation posit the giving and receiving of gravitons. Physics adds two more fundamental forces: the weak force and the strong force operating within the atomic nucleus, which likewise operate by the interaction of particles (W and Z bosons for the weak force, gluons for the strong force).

However, *Wolli Wonbon* has a more expansive concept of prime forces than only those studied by physicists. For example, it identifies an animal's life-force, by which it lives and reproduces, as a prime force.⁷ It also calls the force of the conscience that connects human beings with God a prime force.⁸ Each of these prime forces operates by the same principle as the prime forces of the physical world—by the action of giving and receiving between object partners.

Thus, wherever Rev. Moon saw the workings of the Principle in nature, he saw it as affirming the basic data of science, even while sometimes calling out science for having only a partial understanding of the fundamentals of its action. He also recognized the Principle to be operating at more levels than just those that science describes. Here we can understand the reason Rev. Moon proposed that ICUS take a thoroughly interdisciplinary approach to knowledge.

b. The Growing Period of Creation on the Path to Truth, and the Theory of Evolution

A second concept of the Principle that is relevant to this discussion is the concept of the growing period. A plant begins as a seed, grows, and becomes a mature plant capable of propagating itself. Human beings begin as babies and grow through a course of twenty-one years to maturity. A growing period has a beginning and an end that speaks to purpose; hence it can be called a "path to truth." All beings go through a growing period, through stages from

⁶ This is not the same concept as that in *Exposition of the Divine Principle*, which describes universal prime force as a single vertical causal force from God.

⁷ *Wolli Wonbon*, p. 532.

⁸ *Wolli Wonbon*, p. 538.

formation to growth to reach perfection where they completely embody their truth. It is different from evolution, which is open-ended.

The history of the Earth can likewise be seen as traversing a growing period towards the realization of its highest potential, as the planet becomes a home for life, sentient beings and ultimately human beings—the beings who can relate directly to the Creator.

The path of truth is a process, from the formation stage to the growth stage and from the growth stage to the completion stage, and then to become a perfect object partner. Accordingly, lower beings have as their purpose of existence to become constituent elements of higher beings, so that higher beings may realize the purpose to become perfect object partners. By thus uniting as an aggregate, they proceed on the path to become object partners of perfect original human beings.

All beings in the cosmos are in positions that link with one another, advancing in stages from formation to growth to completion. In this way they take positions as if elements that cooperate for the perfection of the original human beings,⁹ in order to join in body with the Supreme One. (p. 587)

In all of creation, the principle of growth applies. The Principle differs from Darwinian evolution in positing a purpose to all life. Life is teleological, endowed with purpose that reaches its fulfillment in human beings who can embody God in all His-Her fullness. When human beings appear who realize God's love, they in turn endow God's love to the animals and plants around them. Thus, life is an unfolding process for the purpose of God realizing Him-Herself in the physical world. The phenomenon of life is itself actually the growth-stage unfolding of an even greater process that began with the Big Bang and the origin of the stars and planets, including planets like Earth that can support life. Its endpoint arrives with the perfection of human beings. Human beings are the climax of the entire process, who unite the entire physical universe in oneness with God.

In other words, God created the universe with the purpose to manifest the fullness of love with beings who could become His object partners. For this, such beings need to be sensible to the emotions of God's Heart, have the intellectual capacity to understand God's thought, and be able to act according to God's Will. It goes without saying that these beings of God's purpose are human beings.

What, then, is the purpose of the original human beings? It is to enable the cosmos to secure the position of counterpart in front of the Creator, the Center, and then to perfect its position as His object partner so that it can fulfill the purpose of giving and receiving with Him. (p. 590)

⁹ The term "original human beings" in *Wolli Wonbon* refers to the first human beings Adam and Eve had they not fallen. Fallen human beings, who lack an adequate connection to God, cannot fulfill this purpose. Nevertheless, the purpose of God's providence is to restore human beings back to that original state.

Seen in this light, the process of evolution has an endpoint: first, human beings who can relate directly with the Creator, and second, the animals and plants that human beings can interact with—by consuming them as food, appreciating their beauty, and utilizing them to create a comfortable living environment, whereby they too can make circuits of giving and receiving with the Creator.

Not only that, this oneness should extend to human societies and even the entire world, so that the entire world can move as one. This view of creation has much in common with Teilhard de Chardin's concept of the Omega Point.

Therefore, we should quickly establish a world with a structural form which represents that of the Original Human Beings.¹⁰ By so doing, once the world takes the form to relating to the Original Human Beings, the world will fulfill the purpose of the object partner.... Then, heaven and earth will unite and fulfill the purpose of the Kingdom of Heaven on earth. Then God, human beings, and the world of all things will realize the ideal of one body. (p. 602)

Darwin began with a definition of species based on Linnaeus' taxonomy and saw the problem of evolution in terms of the development of new species from precursors. Rev. Moon, on the other hand saw evolution within the overarching process of creation, which is set to purpose. Therefore, instead of viewing evolution from the perspective of individual species, Rev. Moon viewed extinct creatures as earlier stages of growth on a path that leads to contemporary animals and plants that have the opportunity to relate to human beings as object partners, and thus fulfill their purpose within God's greater purpose for the cosmos. Thus, extinct mammals like *Eohippus* and *Merychippus* are the formation and growth stages of modern horses. Dinosaurs are the growth stage of modern birds.

Created beings, passing through countless cycles, advanced through their formation period, their growth period and their completion period, with the purpose to reach perfection by becoming one body with the first human beings.

However, Darwin in his theory of evolution, looking at all things from the perspective of their classification by species, presents the logic that all species began and evolved from a single precursor entity. Being ignorant of the fact that all beings have taken a course of progressing through stages towards the purpose of fulfilling the original point,¹¹ he erected his Theory of Evolution. (pp. 597-98)

In viewing evolution from the standpoint of the Principle, Rev. Moon affirmed the fossil record and the descent of species. However, he viewed the mechanisms of evolution as described by Darwin, such as survival of the fittest and natural selection, as secondary phenomena that accompany and support the process towards realizing the overarching teleological purpose.

¹⁰ Here the Original Human beings refer to the perfected Adam and Eve of this age, the True Parents.

¹¹ "The original point" denotes prelapsarian Adam and Eve as the beginning of God's ideal.

All living things did not evolve as Darwin asserted, but progressed by stages for the realization of God's purpose of creation. They demonstrate an orderly path, and hence are in accord with the logic of evolution in some respects. (*p. 598*)

The theory of biological evolution has been so caught up in process that it is not given sufficient thought to the idea that creation has a purpose. This contrasts with the situation in astrophysics, where concepts like the Anthropic Principle are leading some thinkers to consider the role of purpose in creation.

Rev. Moon understood this purpose to pre-exist the creation itself. With reference to John chapter 1, that in the beginning was the Word, he saw the process of evolution as the unfolding of the Logos, pre-existing in the mind of God. The idea of a pre-existent Logos is not foreign to scientific thought, notably in speculations about mathematics as the scaffolding upon which the universe was built. The Principle goes much further, given that human beings are the summit of beings in the universe, endowed with self-consciousness and the ability to discern God's existence. Hence, the Logos within God's mind must have contained the plan for the human beings who would one day exist as substantial entities to fulfill God's purpose of creation. Having envisioned the endpoint, God then abstracted partial elements of the Logos to design lower beings. This is the reason animals and plants have structures that resemble the human body and mind, and why human beings can relate to all the creatures that they encounter.

With the human being as the model, God unfolded partial elements into the forms of all existing beings. ... Accordingly, human beings are structured with forms that resemble the elements of existing beings. Hence, the target beings of God the Origin were human beings, and other beings were elements on the way to completing the form of human beings. In this way, God unfolded the various forms of beings centering on human beings, with human beings as their standard. Thus, He formed the material world for human beings' happiness and comfort. This is the plant kingdom and animal kingdom. (*pp. 598-99*)

This is the opposite perspective from materialist evolutionism, with its causality from below, which holds that the resemblance of human beings to animals and plants is the result of human beings receiving the evolutionary contributions of precursor beings. Materialist evolutionism explains the higher functions and capacities of humans as the result of emergent properties of matter, but exactly how emergent properties appear remains a mystery. In my opinion, it is more parsimonious to hold the Principle's idealistic view of creation, which sees causality as beginning with God's Mind.

In this discussion, I hope you can see that Rev. Moon did not set up a sharp dichotomy between creation and evolution. He did not deny that evolution has taken place. Rather like Teilhard de Chardin, he saw the process of evolution within the larger framework of God's creation.

Whether discussing gravity or evolution, Rev. Moon avoided the conventional Christian stance that sees religion and science in irreconcilable conflict. Rather, he held that God is the greatest Scientist, and hence the theories of science should illuminate the work of God. If science can recognize the work of God behind the laws and phenomena of nature, and if religion can rise above its partial dogmas to see the universal truth that underlies all reality, then he believed that science and religion could arrive at agreement on most major issues.

The Principle states that a new existence does not simply emerge from God's Word, as some scriptures maintain. There must be giving and receiving between entities that draw them together as object partners, as well as a long process of growth from formation to completion. Accordingly, Rev. Moon understood that no matter how much truth his word contains, it could remain but a dormant seed unless talented scientists and religious thinkers add elements from their own fields of expertise to nurture its growth. Addressing the participants of the 16th ICUS in 1987, he said,

The complicated problems of the world cannot be fully understood simply within the narrow perspectives of individual fields of knowledge. Their solution is beyond the capability of any single specialized society of scholars. This is because the problems of the world are essentially the problems of the human being. A human being has both a physical body with material desires and material senses and a spiritual self with spiritual desires and spiritual senses. The world is nothing but an extension of the human being with these two-fold aspects; in other words, the interrelationship of human beings with their two-fold aspects determines the order within societies and among nations. This is the reason why multi-disciplinary research for solving the world's problems has to significantly consider such factors as religion, culture, art, and so on.¹²

Thus, we can recognize that Rev. Moon's abiding purpose for ICUS, which remains its purpose today, is to be a special venue for discussions among scientists and theologians to develop bridges between the sciences and the fields of religion and human values. As participants freely share their diverse viewpoints and expertise in dialogue at the highest level, they are contributing toward achieving a world where material truth and spiritual truth are one, and where the achievements of science, united with the truths of religion, are the foundations of a peaceful and flourishing world.

¹² Sun Myung Moon, "Founder's Address," ICUS XVI, Atlanta, GA, Nov. 27, 1987. tparents.org/Moon-Talks/SunMyungMoon87/SunMyungMoon-871127.htm. Accessed January 14, 2020.

The Unity of Religion and Science in Rev. Sun Myung Moon's Founding Vision for ICUS

Dr. Andrew Wilson

Unification Theological Seminary, New York, USA

The Unity of Religion and Science in Rev. Sun Myung Moon's Founding Vision for ICUS

God created by one unitary principle

Equally the basis of religion and science

Rev. Moon's central calling was in the religion field:

- To reform Christianity
- To make religion a force for peace

Yet he did not neglect science



Rev. Moon addresses ICUS
16 (1987)

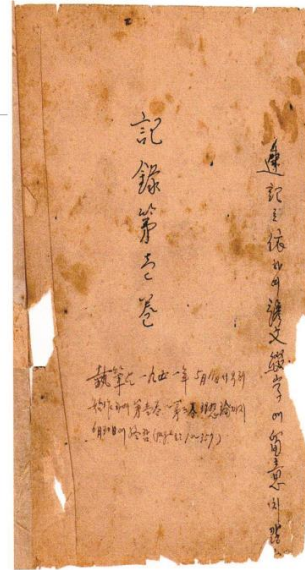
Wolli Wonbon

Rev. Moon's handwritten manuscript (1951)

100 manuscript pages devoted to science

- Gravity
- Evolution
- Electromagnetism
- Formation of the Solar System

The germ of his vision for ICUS



Efforts for Science and Technology

International Conferences for the
Unity of the Sciences



Industrial enterprises



Science and Religion

Not fundamentally in conflict

- As Evangelical Protestants believe

Not two separate, parallel spheres of reality

- Fact vs. value
- How vs why

Complementary paths to knowledge of the same reality

- Eventually arrive at the same point



ICUS 14 (1985)

Rev. Moon



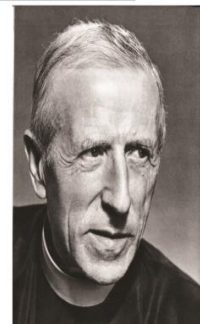
Studied EE in Japan, at a school affiliated with Waseda University

Also studied the Bible to clarify the truth as it pertains to religion

Developed his theology, the Divine Principle

Incorporated scientific concepts to describe the nature of God and creation

Teilhard de Chardin



Paleontologist, expeditions in China

Jesuit priest and theologian

Saw Darwinian evolution as subset of cosmic evolution

From matter to human beings to the Omega Point

Condemned by the Church in his lifetime, now praised as a man of vision

One Unitary Principle

Religion ignorant of the Principle

Knows God, but not the Principle by which God created

Relies on faith, takes the Bible literally

Distrusts science because it contradicts the Bible

When religion understands the Principle, it will recognize the Bible as symbols and metaphors

Truth lies behind the symbols

The natural world that science investigates operates based on the Principle

The Principle by which God created the cosmos

Science in studying the natural world is in fact studying the nature of God

The True Goal of Faith Is God's World on Earth

Had there been no Fall, science would have developed rapidly from the beginning of man

Religion only became necessary due to the Human Fall, to fix the human predicament

The world that religion describes appears to be another dimension, a far-away world that has nothing to do with reality. However, this is a serious misunderstanding... In fact, the world that faith is seeking is the original world of reality. It is the World of the Principle that the first human beings should have begun and walked in. However, since they lost that world, it put God in a position where He had to recover it by introducing religious faith. (WWB, 483f.)

The Highest Religion Should be Scientific

Religion took a detour into supernaturalism

In fact, religion should be in accord with science.

This is the purpose of the Principle that Rev. Moon discovered

People in the contemporary world regard religion to be unscientific; however, this is a serious misunderstanding. It is because religion's central purpose is to fulfill the Principle. Since God exists, would God not require what is truly scientific to arise from religion? If so, the highest religion should unify the principles of science with His supreme Principle. (WWB 445)

Two Paths to Knowledge of the Same Reality

Religion from above, beginning with God, should connect God with the physical world

Science from below, investigating the physical world, seeks to understand its cause

- 19th century science was materialistic
- Einstein's theory of special relativity: the cause is energy
- Today scientists are looking at information

Contemporary science views livings as having originated from matter. Yet why does it view the origin or beginning as matter? To fulfill its mission to elucidate this question, science has been climbing up trying to find the Origin and has arrived at the stage of discovering the Theory of Relativity. (p. 463)

The Two Paths are Destined to Meet

This becomes possible when religion understands the Principle

The course of science has always been to climb up in search of fundamental Principle. Religion, which has this fundamental truth, must descend to science. It is the hope of humankind that they will unite with each other, because when the two unite in the Principle, the world will be restored to the One. (p. 464)



Rev. Moon addressing ICUS 6 (1977)

Vision of Advanced Scientific Civilization in Unity with God

The world of modern science should help people to testify to God and unite with Him. This responsibility lies not only with the religious world but also with today's scientific world. Should not science make the entire world become the Kingdom of Heaven in its material aspect?

This is God's purpose for the world of science and the way for it to bring joy to God. Hence through this writing, I am appealing not only to the leading religious people but also to the leading scientists to save the entire world together. It is because an ideal world is the hope of all people throughout the world. (p. 480)

Scientific Claims of Dialectical Materialism

Imprisoned in North Korean death camp

Weekly indoctrination sessions

Weakness of conventional religion in the face of
“scientific” Communist theory

God’s creation needed to be explained as
scientific truth



Advocates of Dialectical Materialism present their view that the origin of the universe is matter in motion. However, before they make such an assertion, should they not consider why motion, the action of forces, began? However, because they do not know the Principle, the law of heaven, they deny the One, the Original Being who is the source. (p. 464)

Rev. Moon’s Teachings that Relate to Science

Principle of Object Partners

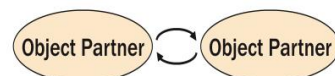
Entities positioned to be in relationship with each other

Relate by giving and receiving → become object partners

Unite to produce forces for existence and action

Universe a web of interacting entities in relationship

- Between atoms – giving and receiving of electrons
- Between male and female
- Between husband and wife – giving and receiving love
- Between a business entity and its customers – products and services in exchange for money



Giving precedes receiving

Consideration for the other leads benefits all, including the self

Induction — Between God and World

God: Giving and receiving between poles of Yin and Yang

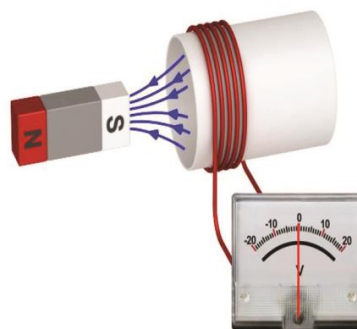
World: Giving and receiving between plus and minus, male and female

God's love induces human love

Human love excites God's love

From Spirit to matter

From matter to Spirit



Universal Prime Forces

Always involve giving and receiving, seeking balance

- **Astronomy:** gravity (attraction) and centrifugal force (repulsion)
- **Electromagnetism:** plus and minus in electrical circuits
- **Life:** inhaling and exhaling, arteries and veins, xylem and phloem, etc.
- **Spiritual life:** force of conscience and actions of the body

The Principle operates everywhere in nature, to be investigated by science

Its origin is God, who Himself operates by the same Principle

- Giving and receiving between God's yin and yang

Principle of Growth

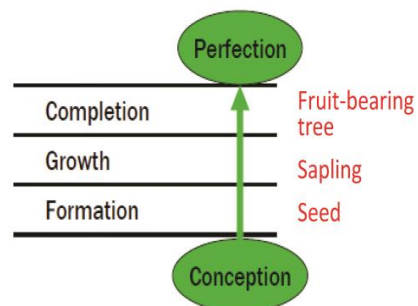
All things pass through a growing period

- Formation
- Growth
- Completion

Path to truth, to manifest its complete self

To fulfill the purpose of creation

- Of an individual life-form
- Of the planet Earth
- Of the cosmos as a whole



Path to Fulfill the Purpose of Creation

The path of truth is a process, from the formation stage to the growth stage and from the growth stage to the completion stage, and then to become a perfect object partner. Accordingly, lower beings have as their purpose of existence to become constituent elements of higher beings, so that higher beings may realize the purpose to become perfect object partners. By thus uniting as an aggregate, they proceed on the path to become object partners of perfect original human beings.

All beings in the cosmos are in positions that link with one another, advancing in stages from formation to growth to completion. In this way they take positions as if elements that cooperate for the perfection of the original human beings, in order to join in body with the Supreme One. (p. 587)

Darwinian Evolution and the Principle

Evolution describes the process of growth

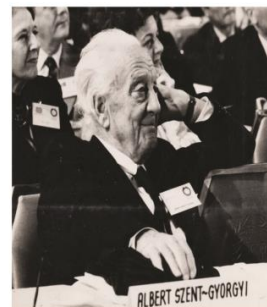
Lower animals evolve into higher animals

Part of an unfolding process from the Big Bang to human beings, the endpoint

Human beings connect with God

Then the entire cosmos realizes the fullness of love
– God's purpose of creation

Teilhard de Chardin's "Omega Point"



Albert Szent-Gyorgyi, Nobel Laureate
in Physiology or Medicine

Darwinian Evolution and the Principle

Darwin began with species

Saw problem of evolution in terms of the origin of species

Rev. Moon began with the purpose of creation

Extinct creatures are earlier stages of growth of life-forms on the path to become contemporary animals and plants

To constitute the environment for human beings

Dinosaurs are the growth stage of modern birds

Darwinian Evolution and the Principle

Darwin in his theory of evolution, looking at all things from the perspective of their classification by species, presents the logic that all species began and evolved from a single precursor entity. Being ignorant of the fact that all beings have taken a course of progressing through stages towards the purpose of fulfilling the original point, he erected his Theory of Evolution....

All living things did not evolve as Darwin asserted, but progressed by stages for the realization of God's purpose of creation. They demonstrate an orderly path, and hence are in accord with the logic of evolution in some respects. (pp. 597-98)

Teleology or Emergent Properties?

Materialist evolution explains higher functions of advanced beings as result of emergent properties of matter

How can emergent properties be explained?

Idealist view of evolution sees causality beginning in the Mind of God, which established the purpose of creation before the beginning of time

A philosophical issue

Yet the facts of evolution are not in dispute

- Natural selection
- Fossil record



Manfred Eigen, Nobel Laureate in Chemistry, Max Planck Institute, chaired committee on *The Origin of Life* at ICUS V (1976)

Science Illuminates the Work of God

Evolution is not in conflict with creation

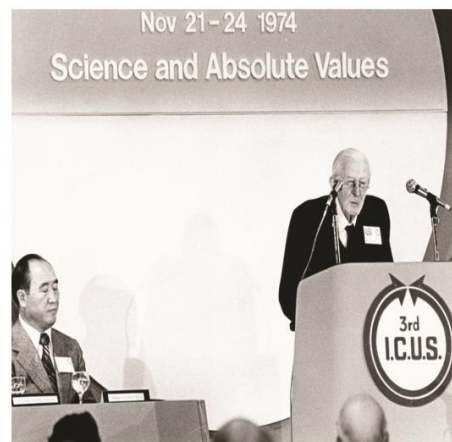
God's creation is the framework within which evolution takes place

This applies to all scientific theories

Science not in conflict with religion

God is the greatest Scientist

Lord Adrian, distinguished physiologist, Nobel Laureate and Chancellor of the University of Cambridge, was Honorary Chair of ICUS 3 (1974)



ICUS: Multi-disciplinary Discussions

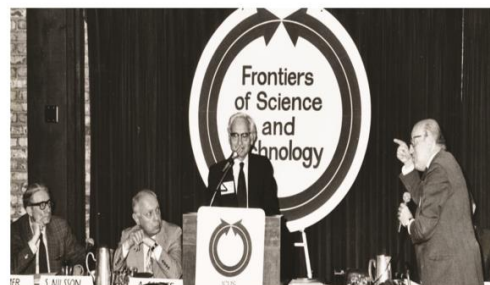
The complicated problems of the world cannot be fully understood simply within the narrow perspectives of individual fields of knowledge. Their solution is beyond the capability of any single specialized society of scholars. This is because the problems of the world are essentially the problems of the human being. A human being has both a physical body with material desires and material senses and a spiritual self with spiritual desires and spiritual senses...



Durwood Foster, Pacific School of Religion, at ICUS 14 (1985)

ICUS: Multi-disciplinary Discussions

The world is nothing but an extension of the human being with these two-fold aspects; in other words, the interrelationship of human beings with their two-fold aspects determines the order within societies and among nations. This is the reason why multi-disciplinary research for solving the world's problems has to significantly consider such factors as religion, culture, art, and so on. (Founder's Address," ICUS XVI, Atlanta, GA, Nov. 27. 1987)



Nicholas Kurti of Cambridge University asked a question to Alvin Weinberg, Oak Ridge Associated Universities

Rev. Sun Myung Moon's International Highway: Undersea Tunnel Project and its Modern-day Significance

Dr. Yoshimitsu Nishikawa

Professor, Tokyo University, Japan

Abstract

In 1981, Rev. Moon proposed the construction of a “great Asian highway” which would start from the Asian continent and eventually become an “international highway” that connects the whole world. As Karl W. Deutsch’s theory of Transactionalism suggests, it will contribute greatly to the creation of an international community that shares security and prevents conflicts between regions and countries. Changes in the international environment, such as the progress of civil engineering technology and the development of interdependence, have made tunnels and international highways a reality. In recent years, however, there has been a tendency to deny globalization and put the interests of one’s country first. It is necessary to take measures to enhance cross-border interaction, such as the International Highway initiative. Parag Khanna proposed the concept of Connectography, claiming that increasing connectivity means further growth, and that increasing connectivity transcending borders is a way to save the whole world. His theory is exactly the same assertion that Rev. Moon advocated half a century ago. As two Eurasian land powers, China and Russia, are repeating hegemonic actions, the cooperation of maritime nations is indispensable. It is particularly important to strengthen the alliance between Japan, the United States, and Korea. The Japan-Korea Tunnel project is the best proposal that can improve the relationship between Japan and Korea, which has been the worst since World War II. Japan and Korea must work together hand in hand, help each other, and join hearts to build the largest undersea tunnel of the century. The era of confrontation and hostility will end, and we will enter an era of reconciliation and cooperation. This will greatly contribute to the peace and stability of Northeast Asia.

Rev. Moon's Vision for the Unity of Religion and Science

Rev. Moon did not share the view of many Christians that religion and science are fundamentally in conflict with each other. To him, science was not inimical to faith. Nor did he take the position that science and religion addressed two fundamentally separate spheres of reality, i.e. facts vs. values, or the “how” of things vs. the “why” of things. Rather, he viewed science and religion as complementary paths of human striving for knowledge about the same reality, and that they eventually will arrive at the same endpoint.

We can recognize Rev. Moon's regard for science from his biography. In 1935, while he was a student, Rev. Moon received his calling from God. During World War 2, he studied electrical engineering in Japan at a technical school affiliated with Waseda University. Thus, he began his career as a faith leader with a background in science. Those years at Waseda were the period when he developed his theology, the Divine Principle, which he based on deep study of the Bible. Yet given his electrical engineering training, we should not be surprised to find that his original text of the Divine Principle is peppered with concepts and logic drawn from science, such as “plus and minus,” “action,” “interaction” (give-and-receive action), “circular motion,” “orbit,” and “circuit.”

In this regard, we may liken Rev. Moon to a Pierre Teilhard de Chardin (1881-1955), a French Jesuit priest who was trained in Paleontology and took part in the discovery of the Peking Man and numerous scientific expeditions in China. Teilhard boldly incorporated evolution into his theology. He saw the evolution of species in the plant and animal world as part of a larger movement of cosmic evolution that led to human beings, and then through human beings to universal convergence with the Divine, which he called the “omega point.”¹

His views were condemned by the Catholic Church, which is not surprising given the tradition of Christian rejection of science that goes back to back to the Church's condemnation of Galileo and in the twentieth century its rejection of Darwinian evolution. Yet posthumously he has come to be held in high regard, praised as a man of vision by both Pope Benedict XVI and Pope Francis.

Rev. Moon taught that God created the cosmos based on one unitary Principle. This Divine Principle, rightly understood, is equally the basis of religion and the basis of science. The weaknesses of current religion, as well as its distrust of science, is largely the result of its ignorance of the Principle. Faith should not be the enemy of science, yet conventional faith relies on beliefs in miracles and supernatural occurrences. For example, the creation of the universe in six literal days or Jesus' Second Coming on the clouds.

Conventional religion sometimes stands against science because it places God and God's work outside of science. Yet in Rev. Moon's view, God always acts according to His own laws. Science has been striving to understand God's laws in their material aspect; it only needs to expand its purview to recognizing their spiritual aspect.

¹ Pierre Teilhard de Chardin, *The Phenomenon of Man* (New York: Harper, 2008).

Rev. Moon believed that once religion understands the Principle, it will cease to operate out of blind faith. The Bible, which fundamentalists take as a rallying-flag for opposing such scientific facts as the age of the earth and the evolution of species, would be understood as a textbook of truth written for an older, unscientific age.² Enlightened religion will understand that the purpose of faith should be understood in the context of God's creation that operates by scientific laws. Once they grasp the laws of the Principle, religionists will recognize that the Bible's account of the creation, that God created it in six days and formed Adam out of dust, was written in symbols and metaphors. The verses of Genesis are not meant to be taken literally. The truth lies behind its symbols, but people who take them literally will not fully understand that truth.

The same is true for heaven, the goal of faith. Religious believers who aim for life in heaven, believing it to be a supernatural world where they will partake of heavenly delights, may renounce life in the world and even despise their bodies. However, Rev. Moon believed that God created the earth to be the place of His-Her ideal, where people find their true value by practicing true love. Although people have fallen far away from that ideal, it ever remains God's purpose. Religious faith became necessary after the Human Fall, but ultimately it should give way to original life in the world, in harmony with God. Thus:

The world that religion describes appears to be another dimension, a far-away world that has nothing to do with reality. However, this is a serious misunderstanding... In fact, the world that faith is seeking is the original world of reality. It is the World of the Principle that the first human beings should have begun and walked in. However, since they lost that world, it put God in a position where He had to recover it by introducing religious faith. (*Wolli Wonbon*, pp. 483-84)³

Religion has had this important purpose historically. Yet today the supernaturalism of religion is one reason why many modern people have rejected faith. They see more hope in the promise of science, which is providing a better life to people in the real world.

Since God created the world by a scientific Principle, it should be the mission of religion to uncover this Principle and share it with the world. The Principle that religion teaches should be consistent with the laws of science; this will revive religion as relevant to the modern world.

People in the contemporary world regard religion to be unscientific; however, this is a serious misunderstanding. It is because religion's central purpose is to fulfill the Principle. Since God exists, would God not require what is truly scientific to

² *Exposition of the Divine Principle* (New York: FFWPU, 1996), p. 104.

³ Sun Myung Moon, *Wolli Wonbon*, manuscript translated by Hee Hun Standard with Andrew Wilson, unpublished. Page numbers refer to the original manuscript pages. All quotations unless otherwise stated are from this source.

arise from religion? If so, the highest religion should unify the principles of science with His supreme Principle. (p. 445)

Thus, religion and science are two different paths to understanding the same reality, which must in the end be governed by one principle. Religion approaches this matter from above, seeking to know God. What remains is that it should, through such teachings as the Principle, relate its knowledge of God to the physical world. Science approaches this matter from below, seeking to understand the physical world. The cutting edge of science is looking beyond that world to discern its cause.

Consider that nineteenth-century science was solidly materialist. With Einstein's theory of Special Relativity, it began to recognize that the cause of the material world is energy.⁴ Today scientists are looking at information as a cause, which takes science one step further beyond materialism. But where does energy come from? Where did information begin? Is there a deeper Cause, the One Source of even energy and information? Thus, Rev. Moon wrote that science is on a trajectory to find God.

Contemporary science views living things as having originated from matter. Yet why does it view the origin or beginning as matter? To fulfill its mission to elucidate this question, science has been climbing up trying to find the Origin and has arrived at the stage of discovering the Theory of Relativity. (p. 463)

Meanwhile, religion needs to understand God and the principle of God's creation in a more realistic way. When it does, it can begin to descend to address material reality and even guide science. Thus, the two fields of endeavor are destined to meet in the end:

The course of science has always been to climb up in search of fundamental Principle. Religion, which has this fundamental truth, must descend to science. It is the hope of humankind that they will unite with each other, because when the two unite in the Principle, the world will be restored to the One. (p. 464)

Rev. Moon envisioned that the world would one day become an "advanced scientific civilization, in unity with God... where no one has any shred of doubt about Him." (p. 479) Knowing that the task of building such a world would require the joint efforts of scientists themselves, he envisioned a time when leading scientists would join with theologians in the endeavor to unite science with God's purpose to build the Kingdom of heaven in this earthly world. Is this not the very work of ICUS?

The world of modern science should help people to testify to God and unite with Him. This responsibility lies not only with the religious world but also with today's scientific world. Should not science make the entire world become the Kingdom of Heaven in its material aspect?

⁴Specifically, the formula $E = mc^2$.

This is God's purpose for the world of science and the way for it to bring joy to God. Hence through this writing, I am appealing not only to the leading religious people but also to the leading scientists to save the entire world together. It is because an ideal world is the hope of all people throughout the world. (p. 480)

A second source of Rev. Moon's involvement with science was his encounter with Dialectical Materialism. He saw first-hand the misery it brought to humanity. Moon encountered it amid circumstances of unbearable suffering in a labor/extermination camp at Hungnam, North Korea, where he was required along with all the prisoners to attend weekly lessons in Dialectical Materialism and criticize the "errors" of his beliefs. Armed with the Principle that he had found, Rev. Moon could see through the errors of communist theory, which captivated the minds of people and turned them into murderers. It gave him the inner strength to resist communist indoctrination while he was a prisoner in Hungnam Labor Camp.

One of Dialectical Materialism's chief claims is that it is scientific, and thus most suitable to this scientific age. Hence, conventional religious faith is not adequate to refute it. If the theory of Dialectical Materialism were to be refuted, it would need to be critiqued based on a deeper understanding of reality that embraced material truths within the larger framework of God and God's purposes. Rev. Moon believed that his theory, the Principle, was adequate to the task.

Advocates of Dialectical Materialism present their view that the origin of the universe is matter in motion. However, before they make such an assertion, should they not consider why motion, the action of forces, began? However, because they do not know the Principle, the law of heaven, they deny the One, the Original Being who is the source. (p. 464)

Rev. Moon commissioned a disciple, Dr. Sung Han Lee, to develop a theoretical critique and counterproposal to communism based on the Principle that he had elucidated in *Wolli Wonbon*. In the 1970s and 80s this teaching was disseminated through the CAUSA movement to millions of students, government officials and military officers to block the spread of communism by winning the ideological struggle for hearts and minds. This effort was largely successful. It was a milestone of Rev. Moon's ministry that is addressed in a concurrent session of this conference.

Rev. Sun Myung Moon's International Highway: Undersea Tunnel Project and its Modern-day Significance

Dr. Yoshimitsu Nishikawa

Professor, Tokyo University, Japan

Rev. Sun Myung Moon's International Highway - Undersea Tunnel Project and it's Modern-day Significance

World Summit 2020

February 4, 2020 / Seoul, Korea

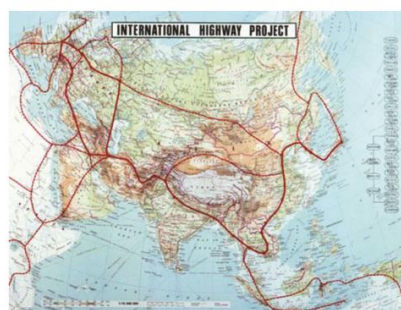
Dr. Yoshimitsu Nishikawa

Professor, Toyo University, Japan

The International Highway Project

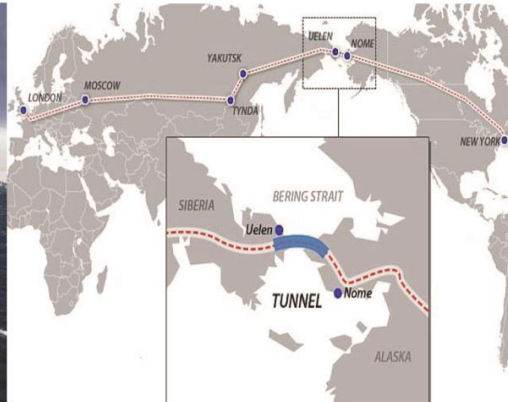


- Rev. Sun Myung Moon introduced the project at the 10th International Conference on the Unity of the Sciences (ICUS) in Seoul in 1981.



- A 'great Asian highway' which would start from the Asian continent, go through Korea and reach Japan, and eventually become an "international highway" that connects the whole world.

Bering Strait Tunnel

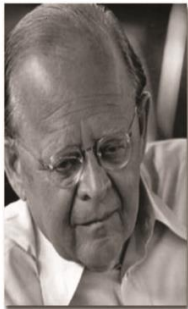


- Rev. Moon also proposed the construction of the Bering Strait tunnel between Alaska and Siberia as the core of a transportation network linking the Pacific Rim.
- This would be a 100-km-long undersea tunnel across the Bering Strait, followed by a comprehensive infrastructure system of railroad and optical communication network 6,000 km long.

The Effect of the International Highway and Tunnel

- It will stimulate traffic of people and trade, bringing great economic effects.
- The frequent interaction of people and goods through the International Highway and undersea tunnel would lead to the formation of an Asian community.
- Social equalization will be promoted through active exchanges of economic, cultural, ideological and religious activities, contributing greatly to the realization of world peace.

Deutsch's "Transactionalism" and "Security Community"



- Karl Wolfgang Deutsch (1912-1992)
- When the cross-border movement of people and goods becomes active, communication networks expand, and economic transactions and exchanges in communication, tourism, information, trade and finance deepen, bringing about changes in the attitudes and perceptions of people. This creates a "we-feeling" among the people of two countries in various levels, and such changes in consciousness will trigger the creation of a cross-border security community that will not allow war.

- Michael Barnett, Professor of International Affairs and Political Science, George Washington University
- Emanuel Adler, Professor of Political Science, University of Toronto

Technological advances make the possibility of long tunnel construction a reality



- Seikan Tunnel, Japan (1988)



- Euro Tunnel (1994)



- Bosphorus Strait Tunnel (Eurasia Tunnel), Turkey (2016)



- Gotthard Base Tunnel, Switzerland (2016)

Anti-globalism trend

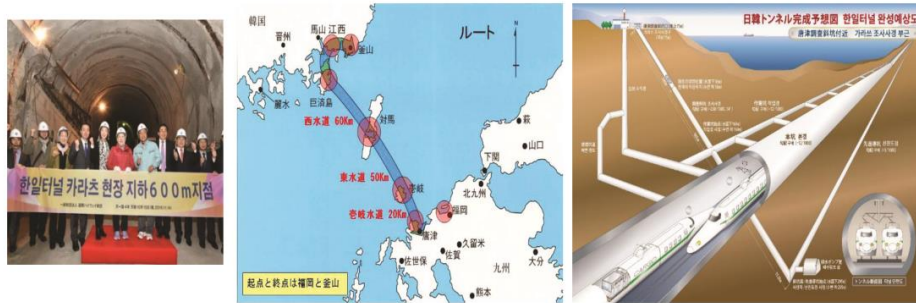
- **Tendency to deny globalization and put the interests of one's country first.**
- **As globalization progressed, the influx of refugees and migrants created problems such as security deterioration and religious conflicts. Also, since global companies moved their production bases to developing countries, workers in developed countries face an unemployment crisis.**
- **It is necessary to enhance cross-border interaction, such as the International Highway initiative.**

The concept of Connectography

- **Connectography, proposed by Dr. Parag Khanna, is a concept of connective geopolitics, emphasizing the importance of communities connecting.**
- **Global infrastructure is transforming the world system from "division to connectivity."**
- **Parag Khanna's theory is exactly the same assertion that Rev. Moon advocated half a century ago, and it shows us the greatness of Rev. Moon's foresight and contribution to the academic world.**

The Japan-Korea Tunnel

- Japan-Korea Tunnel will connect Japan and South Korea from Karatsu, Kyushu, to Pusan, South Korea.
- In order to stop the expansion of land power, the cooperation of maritime nations is indispensable, and it is important to strengthen the alliance between Japan, the United States, and Korea.



The Japan-Korea Tunnel

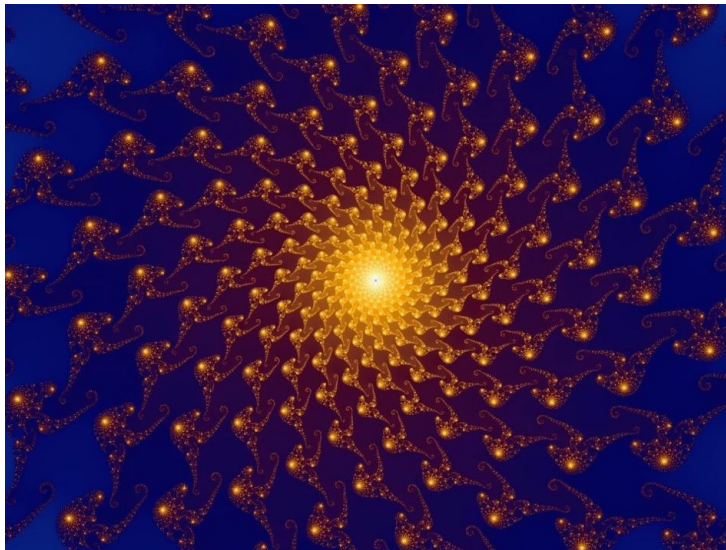
- The Japan-Korea Tunnel project is the best proposal that can improve the future relationship between Japan and Korea, or Japan and the Korean Peninsula.
- The Korean peninsula would become an important link between the Eurasian continent and the maritime nation Japan, and become the birthplace of new civilization.
- The era of confrontation and hostility will end, and we will enter an era of reconciliation and cooperation.

Uniting Natural and Esoteric Sciences: Pathway to the Deep Secrets of the Universe

Dr. William Keepin

Satyana Institute, USA, Unity Centre of Vancouver, Canada

DRAFT



Introduction

It has become increasingly clear that the mechanistic view of the world and of life is literally killing the Earth as it was configured at the time of our birth as a species, and that we urgently need to transform our relationship with our planetary home. This entails not merely developing ‘clean green’ technologies to mend our ways, but we must also restore our ancient covenant with the spiritual body of the Earth, sometimes called Gaia or *anima mundi*. Environmental science has been slow to embrace or even acknowledge this latter need, largely because of widespread rejection of spiritual principles and realities in mainstream science.

James Lovelock was perhaps the first scientist to speak of a living Earth, in the form of his Gaia hypothesis. His critical insight was inspired by the geological fact that the proportion of oxygen in Earth's atmosphere has remained roughly constant at habitable levels for the last 300 million years. Perhaps life was somehow involved not only in making the atmospheric gases, but also in regulating their quantities so as to maintain levels suitable for life itself over vast periods of time. A second insight was that life must also have regulated our planet's temperature. In other words, the planet appeared to be a huge living organism with its own remarkable emergent capacity for self-regulation.

Our modern civilization's one-sided divorce from the spiritual reality of the Earth and the Cosmos has had disastrous consequences, and the need for reconciliation is now urgent, lest we destroy ourselves and countless other species. The traditional peoples of the world have long believed in an Earth Mother who bestows life and receives the dead into her body. The ancient Greeks called her Gaia, the earthly presence of *anima mundi*, the soul of the world. Long before the classical Greek period, Gaia was considered to be the most powerful of all deities, far more important than Zeus and the Olympian pantheon. The gradual shift to mind-based abstract philosophy, and its offspring, science, led to an almost 4,000-year exile of Gaia from human consciousness, except among indigenous cultures and many of the world's spiritual traditions. Science has largely rejected religion, in part because religious beliefs and practices appear arbitrary, culture-bound, and mutually contradictory.

In this article we begin by borrowing on Einstein's relativity theory to explore the possibility of universal spiritual truth, akin to the 'perennial philosophy.' We then draw insights from quantum physics and fractal geometry to shed further light on the ontological superstructure of major world religions, which points to an ultimate shared spiritual reality that is common to them all. Next we summarize the need for science to embrace the spiritual dimension of reality, which underpins all religions despite their differences.

Relativity Theory and Universal Spiritual Truth

Einstein's special relativity theory is derived from just two simple postulates: (1) The laws of physics should be the same in all reference frames, and (2) the speed of light is universal in all inertial frames of reference. The first postulate is Einstein's personal conviction of the universal applicability of scientific laws, and the second was the unexpected (at that time) experimental finding from the Michelson-Morley experiment. Taken together these two postulates proved to be powerful medicine, and launched the profound revolution and paradigm shift of relativity theory at the turn of the twentieth century.

If we "extrapolate" Einstein's two postulates to spirituality, my sense is that a parallel revolution in spirituality and religion is indicated, and is now beginning to emerge. Specifically, analogous to Einstein's postulates, let us propose: (1) the laws of spirituality, whatever they are, should be essentially the same in all (legitimate) religious frames of reference. And (2) spiritual light is universal across the religions. For this second postulate, if

we read the scriptures and mystics, we find that the phenomenon of divine light is evidently universal. All religions speak of a supreme Light, which functions in virtually identical ways across the religions, both theistic and non-theistic. So analogous to the Michelson-Morley experiment, this is an ‘experimental fact,’ observed across all religious frames of reference.

Some examples will illustrate: This Light is called *Jyothisam* in the Bhagavad-Gita, the one Illuminator of all other lights. In the Brahmarahasya Upanishad, “God is Supreme Light. By God’s Light all else shines.” In the Qur’an, “God is the light of the heavens and the earth,” and this light is referred to as *Nur an Nur* (Qur’an 24:35), or Light upon light. In the Jewish Torah it is also referenced, “In Thy Light, we see light” (Psalm 36:9). In Christianity, “God is light” (1 John 1:5), and from Jesus, “I am the light of the world” (John 8:12), and even more importantly, “*You* are the light of the world” (Matt 5:14). Finally, in Buddhism, “Thine own consciousness ... is the Immutable Light” (Amitabha Buddha). So the second postulate (derived from scriptural foundations and mystical experience) is: there exists a universal spiritual Light, which goes by different names in different religions, and it functions essentially identically in all of them.

With these two postulates, we can glimpse the basis for an emerging revolution in spirituality and religion that parallels the earlier revolution in physics. This could help to resolve (or *dissolve*) the fruitless conflicts between diverse religious theologies and dogmas that characterize what we might call today’s “classical religion.” The essence of this spiritual revolution is this: there is *one* dynamic spiritual Truth or Reality, and there are many religions and spiritual traditions that express this *Oneness* in different ways. Thus the world’s religions are not mutually contradictory, but mutually complementary.

Einstein’s relativity theory showed that the seeming absolutes of space and time are not absolute; so too with many of the seeming “absolutes” of theological doctrines and dogmas within the various religions. What is “absolute” is the divine Light that shines through them all, and although it goes by different names in different traditions, this universal Light is the glue that binds the religions together in a radiant illumination of a single ultimate spiritual reality. The disparate religions can be viewed as different rays of this universal Light and Truth. Each ray has a unique color, is true and complete unto itself, and takes its place within the larger spectrum of the one supreme Light. No color is omitted, and no ray is superior to any other ray.

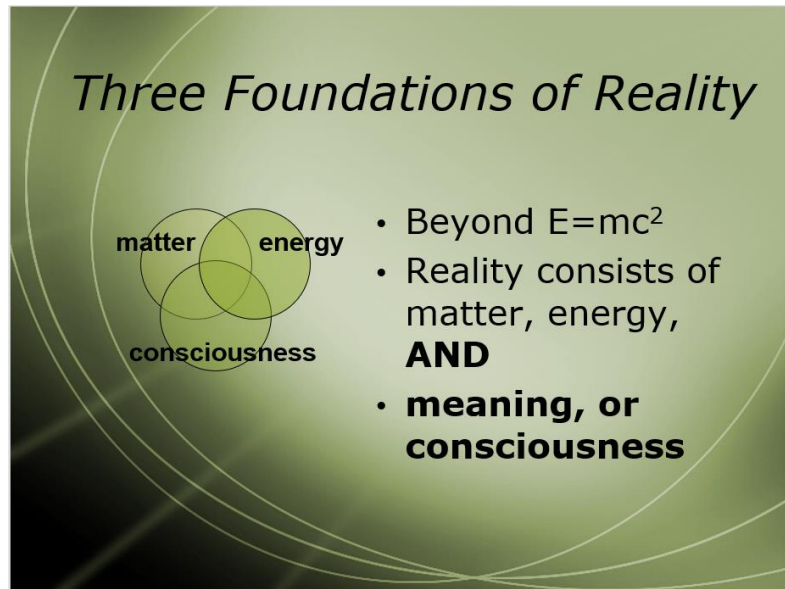
This is not to deny the rich and vast differences between the various religions, nor would a universal spirituality ever replace the particular religions, with all their unique teachings, liturgies, and specific practices. On the contrary, such a universal spirituality would *uplift and celebrate* the rich diversity of religious and spiritual faiths, while also simultaneously revealing them to be fundamentally *united* at their core in a kind of universal spirituality that is common to them all. To posit that one religion is ultimately truer than another would be tantamount to saying that blue light is better than yellow light, when both are simply emanations of one and the same universal light.

Closely related to this are striking parallels between mystical spirituality and Einstein's general relativity, which incorporates gravity and accelerated frames of reference. For example, Einstein showed that space-time does not exist independently, but only as an emergent structural quality of the gravitational field. A key implication is that space and time depend for their existence on matter. Take away matter, and space and time also disappear. So what remains in that case? Nothing remains, according to Einstein. Yet this state of nothingness is not mere emptiness, for it contains latent potential for matter, space, and time to reappear. This is in precise accord with the pioneering theory of the "implicate order" outlined briefly below, which unifies physical and spiritual domains, and was developed by physicist David Bohm who was a colleague of Einstein.

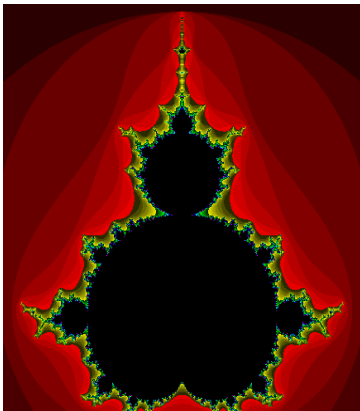
This nothingness, out of which time and space emerge, bears close similarity to the realms of nonbeing or nonexistence spoken about by mystics across many traditions. Referred to by different names—such as *shunyata* in Buddhism, *nada* in the mysticism of St. John of the Cross, *fana* or annihilation in Sufism, or the "dazzling darkness"—this realm of nonexistence is fundamental to the spiritual domain. As the Naqshbandi Sufi master Radha Mohan Lal puts it, "There is nothing but nothingness." Indeed, nonexistence is more fundamental than existence, for all existence emerges from nonexistence. Similarly, Bohm's invisible implicate order described below is more real and fundamental than the 'explicate order' that comprises the physical universe.

Bohm's holomovement and the Implicate order

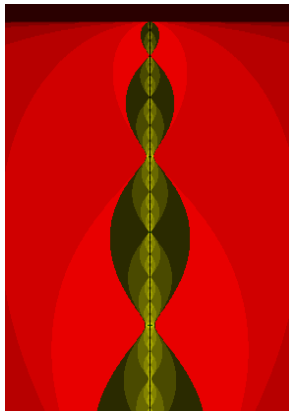
David Bohm developed a unique 'ontological interpretation' of quantum physics, which is today enjoying much renewed attention in the physics community. Bohm characterizes the fundamental nature of reality as the "holomovement," to suggest a dynamic holographic structure of reality. He had an important insight, I think long before many others did, that there are *three* fundamental components to reality (**Slide 2**), not just two. Not only energy and matter, but there is a *third* essential component of reality that Bohm called "meaning" or "consciousness" (he used the terms synonymously). The point he emphasized was that consciousness is an *inherent* part of reality and not just an abstract or ethereal quality, having its existence only in the mind. Bohm proposed that energy, matter, and consciousness are the three irreducible elements of reality, each of which contains or enfolds the other two.



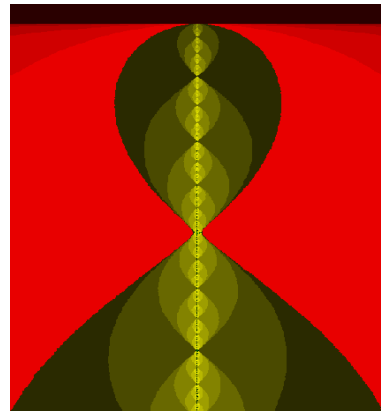
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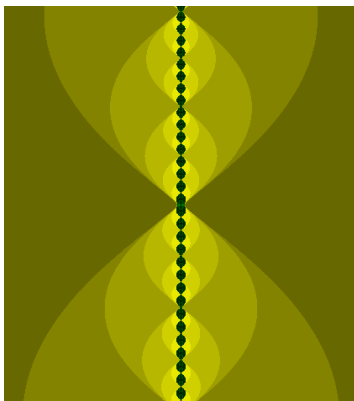
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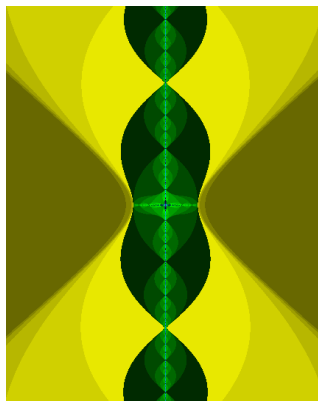
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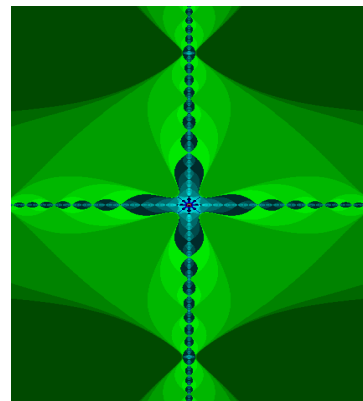
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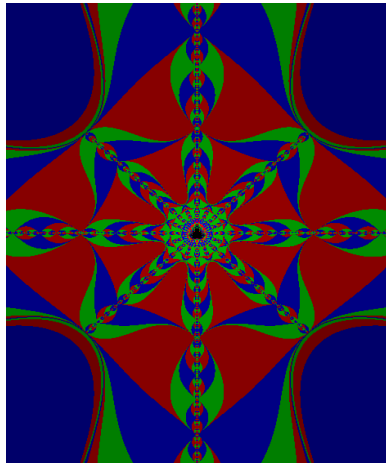
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Slide 10

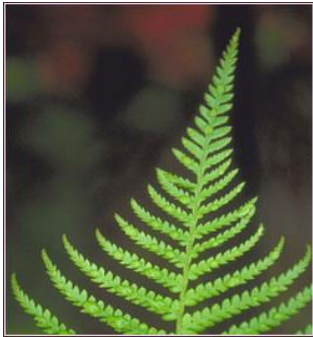
Bohm developed a theory of what he called the “implicate” and “explicate” orders. The explicate order is essentially the physical universe, and the implicate order is the rest of reality from which matter, space, and time emerge. It’s tempting to assume that the explicate order is the primary reality, with its 100 billion galaxies, each of which has 100 billion stars, whereas the implicate order is a secondary, invisible subtle energy field of some sort. For Bohm it was precisely the opposite, which he illustrated with an analogy: the explicate order (physical universe) is analogous to the foam on the waves of the ocean, whereas the implicate order is the ocean itself.

To unpack Bohm’s holomovement, one of the great recent discoveries in modern physics is that the universe has a fractal-like, or holographic structure. The simplest example of this is the Mandelbrot set, an extremely elegant mathematical figure generated in the complex plane from the nonlinear iterative process ($Z_{n+1} = Z_n^2 + Z_0$). This set is shown in (Slide 3) (It is rotated 90° from how it is usually depicted, so that it looks more like a Buddha sitting in meditation, as a metaphorical resemblance).

The Mandelbrot set exhibits self-similarity on different scales, as exhibited in Slides 4 through 10, each of which is zoomed in from the previous slide. Reaching slide 10, we find the same structure as the original, on a vastly smaller scale, 136 million times smaller. But it has all of the intricacy and complexity of the original, and if we delve into this structure, it has all of those same self-similarities embedded within it. In these images, the Mandelbrot set itself is colored black, and the boundary of the set is printed a different color for each pixel, depending on how rapidly a trajectory originating in that pixel diverges to infinity.

Fractal patterns are found throughout the natural world, as illustrated in Slides 12 through 16, showing a fern, Romanesque broccoli, tree branches, lighting, and blood vessels in a human eye. In each case, if a small part of the figure is magnified, or zoomed in, it has the same or nearly identical structure to the larger form. The technical term for this is “scale invariance,” or self-similarity. Intricate examples of fractal forms are also found in the human body, including the respiratory, circulatory, and nervous systems, all of which exhibit

branches that divide, and then subdivide again and again. The entire circulatory system of the human being has a fractal structure as does the trachea in the lungs. Once self-similarity or scale invariance is recognized, one can readily recognize fractal patterns in many natural phenomena.



Slide 11



Slide 12



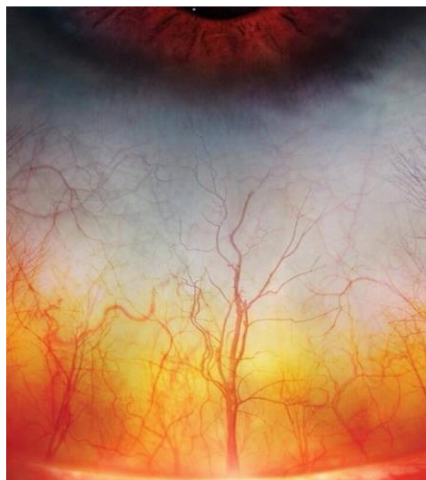
Slide 13



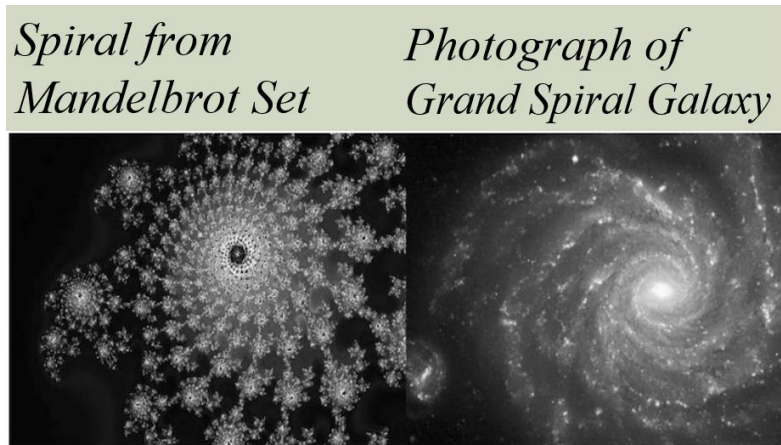
Slide 14



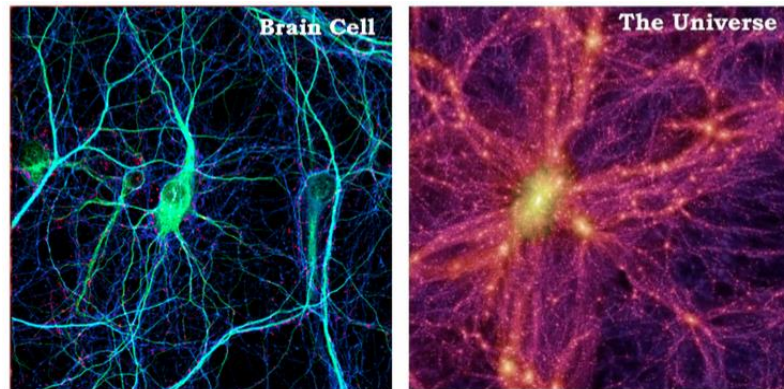
Slide 15



Slide 16



Slide 17



Slide 18

Fractals clearly possess a remarkable power to simulate the creative process in nature in some way. Other fractal examples are shown in (Slides 17 and 18). In Slide 18, on the left side is an image of neurons of the brain, with a scale of a few microns; the right side is an astrophysics image of the universe, with a scale of billions of light years across. The structural similarity is readily apparent at these vastly different scales.

Consciousness has a fractal structure

What has been said up to this point here is accepted mainstream science, but now I want to apply it to the spiritual and consciousness dimension. What I propose is that fractals are a modern scientific discovery of the ancient hermetic “Principle of Correspondence,” sometimes articulated by the ancient mystics, “As above, so below.” “As within, so without.” The microcosm replicates the macrocosm. In particular, I propose is that *human spiritual consciousness itself has a fractal structure* of some kind, and that mathematical fractals are a consequence of that larger, grander fractal structure of human or spiritual consciousness.

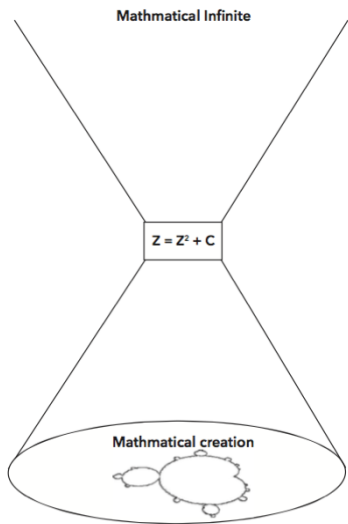
Fractals came into existence with the beginning of numbers; they are a natural property of numbers. We discovered them only because we finally developed the computing power to be able to observe them, but fractals were there all along. They were ‘born’ or created at the moment of the Big Bang (if we entertain that hypothesis)—at the very moment that oneness came into multiplicity. So fractals predate humanity, and they predate the creation of the Earth. They are inherent in multiplicity itself.

Rumi, the great mystical poet, says “The secret turning in your heart is the entire universe turning.” Rumi is pointing to a subtle cosmic process that is fully replicated in the depths of the heart. This is the essence of a core insight we find across the spiritual traditions: the inmost essence of the human being is one with the infinite, transcendent essence of the supreme reality (called ‘God’, or ‘Dharmakaya’ in Buddhism). The infinite divine is contained within the seemingly finite human being.

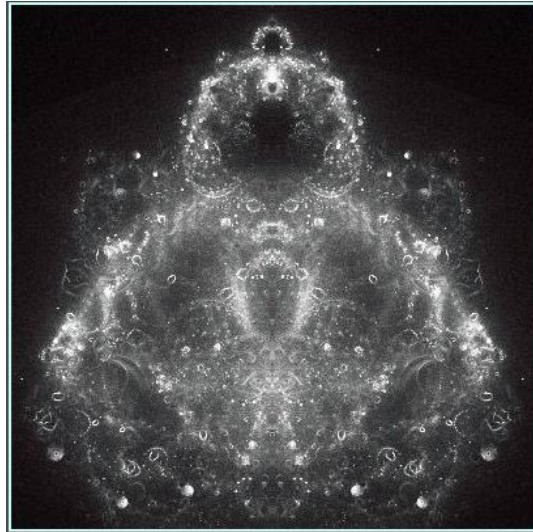
What I want to suggest is that fractals are a kind of signature or ‘foot print’ of divinity. There is a direct analogy to divine consciousness, of which the fractal is an example: at microscopic scales we find self-similar structures that are virtually identical to the macroscopic structure. The essence of the entire structure is then infinities within infinities within infinities, ad infinitum. This is analogous to how divine consciousness works, and a fractal structure of consciousness elegantly explains why mystics can rightly claim they have experienced the full divinity of God, revealed within the depths of their own being.

The fractal process in mathematics is illustrated schematically in Slide 23. At the top is the “mathematical infinite” representing all possible mathematical formulas. From this infinite set, we narrow down to one particular formula—in this case, the iterative equation of the Mandelbrot set, as shown in the box in the center. This results in the magnificent, complex mathematical structure of the Mandelbrot set, shown at the bottom of the figure.

Another depiction of the Mandelbrot set is shown in (Slide 24), using a different plotting algorithm. Here, instead of plotting the rapidity of the divergence to infinity, each pixel is plotted by how often it is visited by various trajectories. This gives an entirely different visual image of the same Mandelbrot set. It has an amazing kind of resemblance to a kind of shimmering, Eastern deity.

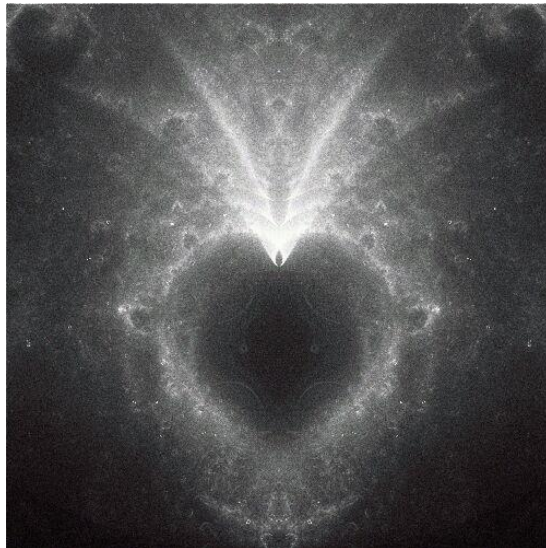


Slide 23

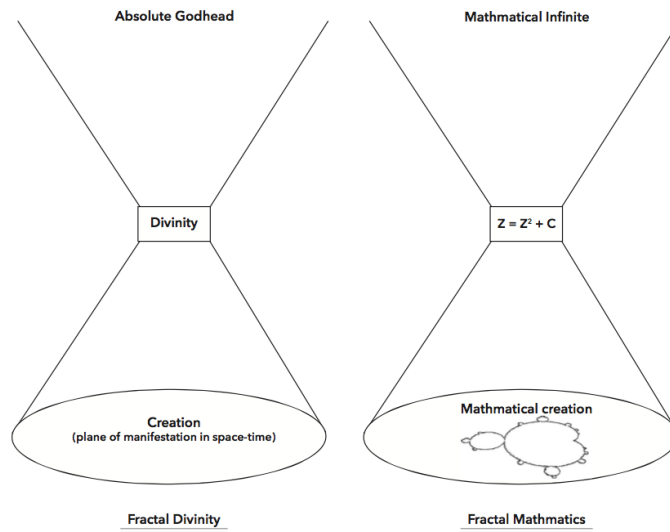


Slide 24

Note that if we zoom in to the area that appears like a “third eye” of sorts, we find something that looks quite like a cosmic heart (**Slide 25**). Orthodox scientists will say this is just a coincidence, or a psychological projection on our part, but perhaps we should be at least open to symbolic mysteries here. In any case, this figure is simply a mathematical plot of the Mandelbrot set, and it is visually striking.



Slide 25



Slide 25

Fractal consciousness across the world religions

Let us compare the creative process of divinity with fractal mathematics, as illustrated schematically in (Slide 25). On the right-hand side, we see the mathematical fractal process reproduced from above (Slide 23). On the left, we have a schematic of the spiritual creative process. The Absolute, infinite Godhead is depicted at the top, which self-effuses into some particular expression of divinity. In Christianity, for example, this is called the *Logos*, or divine Word; “In the beginning was the Word, the Word was with God, and the Word was God.” There is an effusion of the Absolute Godhead or infinite Dharmakaya into a particular ordering principle of divinity, and this in turn gives rise to a particular emanation of divinity, with its corresponding religious tradition. In Christianity the *Logos* manifests as the Christian Trinity. In Hinduism we see a similar Hindu trinity. In Islam, we see Allah plus the 99 names. In Buddhism we see the Samboghakaya. They are different structures, yet all made of Light on the plane of divinity, and they give rise to the different religions—which form a kind of spectrum.

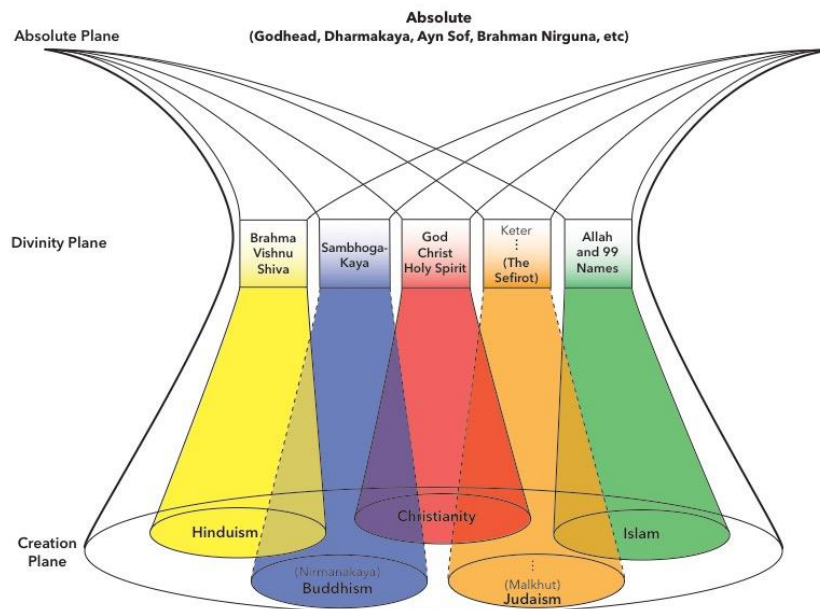
This leads to this schematic diagram of the ontological superstructure of the major world religions. In each case there is a divine utterance or Word of some kind, which creates on the plane of divinity. Each one is like a particular refracted ray of divine light into a particular color and expression of divinity. A version of this principle is found in every mystical tradition, expressed in various forms. For example, in Buddhism and Hinduism, it appears as the concept of Indra’s Net, which is described in the Buddhist Avatamsaka Sutra as follows:

Far away in the heavenly abode of the great god Indra, there is a wonderful net which has been hung by some cunning artificer in such a manner that it stretches out infinitely in all directions. In accordance with the extravagant tastes of deities, the artificer has hung a single glittering jewel in each “eye” of the net, and since the

net itself is infinite in dimension, the jewels are infinite in number. There hang the jewels, glittering like stars in the first magnitude, a wonderful sight to behold. If we now arbitrarily select one of these jewels for inspection and look closely at it, we will discover that in its polished surface there are reflected all the other jewels in the net, infinite in number. Not only that, but each of the jewels reflected in this one jewel is *also* reflecting all the other jewels, so that there is an infinite reflecting process occurring.ⁱ

Indra's Net offers an exquisite image of infinities within infinities of profound interconnectedness, characterized by self-similarity on multiple scales. This fractal structure of Divinity is exquisitely articulated by Plotinus in the third century A.D.:

There everything is transparent, nothing dark, nothing resistant; every being is lucid to every other, in breadth and depth; light runs through light. And each of them contains all within itself, and at the same time sees all in every other, so that everywhere there is all, and all is all, and each is all, and infinite is the glory. Each of them is great; the small is great: stars and sun. While some manner of being is dominant in each, all are mirrored in every other.ⁱⁱ



Slide 26

ⁱ Quoted in Francis H. Cook, *Hua-Yen Buddhism: The Jewel Net of Indra* (University Park, PA: Penn State Press, 1977).

ⁱⁱ Raimon Panikkar, *Christophany* (New York: Orbis, 2009).

The Holographic principle

In recent years, Bohm's holomovement is receiving a new level of validation in several ways. Not only have physicists have continued to develop what is now called Bohmian Mechanics, but in the longstanding attempt to reconcile quantum physics with relativity theory, several new theoretical developments have emerged. The most important of these for our purposes is the "holographic principle," which states that our three-plus-one dimensional universe (space + time) is *itself* a holographic projection from a two-dimensional hyperspace, or "nonlocal pre-space", which lies beyond our universe. This can be simplistically visualized as a 3-d spherical shape evolves over in time, plus a 2-d plane some distance away (or perhaps a series of 2-d planes). The sphere represents the entire universe, and the plane represents the non-local 2-d "holographic plate" that produces, via high frequency energy interactions, the sphere as its holographic projection. In mathematics, the 2-d space is called a brane (from membrane), not to be confused with 'brain' of course, but there are symbolic parallels, because the brane contains all the requisite information that creates the entire universe, which is its "brane-child" hologram. The energy interactions between brane and universe occur at such a high frequency that they cannot be detected by today's scientific instrumentation. The universe does not exist independently, but rather is created and sustained in its entirety from moment to moment. If the energy interacting with the brane were to cease for any reason, the entire universe would vanish instantly.

This view has come comes through the physics of black holes, and the recognition that all the informational content of all the objects that have fallen into a black hole are entirely recorded or preserved in surface fluctuations of the [event horizon](#). In short, every aspect of the 3-d interior of the black hole is fully described by the information on its 2-d surface. This has provided a mathematical breakthrough that directly links quantum gravity theories (formulated in terms of string theory or M theory) with conformal field theories that describe elementary particles, thereby providing the long-sought link between general relativity theory and quantum mechanics.

According to physicist Leonard Susskind, one of the leading pioneers in this field, "This whole holographic story is the most radical thing that has happened to our understanding of space, time, and matter, since the invention of QM and relativity. It is something very, very different. Where it's going, what does it explain, how do we explain it? We don't know. We are on the cusp of a major paradigm shift about how the world works."

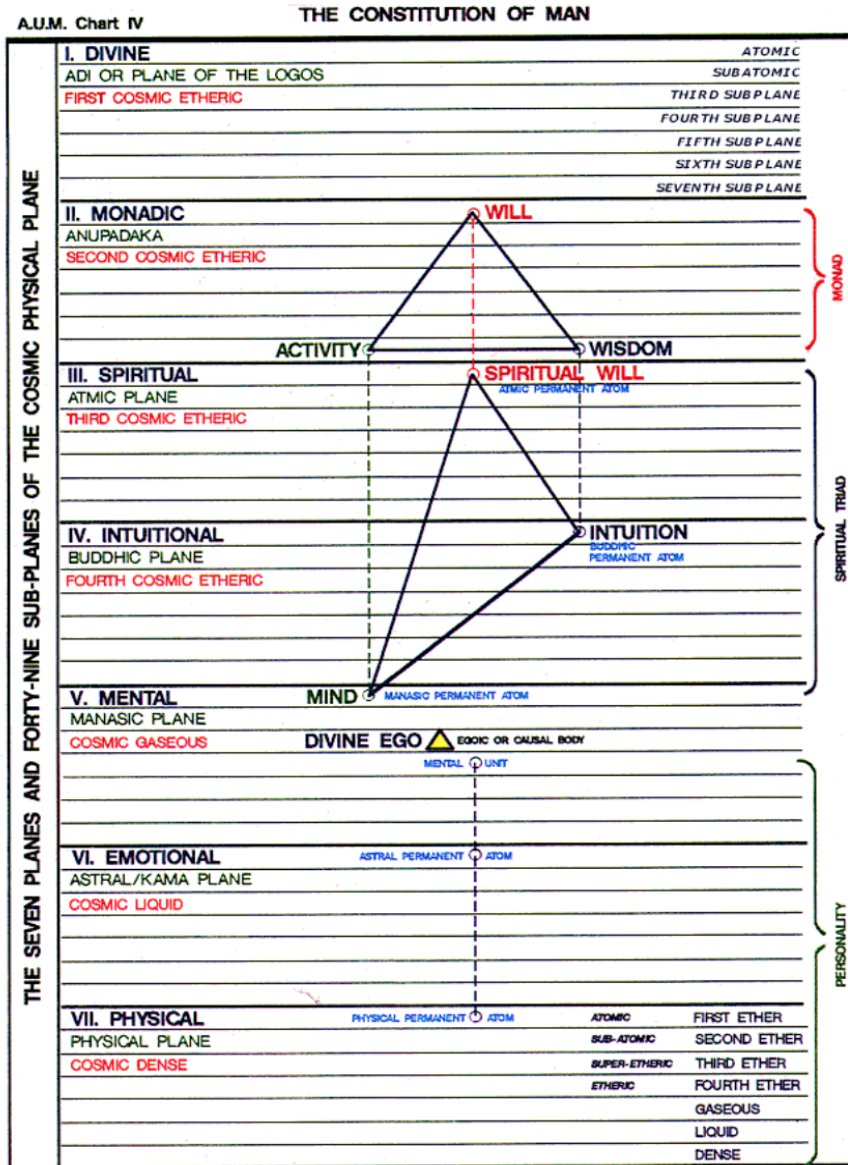
Spiritual implications and higher realities

Although physicists are loathe to give this a spiritual interpretation, this view of the cosmos resembles almost uncannily the descriptions of creation from leading spiritual masters, which is that the templates of “heaven” create the world. A few examples (among many others) will illustrate:

“These heavenly realms, vibratory and transcendent, are only figuratively “above” the gross vibrations of the earth “below”: they are in fact superimposed one on the other.” — Paramahansa Yogananda

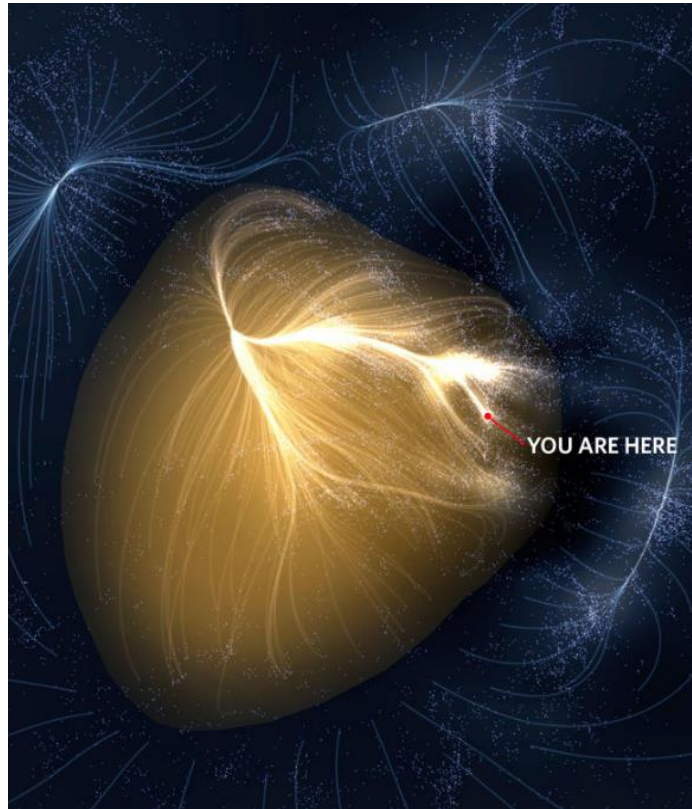
“God is creating the entire universe, fully and totally, in this present now. Everything God created ... God creates *now*, all at once.” — Meister Eckhart

These various planes of reality are described differently in different esoteric systems, and today’s science may still be only scratching the surface. For example, the esoteric structure of reality is said to have at least seven multiple levels. Below is one example according to the theosophical tradition (**Slide 27**). This figure comes from the work of Djwal Khul, as articulated in the writings of Alice Bailey. It shows seven levels of reality, each of which has seven sublevels, so there are 49 levels of reality altogether. The physical domain is at the bottom, depicted by the lowest three sublevels at the bottom; solids, liquids, and gases. These are the physical states of matter. In science today, the attempt is to explain the whole of reality by reference only to these very lowest levels. The bottom three or four sublevels are where most of science is focused, struggling to explain all of reality. The higher levels are revealed through meditation and other forms of spiritual practice, and are found more or less consistently across diverse spiritual traditions. In meditation, these different dimensions of human consciousness are revealed, which include intuition, will, and all of the subtle dimensions and revelatory experiences that take place in spiritual life. The orthodox scientist and the strictly materialist view effectively reduce the human being to a mere “biological robot,” stuck on the ground floor of this multi-dimensional cosmos.



Slide 27

Coming back to ecology, part of the price we pay for all this is the loss of our direct spiritual connection with our planetary home, with Gaia herself. Our understanding of ecology has been limited to merely physical aspects, and our 'modern' civilizations are profoundly impoverished as a result. It is time for science to embrace these higher dimensions of reality, and thereby help humanity to reclaim our covenant with the soul of our planetary home.



Slide 28

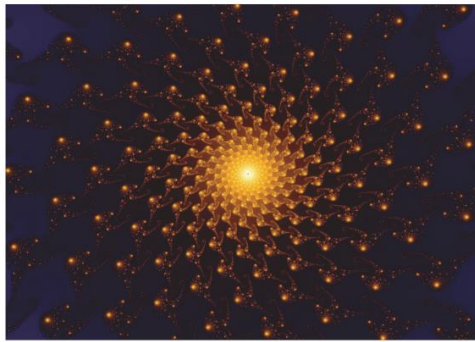
Let me close with this image (**Slide 28**), which was published on the front cover of *Nature*, September, 2014. This is called the Laniakea Supercluster. It is an image of composite data from telescopes across the planet, plus the Hubble telescope, and it shows the trajectories of the nearest 100,000 galaxies. Every point on this image is a galaxy, and each white thread is the trajectory of a particular galaxy through space. The scale here is big, 532 million light years across. Note our position in the Milky Way (“you are here” point). Note that the galaxies are all moving towards an attractor which is glowing in the center, called the “Great Attractor.” Perhaps it is no mere accident that this looks strikingly like a great cosmic heart.

Uniting Natural and Esoteric Sciences: Pathway to the Deepest Secrets Of the Universe

William Keepin, Ph.D

Satyana Institute, USA, Unity Centre of Vancouver, Canada

Uniting Natural and Esoteric Sciences *Pathway to the Deepest Secrets of the Universe*



William Keepin, PhD
ICUS 2020, Seoul Korea



Love alone
can heal the divisions
in the Human Family:



Dawn of InterSpirituality:
Union of Religion and Science



Gender Equity & Reconciliation
International

Hatred never ceases by hatred,
but by Love alone.

This an ancient, universal law.

—Buddha (Dhammapada)

Dalai Lama (1990)

Four steps to discover deepest secrets:

1. Explore the outer (visible) universe.
2. Explore the inner (invisible) cosmos.
3. Explore the *relationship* between them.
4. From these three, you can discover the deepest secrets of the universe.

***Process of spiritual transformation
across the major religions:***

- There is a supreme **Other**—which is far Greater than ourselves
- We **take Refuge** in this great Other (be it: God, Allah, Dharma, Lord, etc)

What is G.O.D.?

Glorious Overflowing Divinity
General Organizational Director
Goddess Outpouring Devotion
Grand Omnipotent Dharmakaya
Getting Over Duality
Get Outta Dodge!
Generalized Operating Dice

Taking refuge in the "Other" is universal:

- Bow down and take *refuge* in God alone
(Bhagavad Gita 18.65-66)
- In the Lord I take *refuge*
(Psalm 11:1)
- We have fled to God for *refuge* ...
(Hebrews 6:18)
- I take *refuge* in the Lord
(Qur'an 114:1)
- Take *refuge* in Buddha, Dharma, Sangha
(Buddhism)

In taking refuge, a mysterious process of transformation begins - and eventually culminates in the profound realization:

- **There is no 'Other'**

We *are* the Other.

The illusion of 'self' is utterly transformed - or rather, annihilated - *by* the Other into oneness with (or *nearness* to) the Other.

Oneness with the 'Other' (God) is universal

- *Aham Brahmasmi* — **"I am Brahman"**
(Upanishads, **Hinduism**)
- **"I and the Father are One"**
(John 10:30, **Christianity**)
- *Anal haqq!*—**"I am the Supreme Reality"**
(Al Hallaj, **Islam**)
- **"Be still, and know that I am God"**
(Psalm 43, **Judaism**)

**Oneness with the 'Other'
in theistic and non-theistic traditions:**

- Whoever sees me has seen the Father.

- John 14:9

- Whoever sees the Dharma sees me;
whoever sees me sees the Dharma

- Buddha (Vakkali Sutta, Samyutta Nikaya 22:87)

This 'Other'
is beyond gender . . .

The 'Other' includes
and transcends
all gender categories.

And God said,

‘Let *us* create humanity in *our*
image, after *our* likeness.’

So God created human beings . . .
in the image of God; male and
female . . . (Genesis 1:26-27)

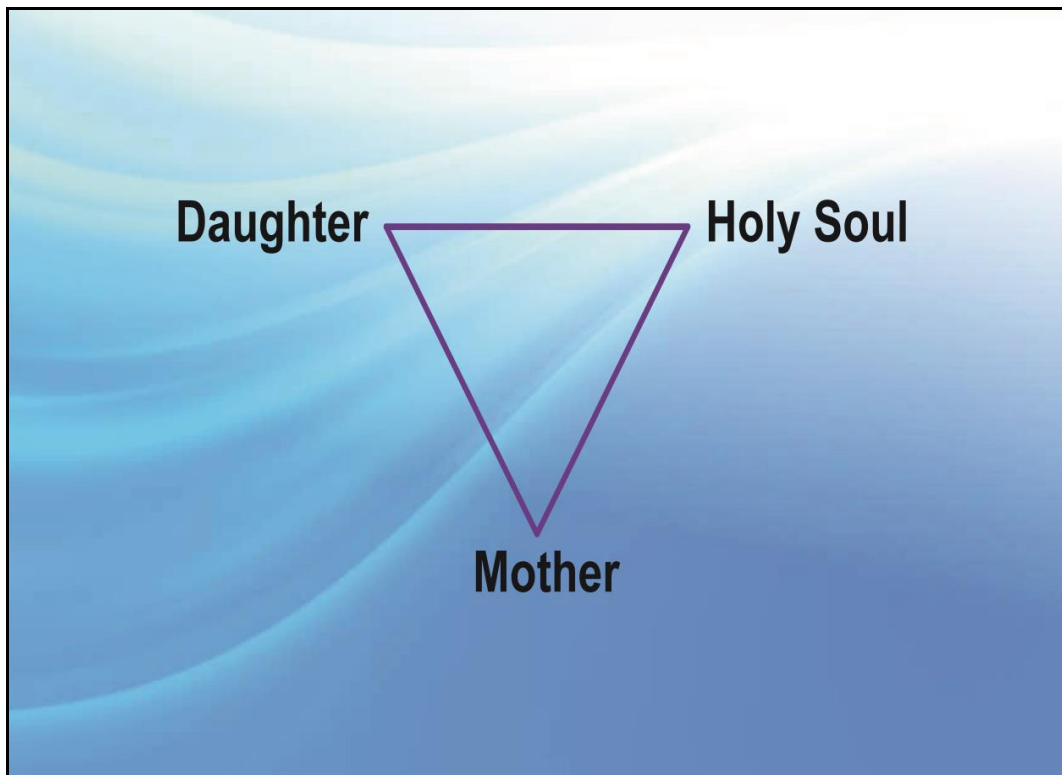
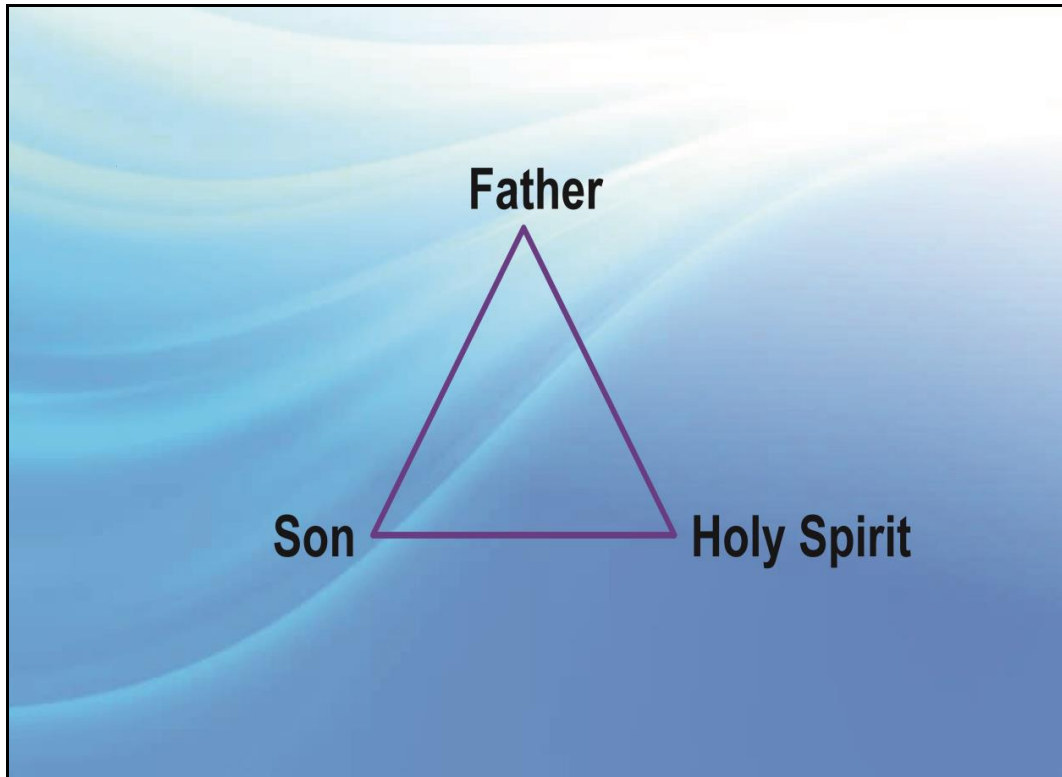
Take due note:

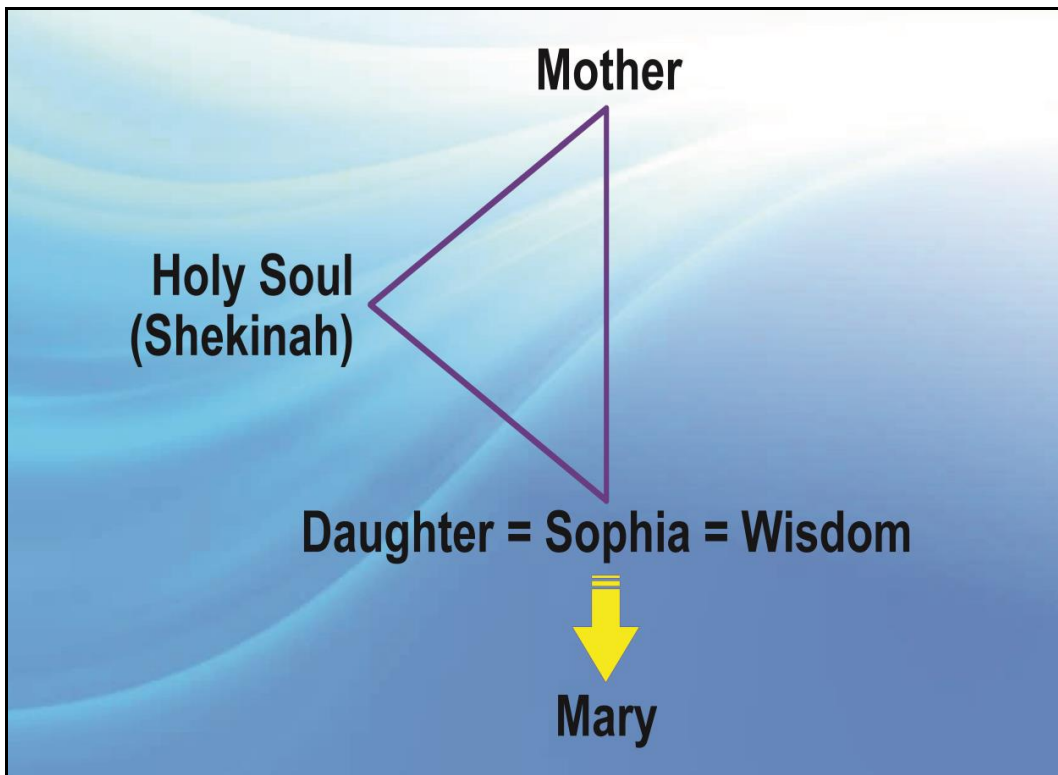
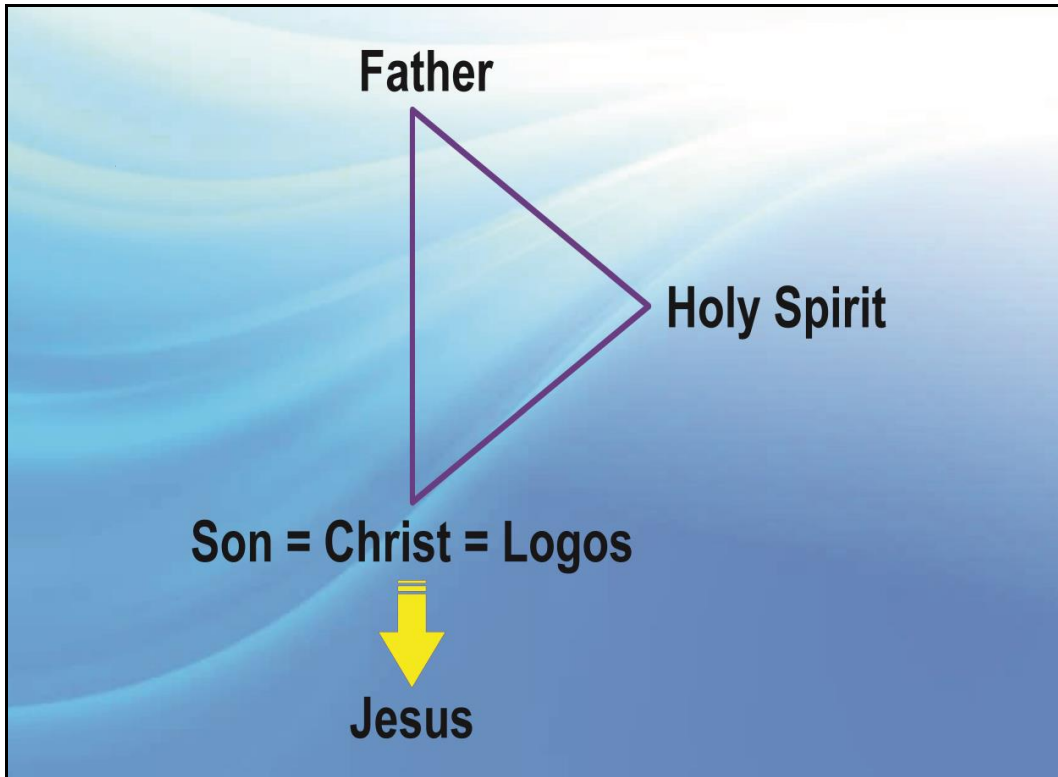
God is half female!

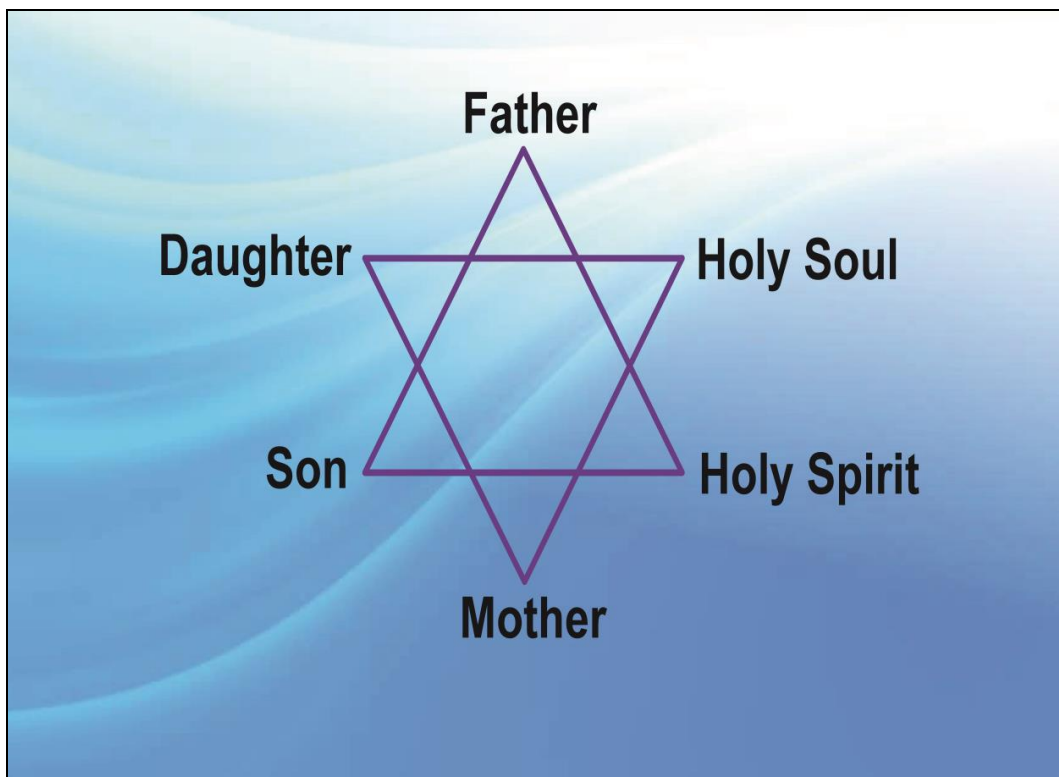
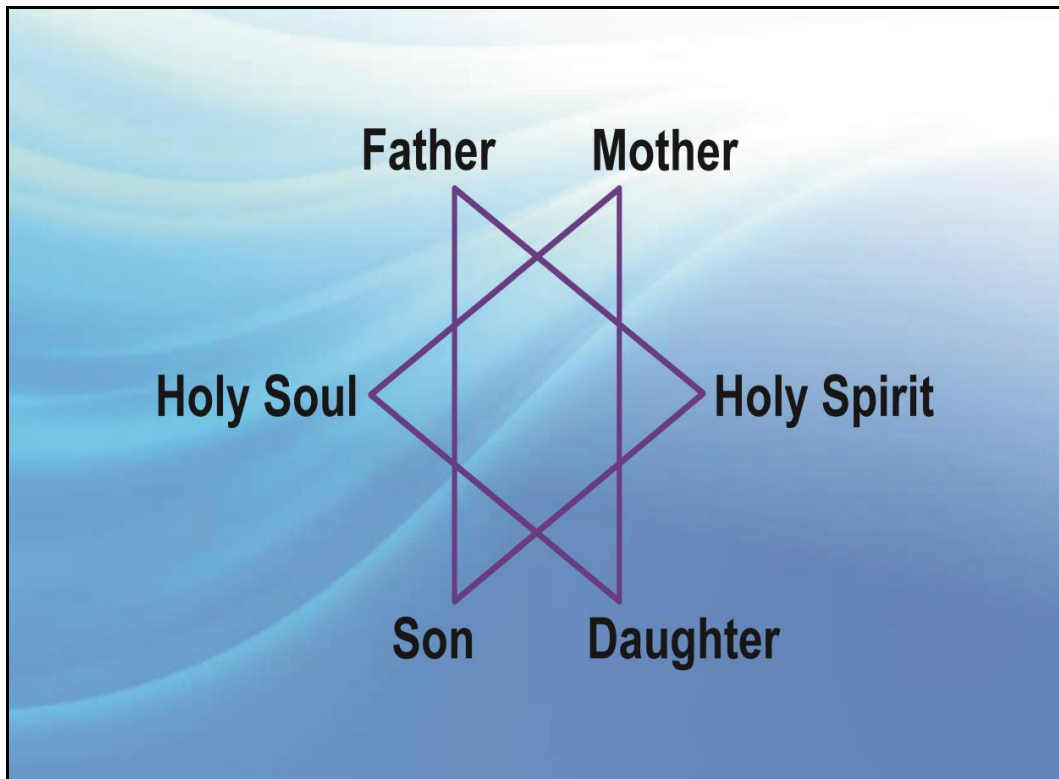
It is far less *egregiously inaccurate* to say:

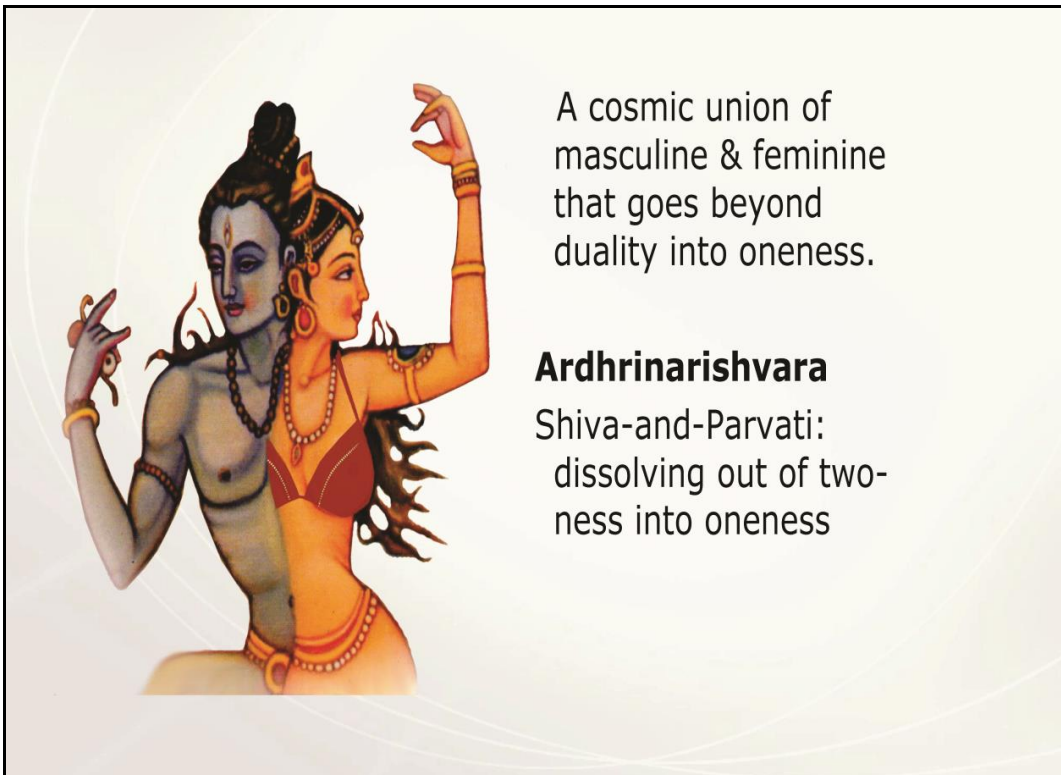
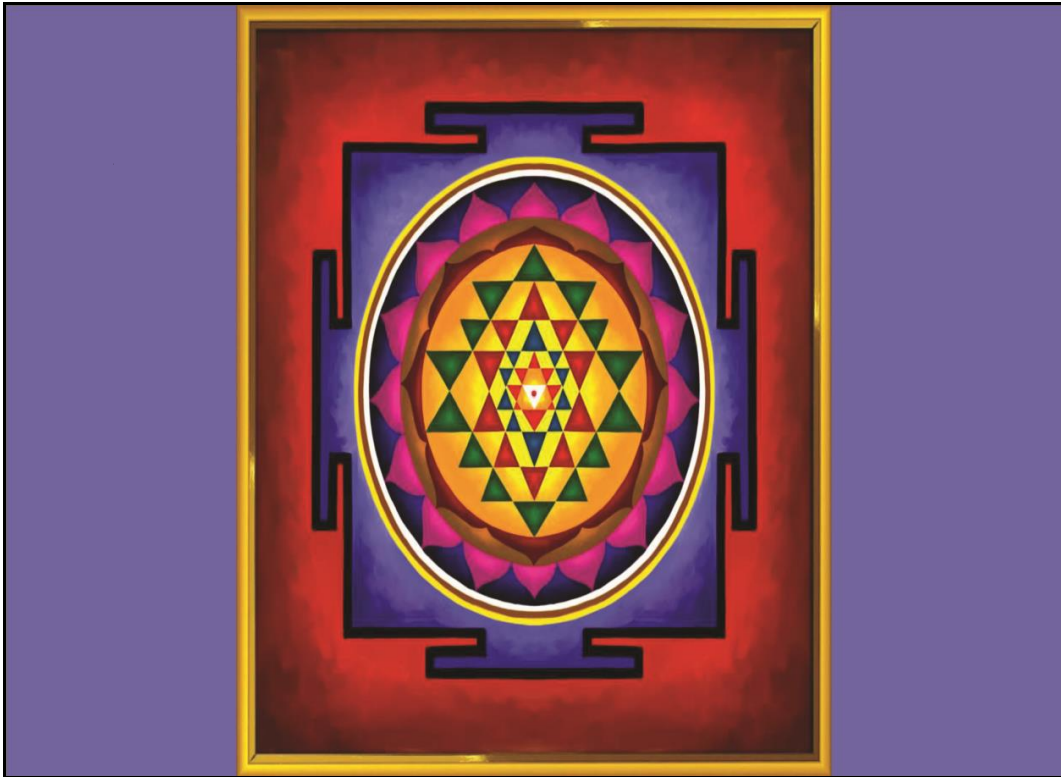
God is half female/half male

Than to say or think: God is male.









A cosmic union of
masculine & feminine
that goes beyond
duality into oneness.

Ardhrinarishvara

Shiva-and-Parvati:
dissolving out of two-
ness into oneness

**None can be free unless they
receive a power which is both
masculine and feminine.**

**That which is above opens itself
to us who are below, so that we,
too, enter the secret of the truth.**

**Through the sacred embrace, we
are invited into the interior.**

— Gospel of Philip

Oneness is not identity

- “The Father is greater than I.”
(Jn 14:28)
- “Why call me good? Only God is good.”
(Mk 10:18)
- Kashani: “ontological tawhid”
Tawhid (becoming one) or *Advaita*:
‘There is no Reality but God.’

⊕ *Examples across the traditions:*

- “The union is so complete that this ‘I’ and that ‘God’ become one *is*, and act as this *isness*.” —Mesiter Eckhart
- John of the Cross
- Rumi, Rabia
- Teresa of Avila
- Hadith qudsi (Al Sarraj)
- Henri LeSaux (Swami Abhishiktananda)
- “God pours *all* of his beauty, *all* his infinity, into the heart—holding nothing back.” —Meister Eckhart

*How are we to
understand these universals?*

How can the *finite* human being

be one with the *Infinite*?

*New theme emerging in many
disciplines of science:*

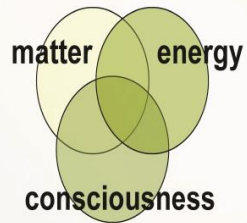
*“Something transpires behind that
which appears.”*

Holomovement

“The cosmos is a single, unbroken
wholeness in flowing movement,” in
which each part of the flow contains
the entire flow. (physicist David Bohm)

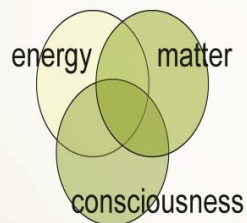
(scientific articulation of *oneness*)

Three foundations of reality



- Beyond $E=mc^2$
- Reality consists of matter, energy, **AND**
- **meaning, or consciousness**

Consciousness is fundamental

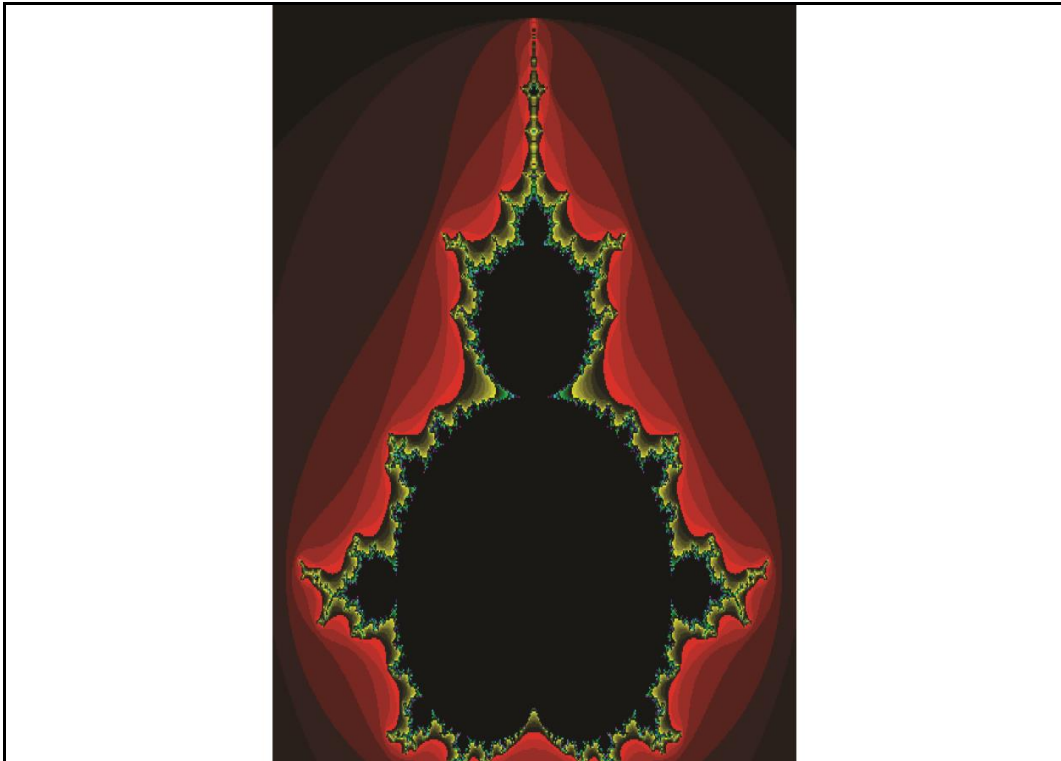


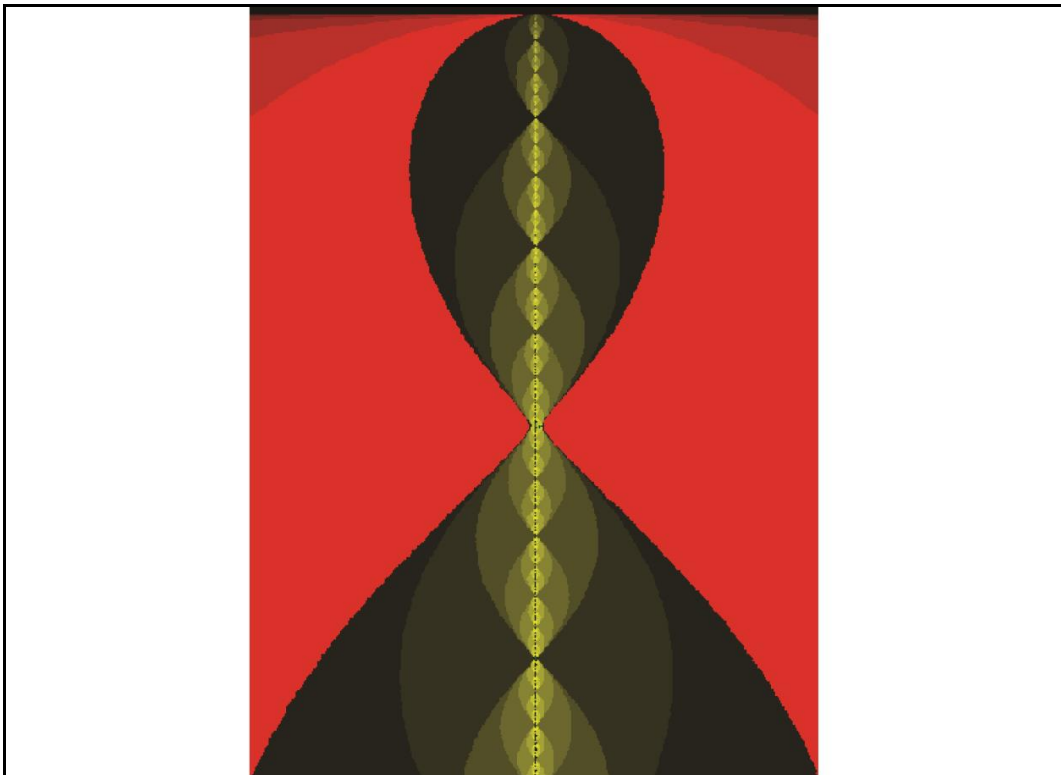
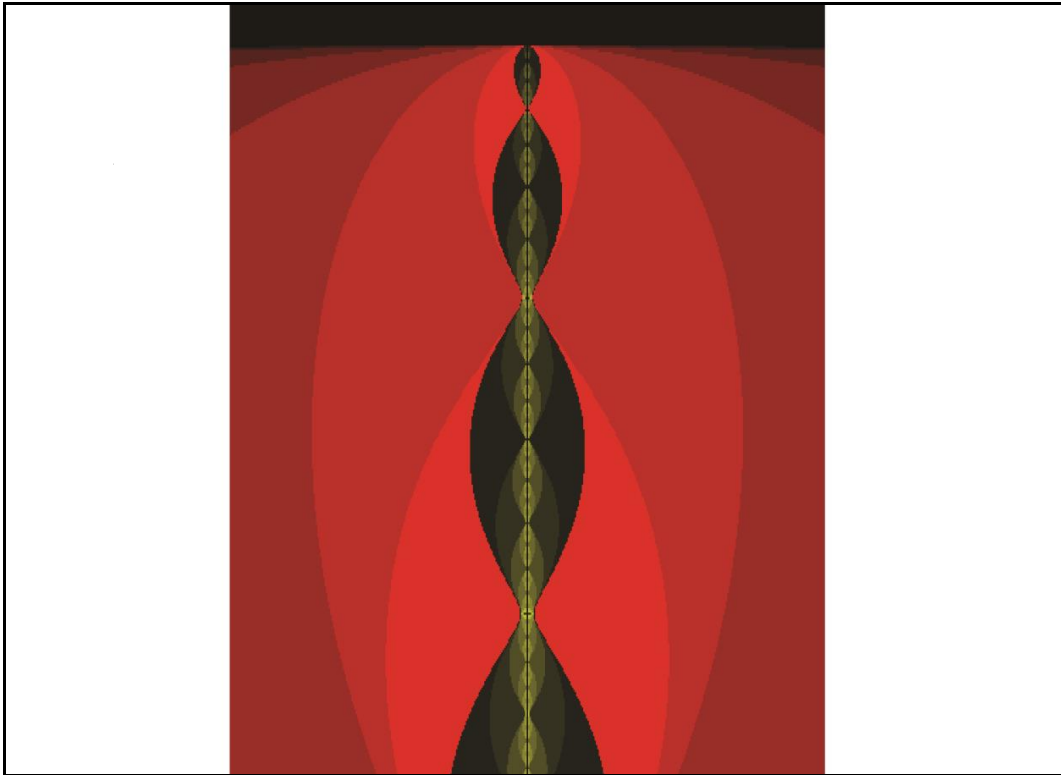
- ⊕ Consciousness or meaning is an inherent part of reality-and not just an abstract or ethereal quality in the mind

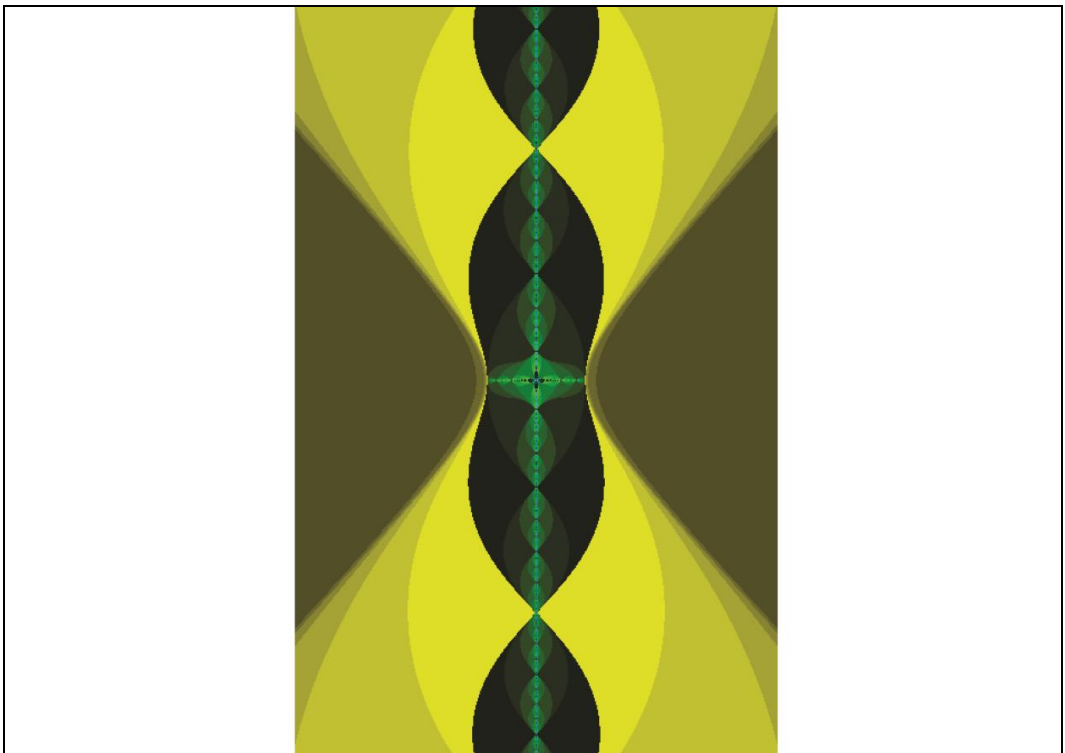
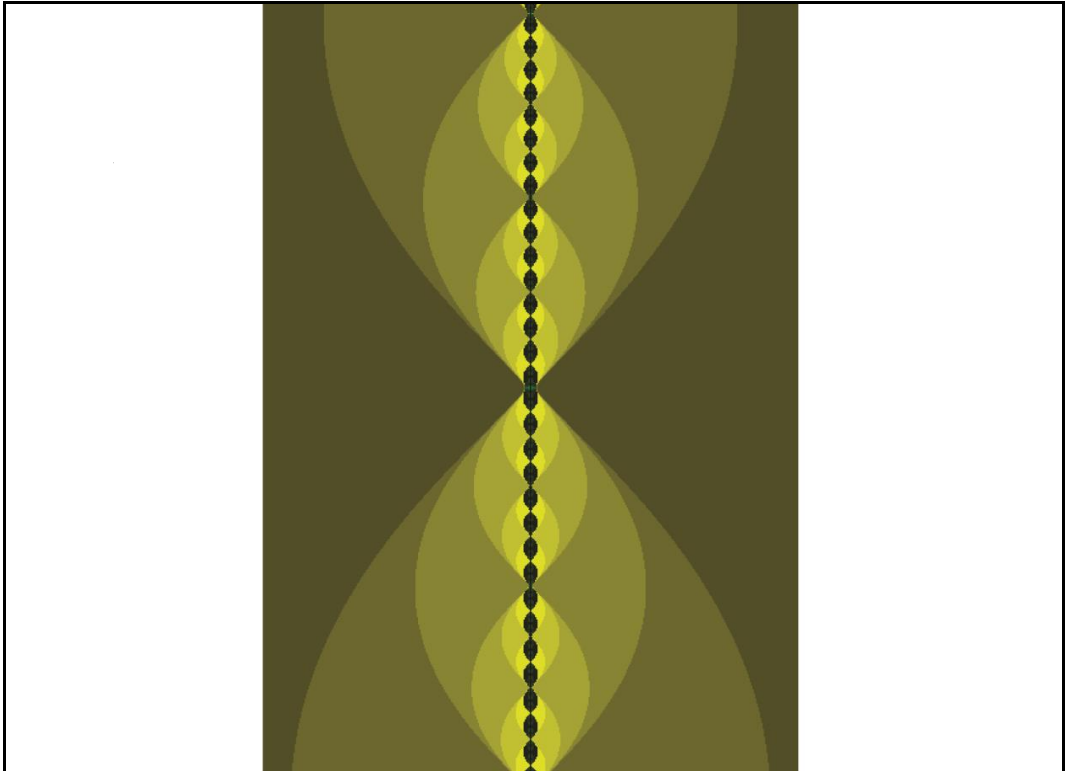
Key insight from modern physics

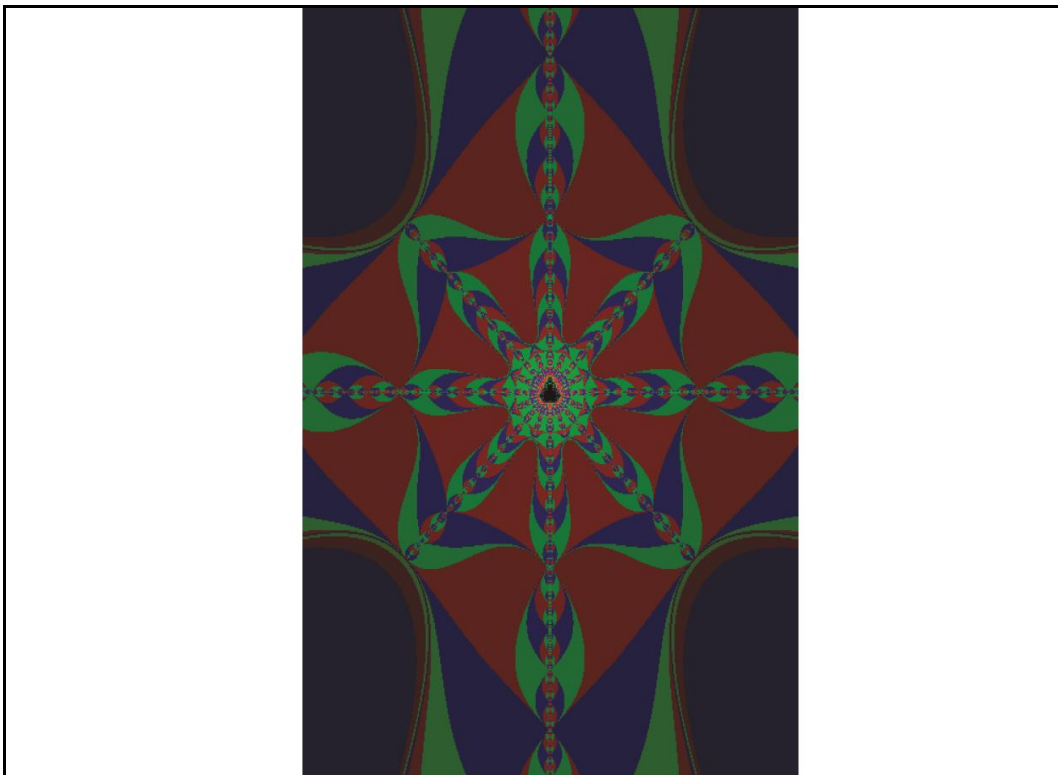
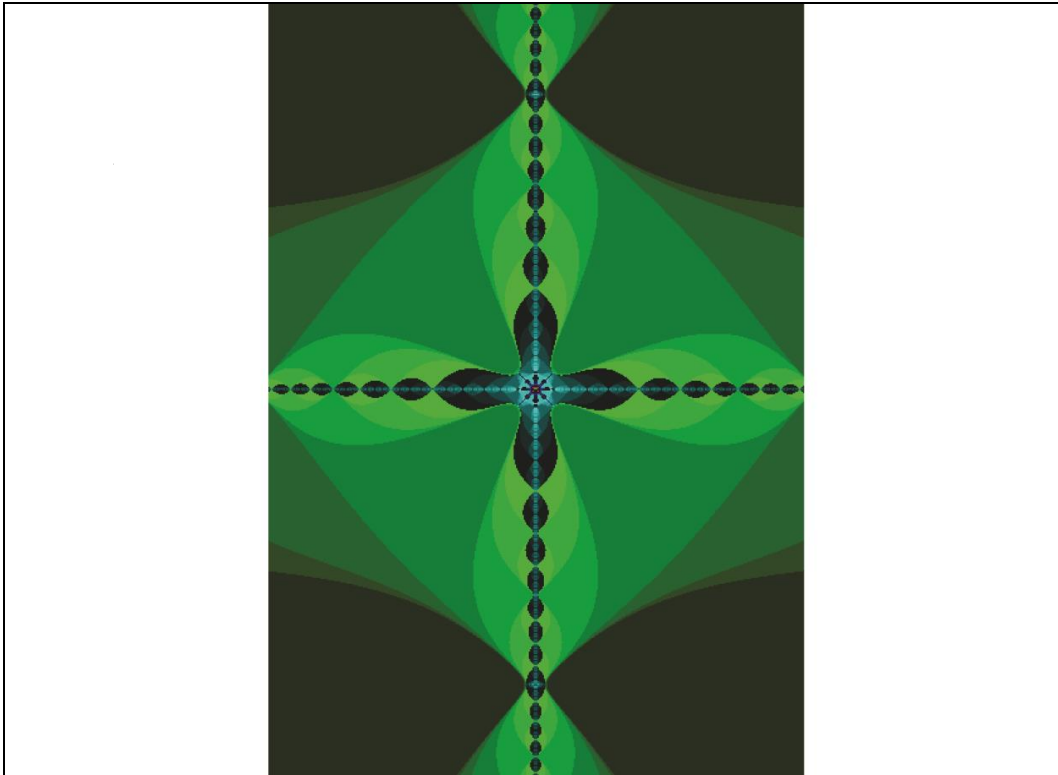
- Reality has a fractal (or holographic) structure
- The simplest example is the Mandelbrot set:

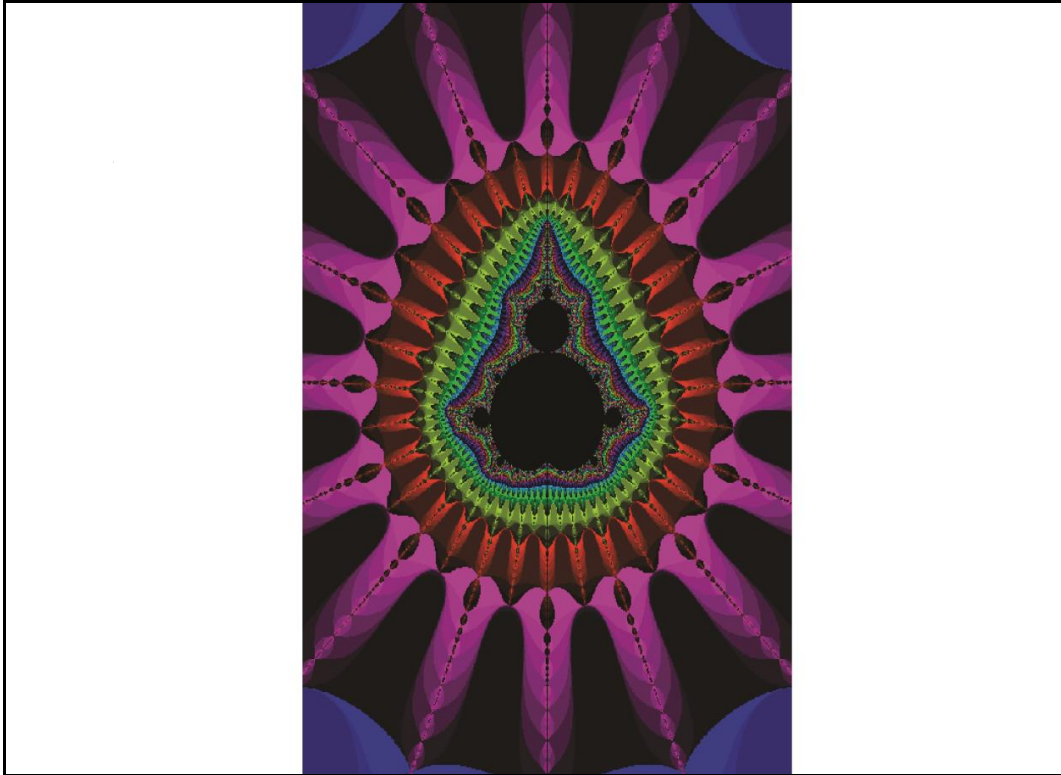
$$Z_{n+1} = Z_n^2 + Z_0$$





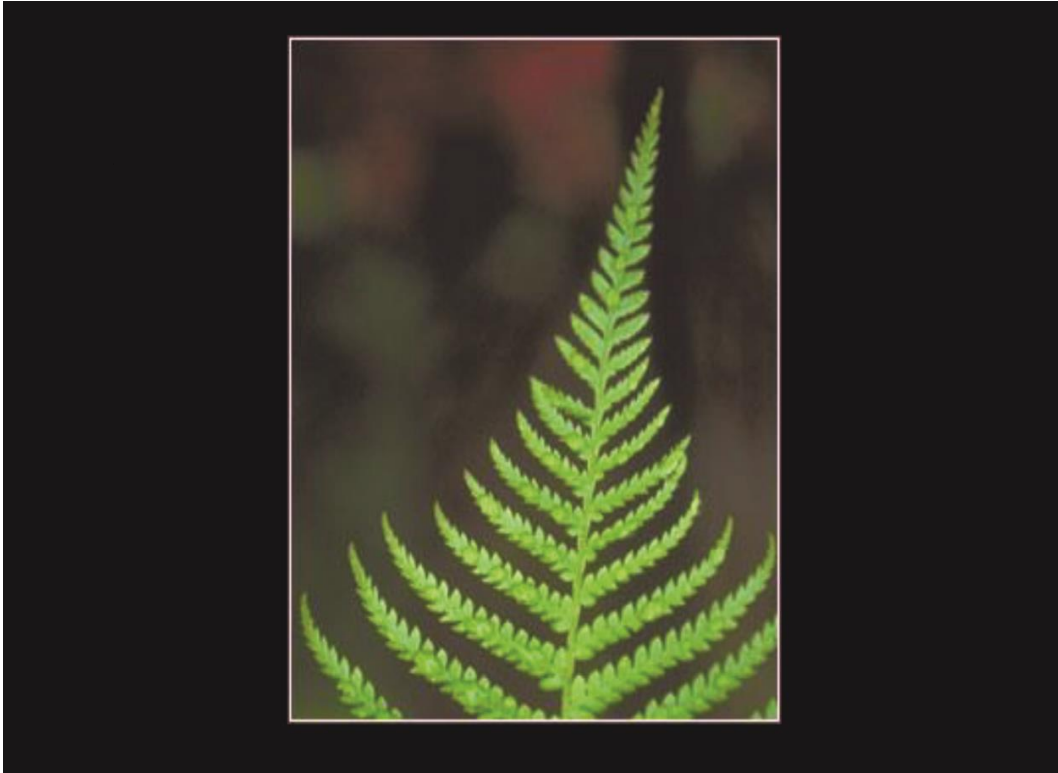




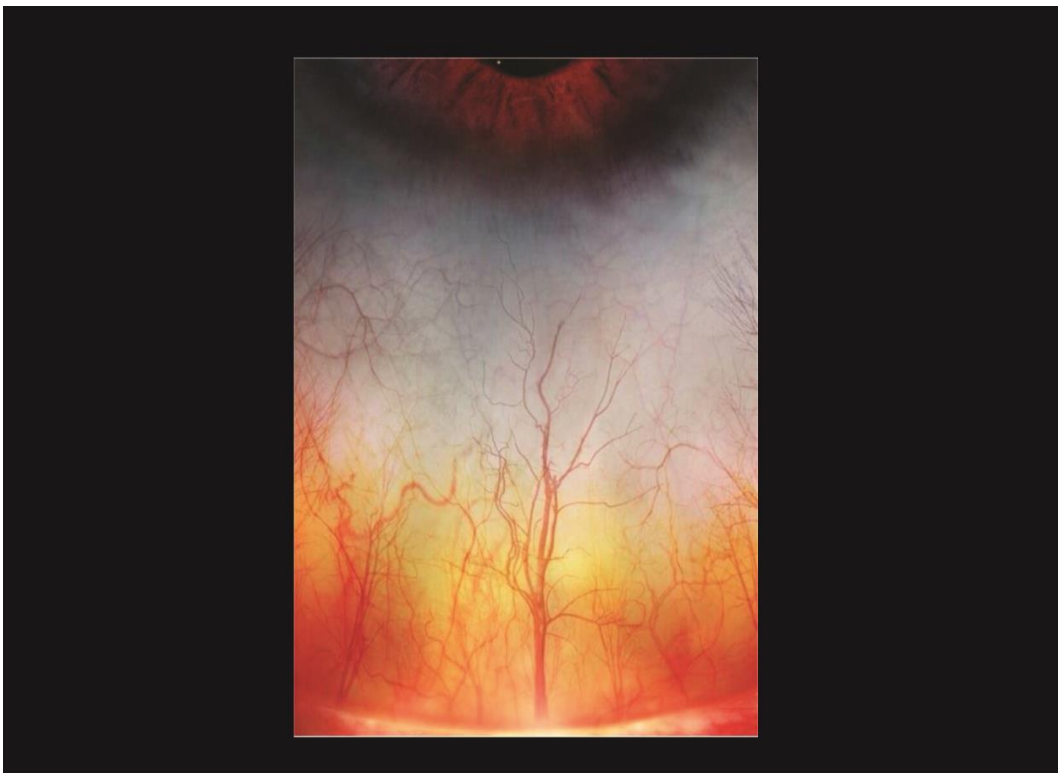


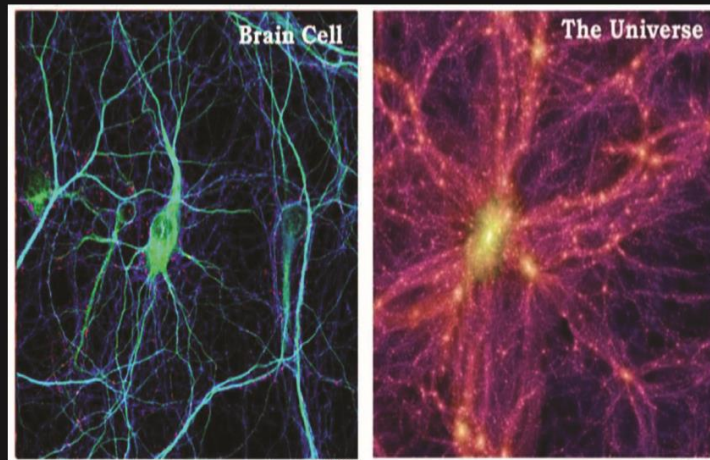
Fractals are a modern scientific
discovery of the ancient
"Principle of Correspondence"

- "As above, so below."
- "As within, so without."
- the microcosm replicates
the macrocosm









*Consciousness itself has
a fractal structure*

*Do not think the drop alone
becomes the ocean.*

*The ocean too
becomes the drop.*

—Rumi

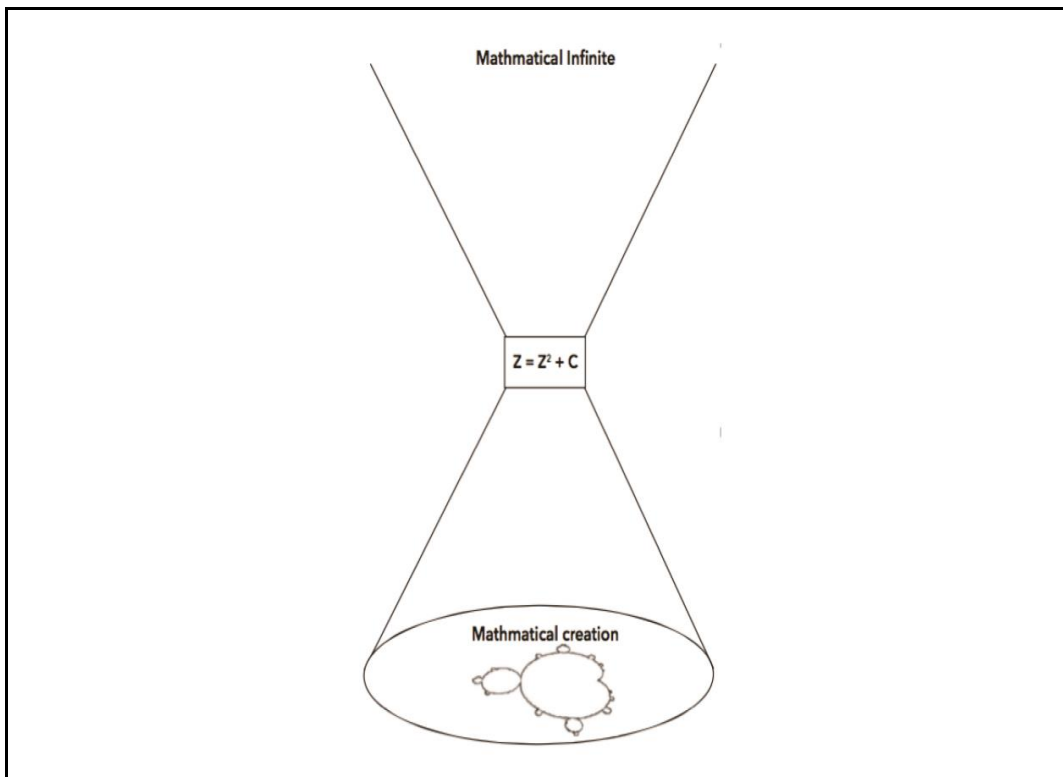
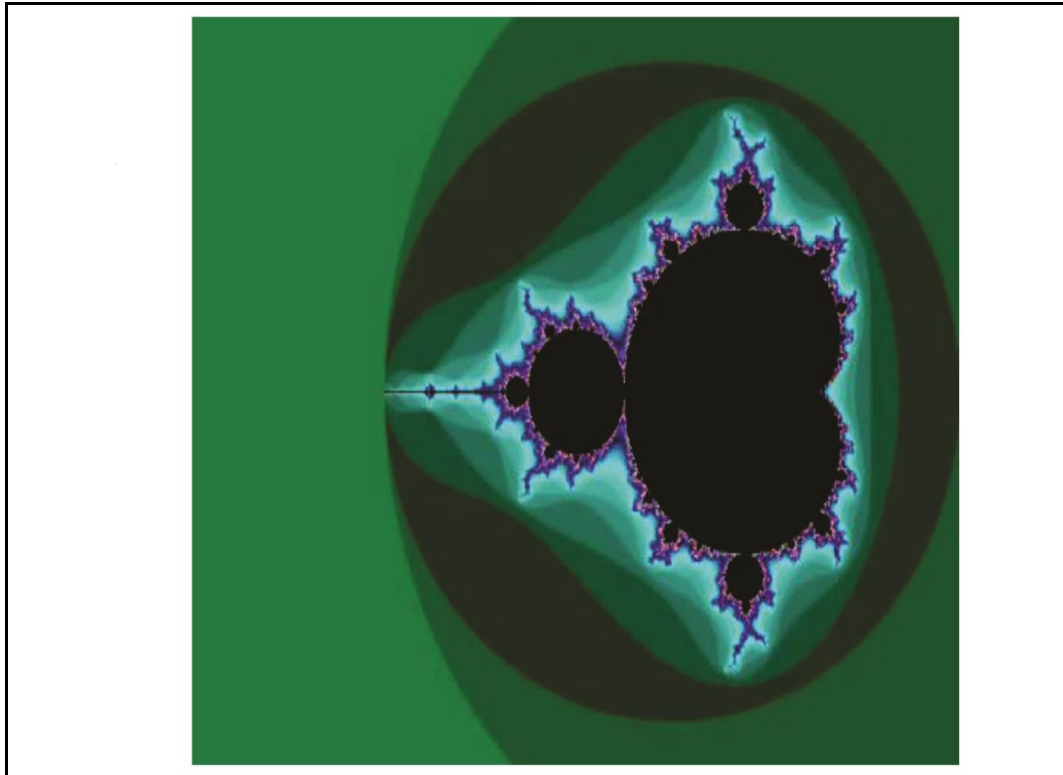
Mystics 'become' God

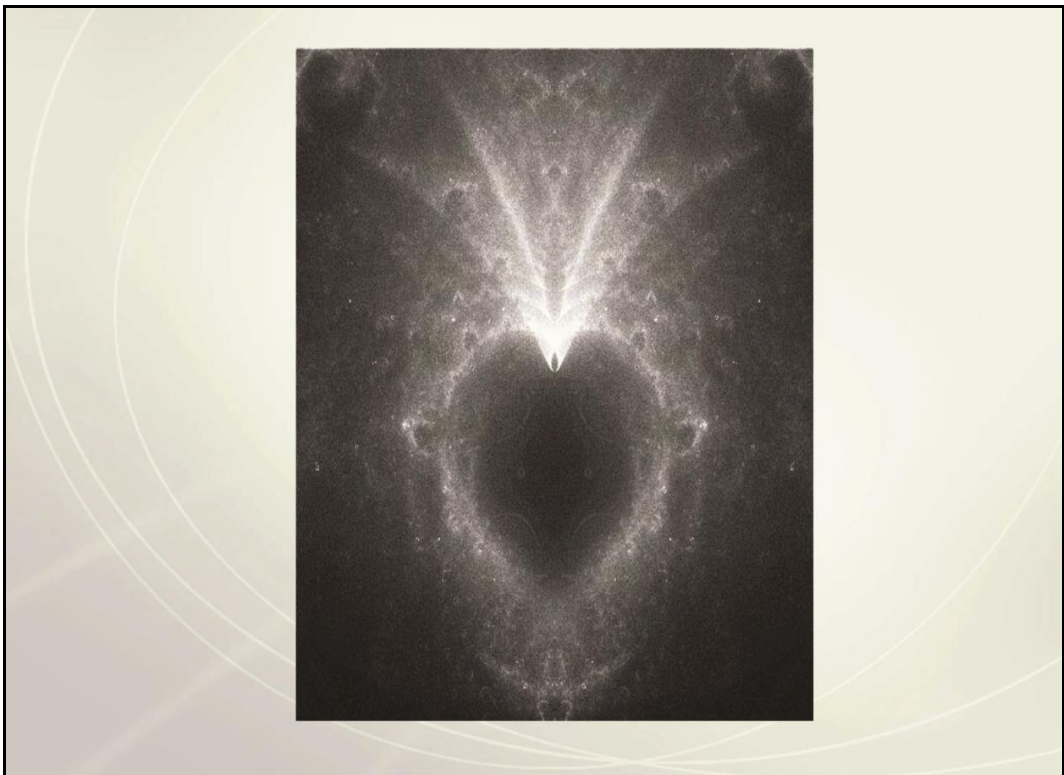
- "God pours *all* of Himself into the heart—holding nothing back."
—Meister Eckhart
- "We are all in God enclosed, and God is enclosed in us." —Juliana of Norwich
- "God wants you to love your way into becoming God" —T. Keating

"The inmost essence of the human being is none other than the transcendent essence of God."

— Reza Shah Kazemi

The *infinity of Divinity*
is contained within the
(seemingly) *finite* human being.

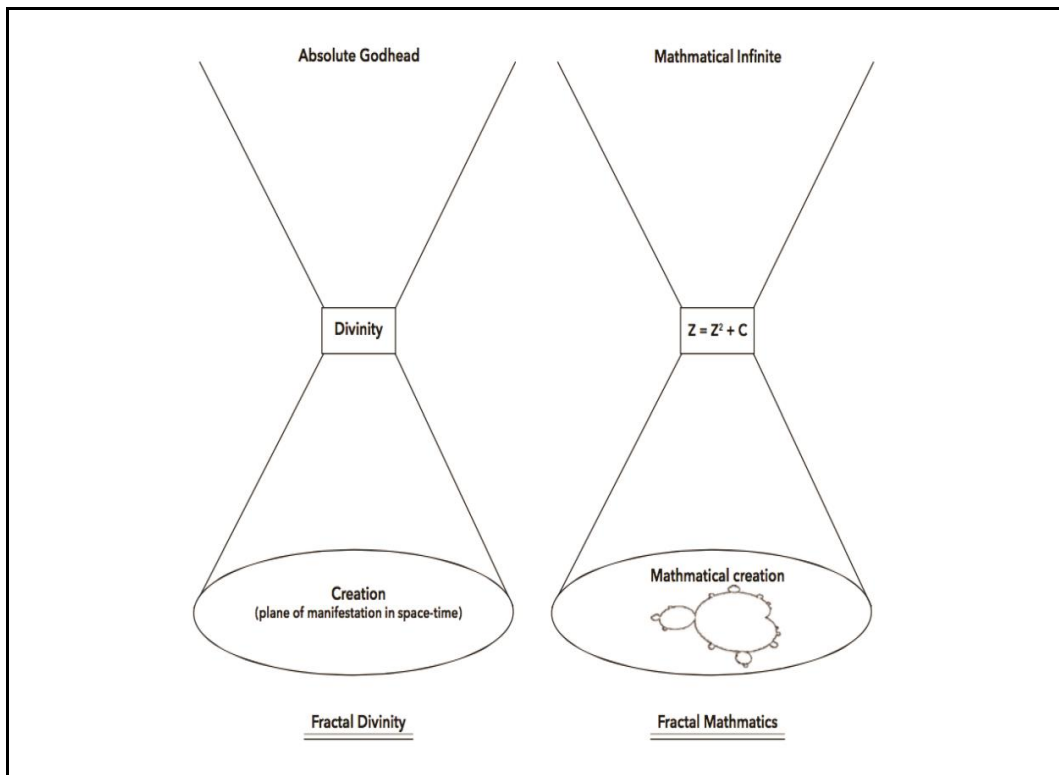


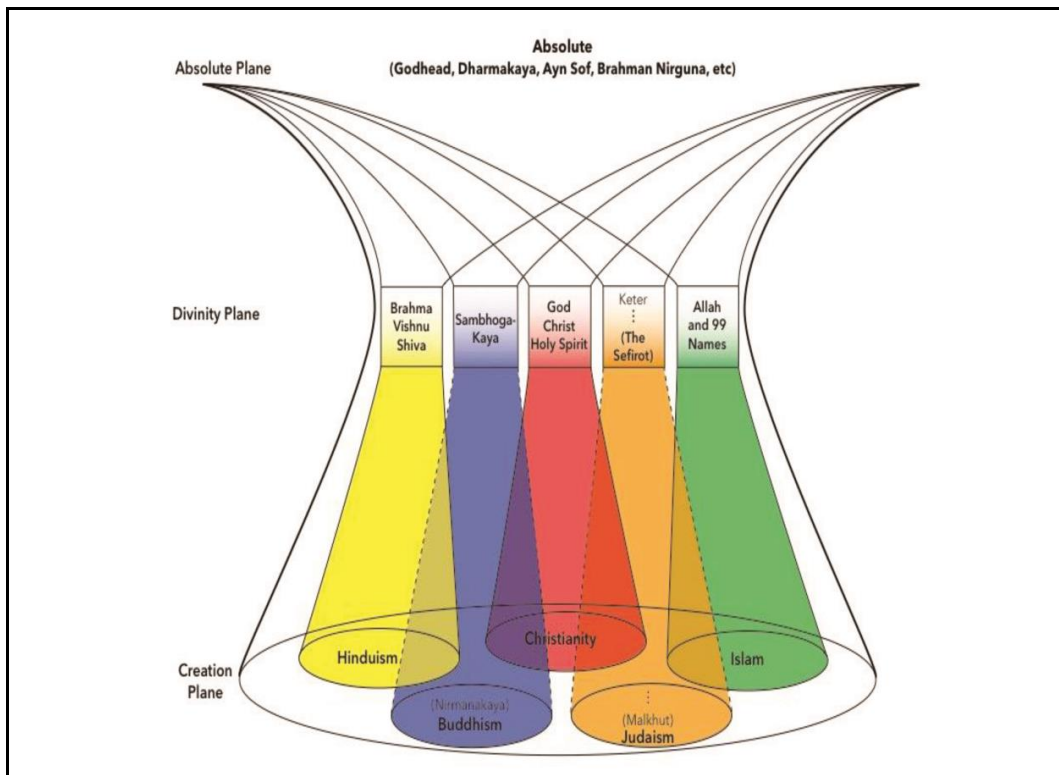
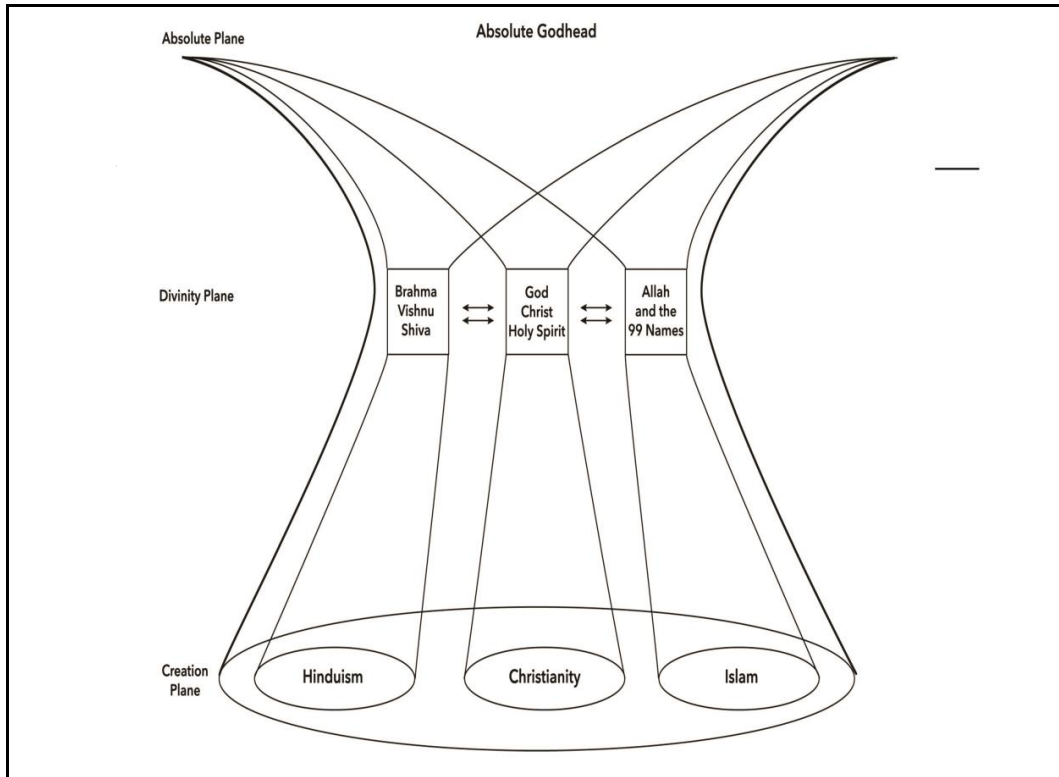


*In analogous manner to the
mathematical fractal:*

*divinity also has a fractal
structure of consciousness*

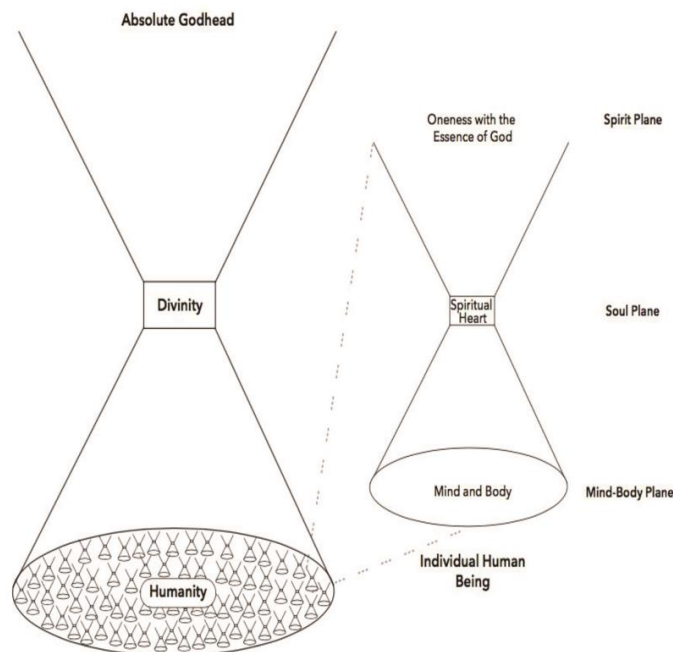
- Ontological schematic diagrams:

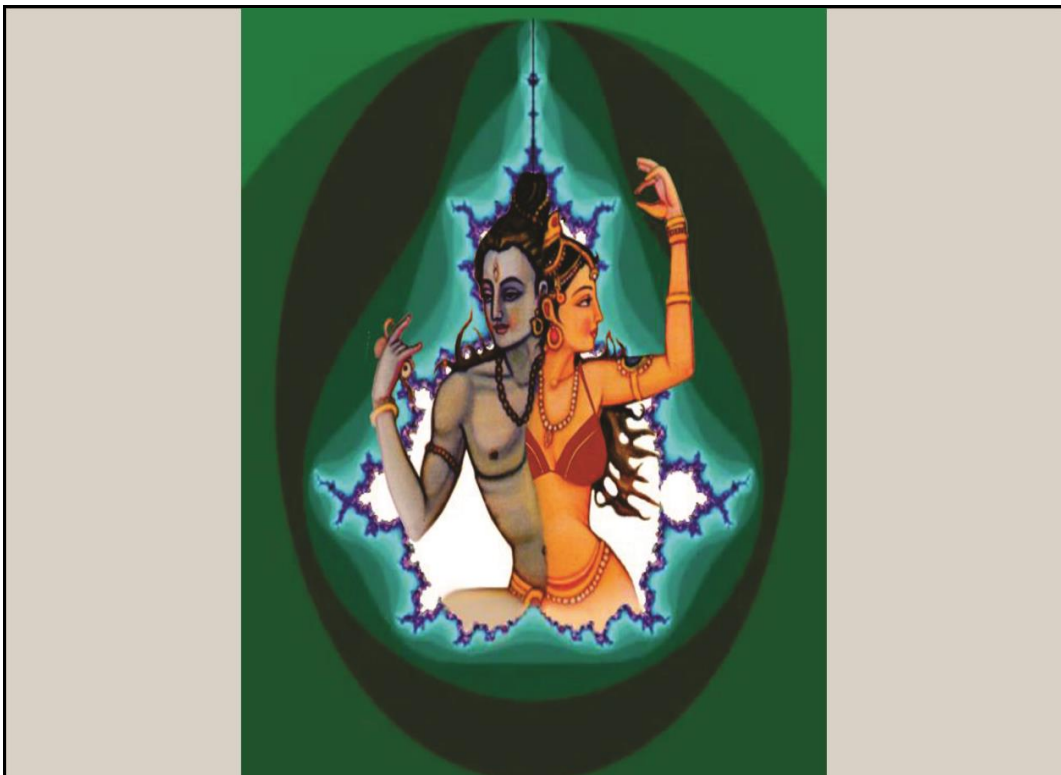


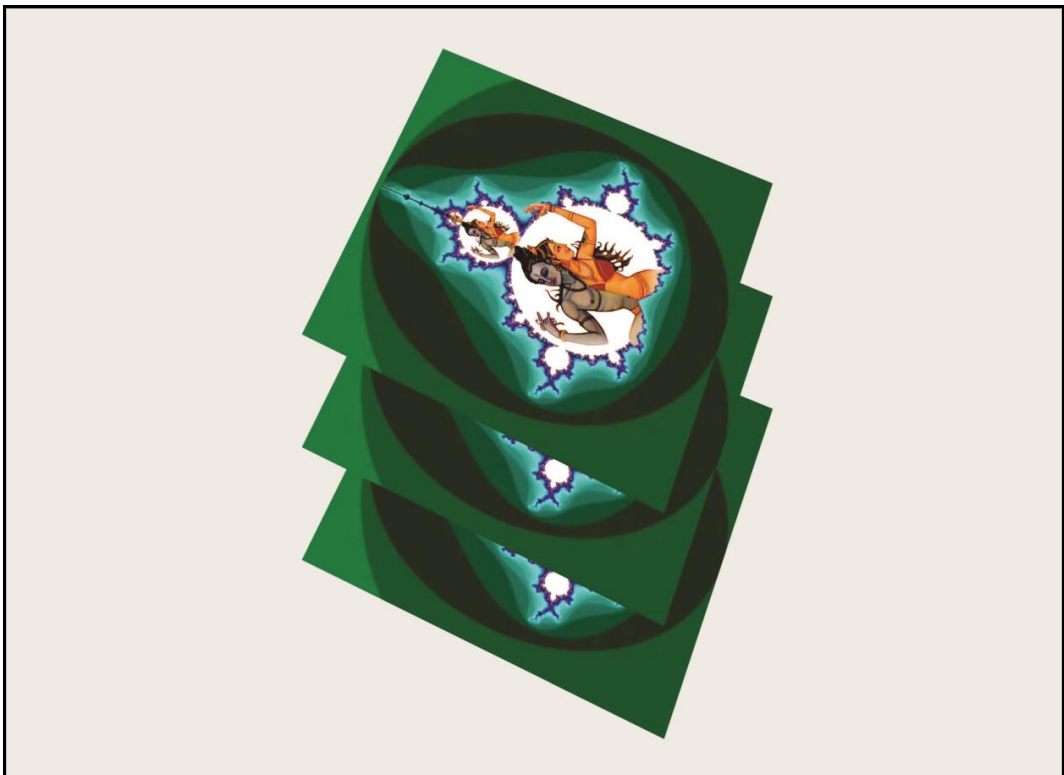


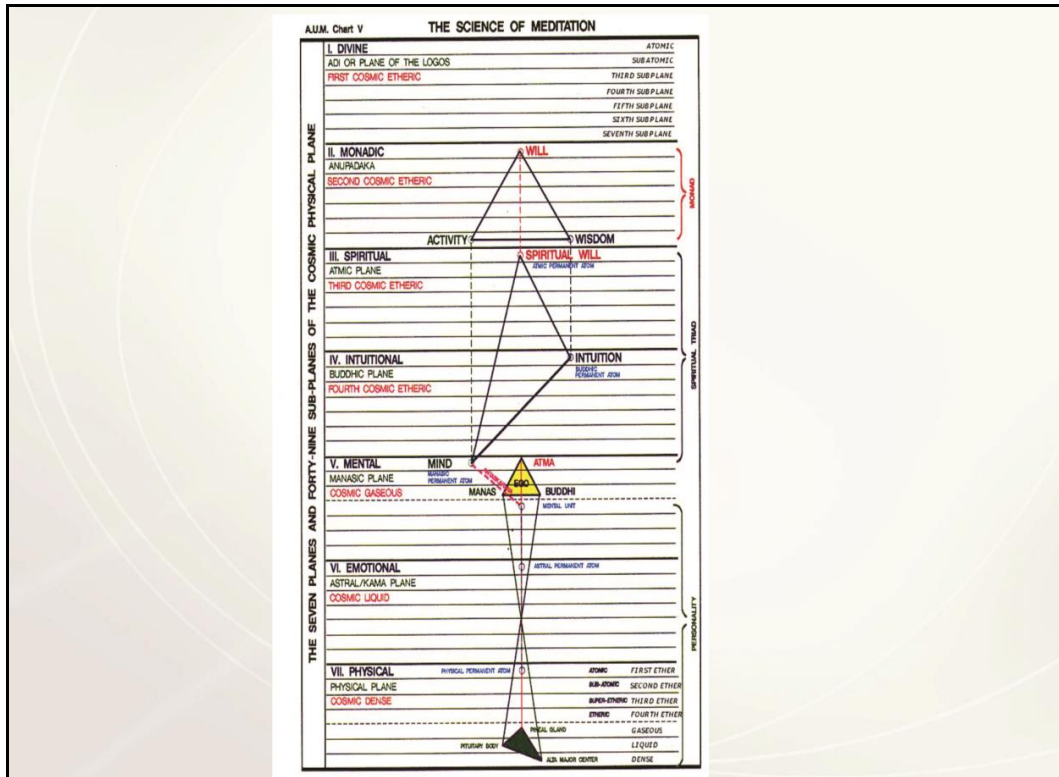
Made in the Image and Likeness of God

- “God” is *eternal AND dymanic*
- Genesis 1:26-27: *Inherently Androgynous:*
Male *and* Female
- *Identity* of human soul with Divine Essence:
both are *one* living dynamic fractal process
- *Process* identity, not a form identity
(see ontological schematic)









Einstein's Special Relativity

Derived from two postulates:

- Speed of *light is universal* in all frames of reference.
- Laws of physics must be the *same* in all frames of reference.

Extend these to spirituality:

- *Divine Light is universal*
across all religious frames of
reference.
- *Laws of spirituality*
should be the same in all religious
frames of reference.

Divine Light is universal

- *Ayat al Nur, light upon light* Quran 24:35
- *In Thy Light, we see light* Psalm 36:9
- *I am the Light of the world* John 8:12
- *You are the Light of the world* Mt 5:14
- *Jyotisam, the Illuminator of all light* Gita 13:18
- *Buddha emanates a great Light...*
pervading the whole cosmos. Flower Ornament Scrip.

Essence or Energy of Godhead E

Essence or Energy of Godhead E

And darkness covered the face of the deep
Gen 1:2

**The darkness breathes over the
lumbering water** Stanzas of Dzyan 3.2

**There was darkness in the deep, and
water without form** Hermetic Corpus

**From That arose the primal darkness, from
That arose the waters of the oceans.**
Rig Veda X.190.1

And God said:

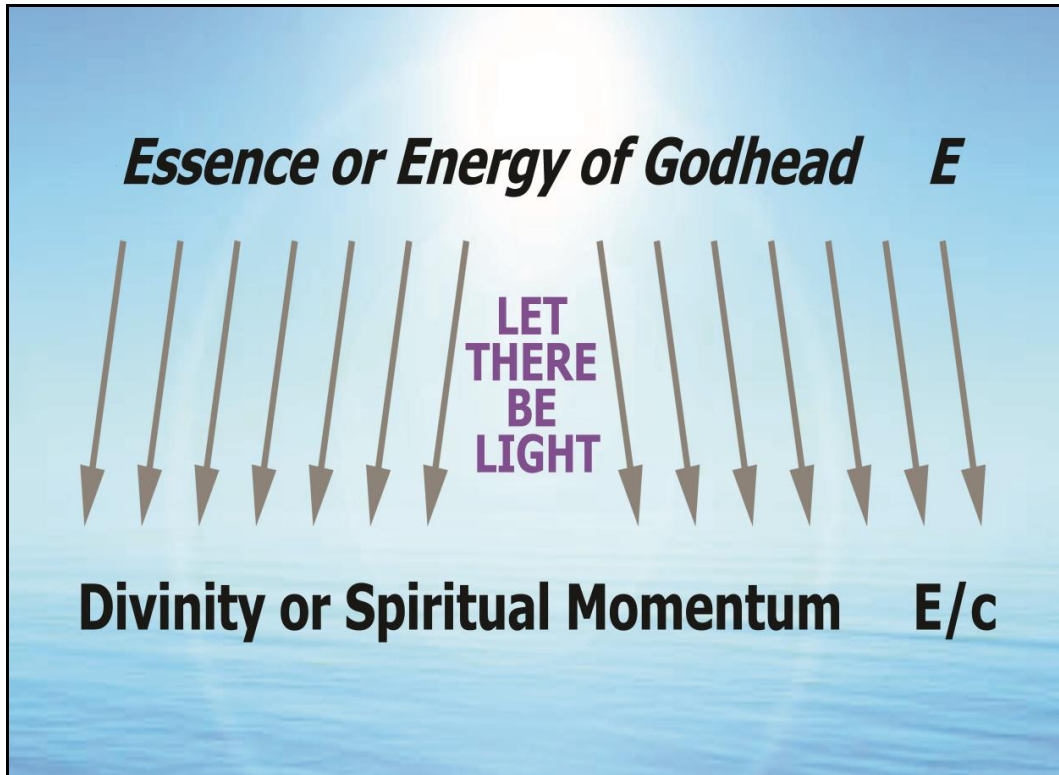
"Let there be Light" . . .

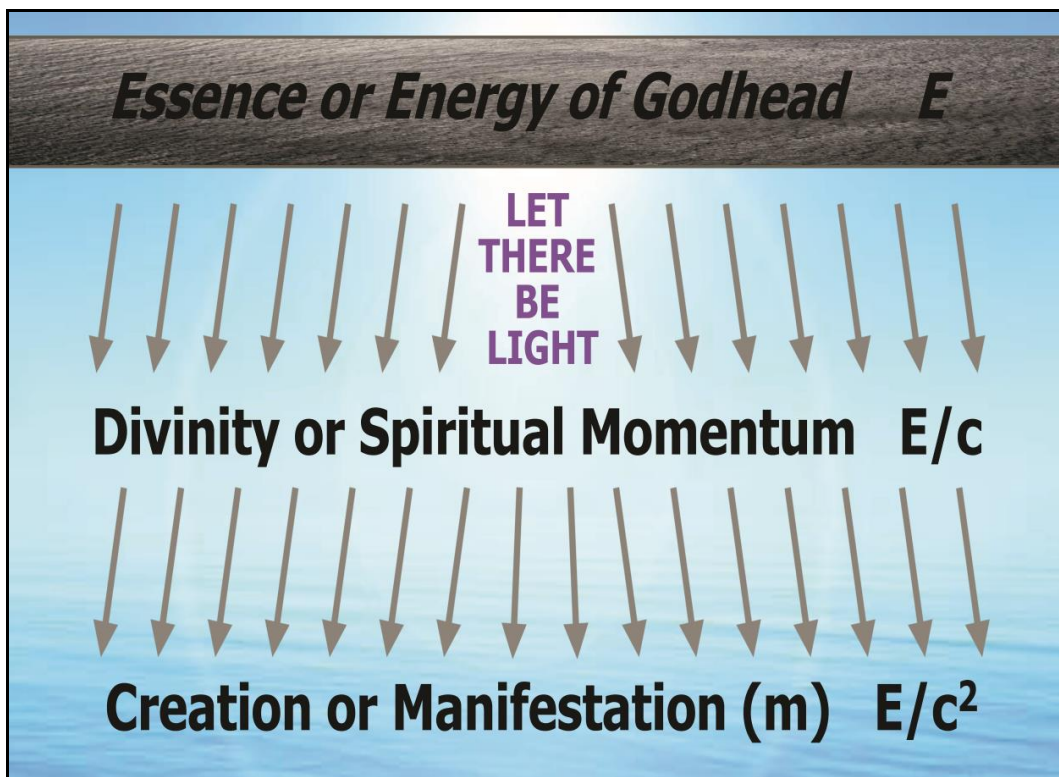
and God separated

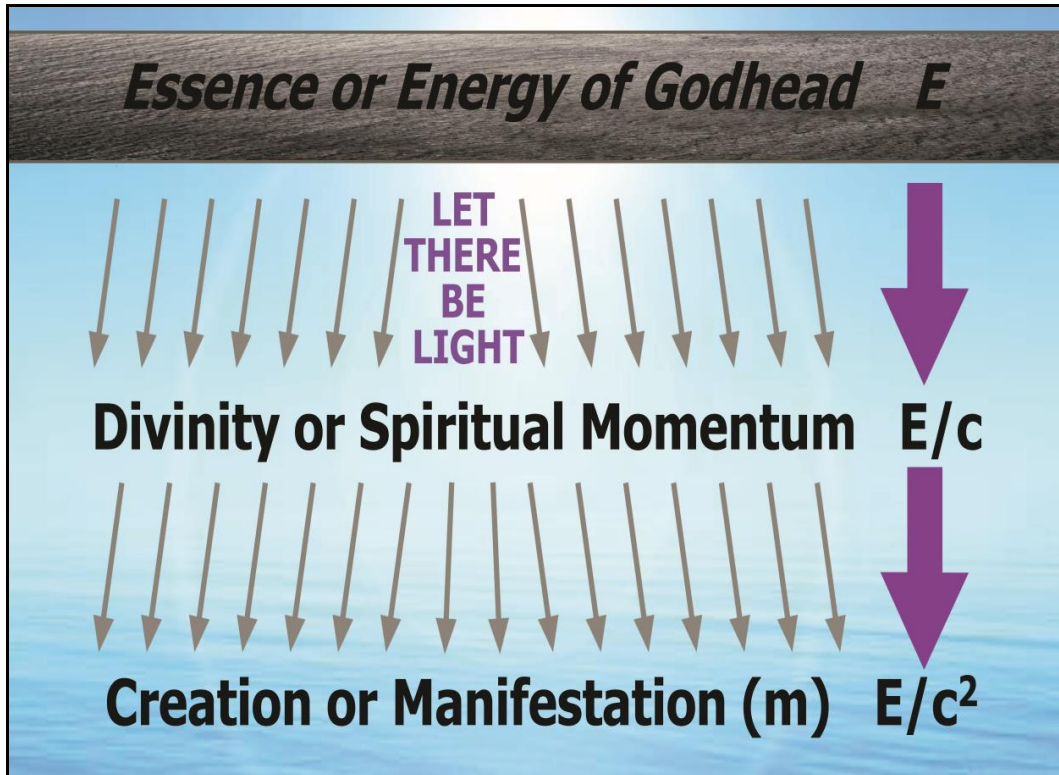
the Light from the darkness.

Gen 1:3-4

Essence or Energy of Godhead E





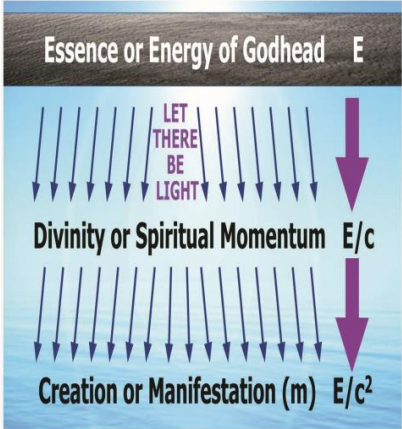


matter is E/c^2

$$\mathbf{m = E/c^2}$$

$$\mathbf{E = m c^2}$$

Einstein's Famous Equation

	Spiritual stages and metaphysical processes	"Science" describing the stage/process	"Vertical Respiration"	
			Evocation	Surrender (Taking Refuge)
	Essence or Energy of Godhead E	Union (Oneness)	Mysticism	Thy WILL <i>Thine</i>
	Revelation	Gnosis	BE	<i>with</i>
	Divinity or Spiritual Momentum E/c	Heavens	Divinity	[Creates Heavens] <i>One</i>
	Divine Grace	Sacred Magic	DONE on (in)	<i>be</i>
	Creation or Manifestation (m) E/c ²	"Kingdom of God" on Earth	Esoteric sciences Natural Sciences	Earth (me) <i>My will</i>

	Spiritual stages and metaphysical processes	"Science" describing the stage/process	"Vertical Respiration"	
			Evocation	Surrender (Taking Refuge)
	E	Union (Oneness)	Mysticism	Thy WILL <i>Thine</i>
	Revelation	Gnosis	BE	<i>with</i>
	E/c	Heavens	Divinity	[Creates Heavens] <i>One</i>
	Divine Grace	Sacred Magic	DONE on (in)	<i>be</i>
	E/c ²	"Kingdom of God" on Earth	Esoteric sciences Natural Sciences	Earth (me) <i>My will</i>

Epistemology of the Heart

- Revelatory epistemology: Discoveries and truths are revealed or unveiled; *shown* rather than ‘figured out.’ A subtle veil is lifted, and truth is nakedly revealed.

“The opposite of ignorance is not knowledge; it is ‘knowledgeless-ness.’ We go beyond all knowledge, to reach a Truth beyond understanding.

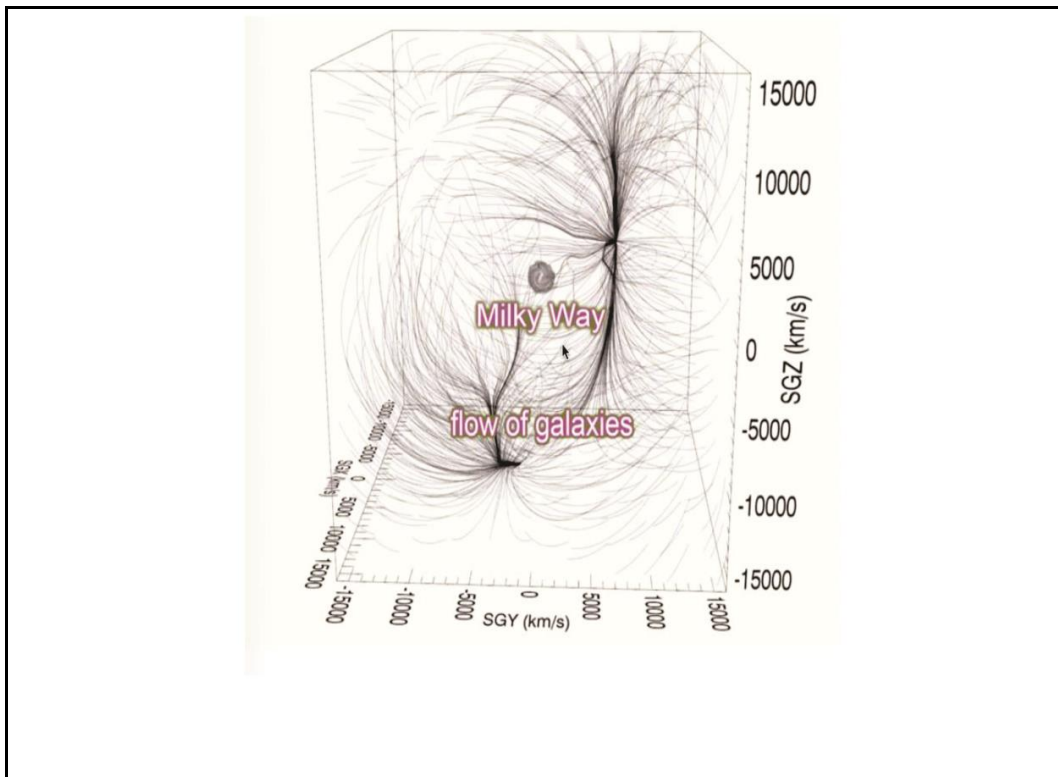
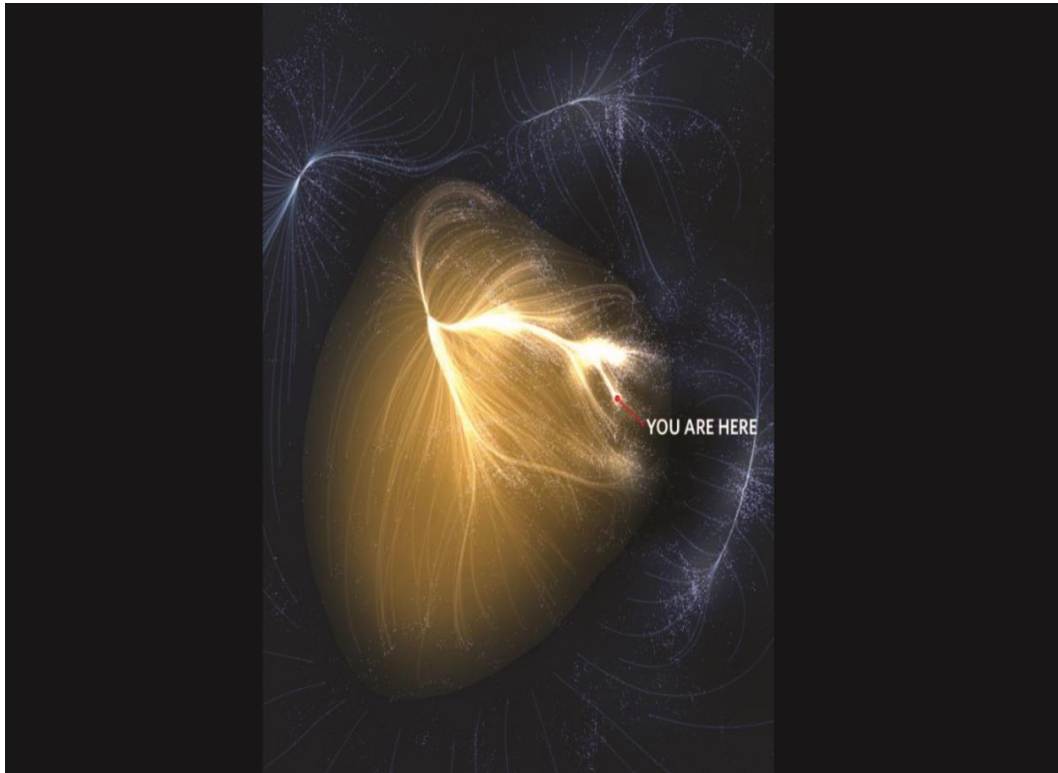
- Behind each ‘veil’ of truth, a deeper truth is revealed.
- The process requires a profoundly sincere, earnest heart:
 - Purifies the heart, polishes the “mirror of the heart”
 - Longing of the heart ‘takes you back to God’
 - Buddha under the Bodhi tree
 - “Where your treasure is, there shall your heart be also”

**Blessed are the pure of heart,
for they shall *see* God.**

- Jesus did *not* say:
 - Blessed are the erudite, for they shall *know* God.
 - Blessed are the geniuses, for they shall *discover* God.
 - Blessed are the eloquent and articulate, for they shall *talk* to God.

Meister Eckhart

*I became human for you.
If you do not become God for Me,
you do Me wrong.*



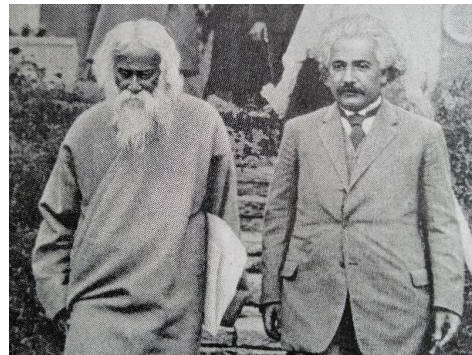
New Scientific Paradigm and Breakthrough Technologies

Dr. Gennady Shipov

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Introduction

In 1930, two great men, Rabindranath Tagore and Albert Einstein, met in Germany. The main question they discussed was, does God exist? Rabindranath Tagore claimed that God exists (he called him the Universal Man), and Albert Einstein, being a spontaneous materialist by virtue of his profession, denied the existence of God. After this meeting, A. Einstein published an article "Religion and Science" [1], in which he expressed a remarkable idea. He said that if God



exists, we must abandon the classical principle of causality. From the point of view of modern science, the rejection of the classical principle of causality (cause precedes effect) means that we recognize the existence of signals whose speed exceeds the speed of light, and even such signals that move from the present to the past. In 1930, science was based on the assumption that the speed of light is the limiting speed of propagation of signals, and A. Einstein himself used this assumption when creating a Special [2] and General [3] theory of relativity. But since then, a lot of time has passed and experiments have appeared in science that show that there are signals in Nature that are faster than the speed of light. For example, three independent astronomical observatories in Russia [4-6] recorded superluminal signals coming from stars, and these results were published in Reports of the USSR Academy of Sciences [5]. Another authoritative scientific journal [7] reported on the observed superluminal relative motion of the diverging components of the galaxy NGC 1275, occurring at a speed of $\sim 5c$. 5 years after his meeting with Rabindranath Tagore, A. Einstein published a paper in 1935 [8], in which he concluded that in quantum mechanics there is a confusion of wave functions, which generates a "terrible long-range effect" (the expression of A. Einstein) that exceeds the speed of light. A. Einstein would be surprised if he knew that in the early 21st century, his guesses about superluminal interactions due to the confusion of vol-new functions would receive experimental confirmation [9-14]. Physics is an experimental science, and the final word in physics belongs to the experiment, not to our theoretical constructions. Therefore, following A. Einstein, the results of superluminal experiments can be considered as the first indirect proof of the existence of God.

Of course, this conclusion takes us beyond the existing materialistic paradigm, in which the speed of light is the limit. From the extended theory of relativity, which allows for superluminal velocities, it follows that in Nature there must be imaginary and negative masses and, accordingly, imaginary and negative energies [14,15]. This is what a new scientific paradigm predicts - the theory of Physical Vacuum [16], whose equations allow for superluminal and instantaneous signals moving at infinite speed.

1. The solution of first Einstein's problem

The theory of Physical Vacuum appeared as a result of the development of Einstein's ideas related to the search for equations of the Unified Field Theory [17-19]. Einstein's program involves solving two fundamental problems of physics: 1) geometrization of electrodynamic equations (Einstein's first problem [20,21]); 2) geometrization of quantum fields (Einstein's second problem [22-24]).

The principal solution to the first Einstein problem was given in [21], using the book by W. Pauli [25], the work of P. Dirac [26], the article by A. Einstein-M. Grossman [3] and the book by A. Fock [27]. The main conclusion made by W. Pauli and P. Dirac is that the applicability of the electrodynamic equations (quantum and classic) is limited by the condition of the weak electromagnetic field [28]

$$\left| \frac{e^3}{m^2 c^4} F^{ik} u_k \right| \approx \left| \frac{e^3}{m^2 c^4} \frac{F}{\sqrt{1 - v^2/c^2}} \right| \ll 1, \quad i, k = 0, 1, 2, 3. \quad (1)$$

Here e, m is the charge and mass of the particle, c is the speed of light, F^{ik} is the electromagnetic field tensor, and $u_k = dx_k/ds$, $u_k u^k = 1$ -4D velocity vector. For a non-relativistic velocity of an electron, for example, the inequality implies the value of the fields $E, H \ll 10^{16}$ units SGSE, for which the electrodynamic equations are performed with great accuracy. For strong electromagnetic fields $E, H \geq 10^{16}$ units SGSE the electrodynamic equations are not applicable and should be replaced by equations that describe the electrodynamics of strong fields [26]. Condition (1) is violated in weak fields due to $\sqrt{1 - v^2/c^2}$ standing in the denominator if the velocities of charged particles become ultrarelativistic. Theorists make a strategic mistake when they claim that the four-dimensional record of the Maxwell-Lorentz equations and the quantum Maxwell-Dirac equations has relativistic invariance. Any physical theory formulated within the framework of special relativity cannot be relativistically invariant in principle, since there are no inertial reference systems in Nature. All observed physical reference systems associated with real physical objects are accelerated and can only be considered inertial with a certain degree of approximation. Therefore, in physics, it became necessary to find general relativistic equations of the electromagnetic field.

In [3], A. Einstein showed that the vector potential formed by the components g_{00} and g_{a0} , can be distinguished from the tensor potential of the gravitational field g_{ik} , while the three-

dimensional part of the geodesic equations in the non-relativistic approximation takes the form of the "gravitational" Lorentz force. On the other hand, in the weak field approximation, A. Fock in the book [27] obtains linear equations similar to Maxwell's equations for the components g_{00} and $g_{\alpha 0}$. Einstein believed that the linearity of Maxwell's equations indicates their approximate nature and that for strong fields, the electrodynamic equations must differ from Maxwell's equations. Guided by these ideas, the author in 1972 published an article "General Relativistic nonlinear electrodynamics with tensor potential," whose equations describe strong electromagnetic fields and have a form similar to Einstein's equations [21]

$$R_{ik} - \frac{1}{2} g_{ik} R = \frac{8\pi k}{c^4} T_{ik}, \quad (2)$$

where the Ricci tensor R_{ik} is defined from the Riemann tensor $R^i_{jkm} = -2 \frac{e}{mc^2} \partial_{[k} E^i_{|j|m]} + 2 \frac{e^2}{mc^4} E^i_{s[k} E^s_{|j|m]}$ parametric Riemann geometry with the metric tensor $g_{ik}(x^i, k) = \eta_{ik} + k a_{ik}$, $\eta_{ik} = \eta^{ik} = \text{diag}(1 - 1 - 1 - 1)$, depending on the proper charge $k = e/m$ of the particle. In equations (2), the intensity of a strong electromagnetic field $E^i_{jk} = -\frac{c^2}{2} g^{im} (a_{jm,k} + a_{km,j} - a_{jk,m})_{,k} = \partial_k$ is determined by the tensor potential $a_{ik} = a_{ki}$ from which the vector potential of the Maxwell-Lorentz electrodynamics is constructed

$$A_0 = \frac{c^2}{2} a_{00}, \quad A_\alpha = a_{\alpha 0} c^2, \quad \alpha, \beta = 1, 2, 3.$$

In the energy-momentum tensor $T_{ik} = \rho c^2 u_i u_k$ the density of ρ for a point charged particle is $\rho = Ze\delta(x_i)$, $Z = 1, 2, 3, \dots$. The equations of motion of the field source follow from the field equations (2) after using the Bianchi identity and, in general, are written as $\nabla_i T^{ik} = 0$. If the field is weak, we have

$$\left| k a_{ik} \frac{dx^i}{ds} \frac{dx^k}{ds} \right| \ll 1. \quad (3)$$

This condition is equivalent to condition (1), the field equations (2) pass into Maxwell's equations when the condition (3) is met. In strong electromagnetic fields $E, H \geq 10^{16}$ units SGSE which begin to strongly influence on distances of the order $r \sim < 10^{16}$ sm i.e. where strong and weak interactions were detected. Using solutions of equations (2), the author and his colleagues showed [29,30] that the *nuclear interactions of charged and neutral particles are described by solutions of equations (2) in a fundamental way, without introducing phenomenological nuclear potentials.*

2. The solution of second Einstein's problem

A. Einstein believed that the general principle of relativity is the only way to avoid such an "unreal thing" as an inertial frame of reference. Therefore, from the very beginning, the equations of physics must be formulated in accelerated reference systems. For example, the equations of mass motion m of Newton's mechanics in accelerated reference systems look like [31]

$$m \frac{d\vec{v}}{dt} = -\frac{\partial U}{\partial \vec{r}} - m\vec{W} - m[\vec{\omega}[\vec{\omega}\vec{r}']] - 2m[\vec{\omega}\vec{v}'] - m[\frac{d\vec{\omega}}{dt}\vec{r}'], \quad (4)$$

where $\vec{F} = -\partial U/\partial \vec{r}$ - the external Newtonian force and $-m\vec{W} - m[\vec{\omega}[\vec{\omega}\vec{r}']] - 2m[\vec{\omega}\vec{v}'] - m[\frac{d\vec{\omega}}{dt}\vec{r}']$ - the four forces of inertia. The (quasi)inertial reference system is such a system in which the forces of inertia can be neglected. In 1659, Christian Huygens first wrote an analytical expression for the force $-m\omega^2 r$ and introduced the term "centrifugal force", and Newton was the first to raise the question of what is the source of inertia forces? Since then, three and a half centuries have passed, but there is still no clear answer to this question in the scientific literature, which indicates its extreme importance for theoretical physics. In fact, each of us constantly in everyday life feels (often unconsciously) the action of those fundamental forces: gravitational, electromagnetic, and inertial forces. All these forces have a field nature, determined by gravitational, electromagnetic fields and the field of inertia. According to the equations of Einstein's theory of gravity and the equations of general relativistic electrodynamics (2), strong gravitational and electro-magnetic fields change the geometry of the event space and, as it turned out, the field of inertia changes the geometry of the event space, generating torsion and curvature [16]. Experimentally

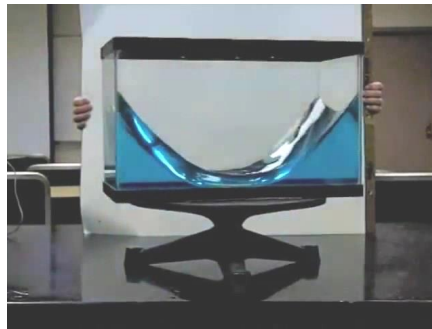


Fig. 1. Curvature of the water surface when the vessel rotates

this can be demonstrated by rotating the liquid in the vessel as shown in Fig. 1. We see that the surface of the water is curved and the line lying on the surface of the water is a parabola (before the rotation, the line was straight). Analytical calculations that give a parabolic view of the surface are not possible without taking into account the centrifugal force of inertia. But the force of inertia is generated by the field of inertia, so the unambiguous answer to Newton's question is: the source of the curvature of the water surface in a rotating vessel is the field of inertia, which generates the forces of inertia. The term field of inertia was first used by A. Einstein formulated a strong equivalence principle, which reads as follows: the

action on the mass of a uniform field of inertia is locally equivalent to the action of a uniform gravitational field. The strong equivalence principle is experimentally performed in a free-falling A. Einstein Elevator and the equations of motion (4) in this case have the form

$$m \frac{d\vec{v}}{dt} = m\vec{g} - m\vec{W} = 0, \quad (5)$$

where \vec{g} is the acceleration of free fall. It really follows from (5) that locally (in a free-falling Elevator) the uniform gravitational field \vec{g} is equivalent to the uniform field of inertia \vec{W} . Turning to equations (4), we see that three forces are generated by rotation in the spatial angles $\varphi_1, \varphi_2, \varphi_3$ in the three-dimensional space of coordinates x, y, z , and the fourth force $-m\vec{W}$ is generated by rotation in the space-time angles $\theta_1, \theta_2, \theta_3$ [16]. This raises a theoretical question if the forces and fields of inertia are generated by rotational motion in nonholonomic, dimensionless coordinates $\varphi_1, \varphi_2, \varphi_3, \theta_1, \theta_2, \theta_3$ and the experiment shows a change in the internal geometry of the rotating fluid (Fig.1) what is the geometry of the rotating material medium? And here's what the famous mathematician Eli Cartan thinks about it: "The rotation of matter generates torsion of space [32]", while E. Cartan's student, the talented mathematician J. Schouten associates the nonholonomic coordinates $\varphi_1, \varphi_2, \varphi_3, \theta_1, \theta_2, \theta_3$ with the nonholonomic object [33]

$$\Omega^i{}_{jk} = e^i{}_a e^a{}_{[k,j]} = -\frac{1}{2} e^i{}_a (e^a{}_{j,k} - e^a{}_{k,j}) \neq 0, \quad ,_k = \frac{\partial}{\partial x^k}, \quad (6)$$

$$i, j, k \dots = 0, 1, 2, 3, \quad a, b, c \dots = 0, 1, 2, 3,$$

where $e^a{}_k$ is a nonholonomic tetrad that satisfies orthogonality conditions

$$e^a{}_i e^j{}_a = \delta^j{}_i, \quad e^a{}_i e^i{}_b = \delta^a{}_b. \quad (7)$$

The four vectors $e^a{}_k$ form the basis of a relativistic frame of reference when it is associated with a physical object. Such a basis has 10 degrees of freedom, described by the four holonomic translational coordinates x, y, z, ct and the six nonholonomic rotational coordinates $\varphi_1, \varphi_2, \varphi_3, \theta_1, \theta_2, \theta_3$. The simplest 10-dimensional geometry with characteristics (6,7) that generalizes Riemann's geometry is the geometry of absolute parallelism $A_4(6)$, whose connection is written as [16]

$$\Delta^i{}_{jk} = \Gamma^i{}_{jk} + T^i{}_{jk} = e^i{}_a e^a{}_{j,k} = -e^a{}_j e^i{}_{a,k}, \quad (8)$$

where $\Gamma^i{}_{jk} = g^{im}(g_{jm,k} + g_{km,j} - g_{jk,m})/2$ are the Cristoffel symbols and

$$T^i{}_{jk} = -\Omega^i{}_{jk} + g^{im}(g_{js}\Omega^s{}_{mk} + g_{ks}\Omega^s{}_{mj}) = e^i{}_a \nabla_k e^a{}_j = -e^a{}_j \nabla_k e^i{}_a, \quad (9)$$

- Ricci rotation coefficients. Here, ∇_k denotes the covariant derivative with respect to $\Gamma^i{}_{jk}$.

Using the angles $\varphi_1, \varphi_2, \varphi_3, \theta_1, \theta_2, \theta_3$ as space elements leads to a generalization of the Lagrange equations [17]

$$\frac{d}{dt} \left(\frac{\partial L}{\partial \dot{x}^i} \right) - \frac{\partial L}{\partial x^i} = -2\dot{x}^k \frac{\partial L}{\partial \dot{x}^j} \Omega^j_{ki}, \quad \dot{x}^k = dx^k/dt, \quad (10)$$

where $\{\Omega^j_{ki}\}$ is a nonholonomic object (6). Using (10), we obtain the following relation

$$\frac{du^k}{ds} + \Gamma^k_{ij} u^i u^j + T^k_{ij} u^i u^j = 0, \quad u^k = \frac{dx^k}{ds}, \quad (11)$$

instead of the equations of motion of Einstein's theory of gravity. As the calculations show, the addition of the force $mT^k_{ij}u^i u^j$ to the equations of Einstein's theory of gravity $mdu^k/ds + m\Gamma^k_{ij}u^i u^j = 0$ in equations (11) describes the force of inertia, and the field T^k_{ij} , respectively, is the field of inertia. Indeed, in the non-relativistic approximation, the three-dimensional part of equations (11) passes into equations (5), where $W^\alpha = T^\alpha_{00}$.

In the works of the author [22-24], it was shown that using the definition of the curvature tensor of the space of absolute parallelism $A_4(6)$, we find completely geometrized Einstein equations

$$R_{ik} - \frac{1}{2} g_{ik} R = \nu T_{ik}, \quad (12)$$

in which the energy-momentum tensor of matter T_{ik} is generated by the inertia field T^k_{ij} and is defined as

$$T_{jm} = -\frac{2}{\nu} \left\{ (\nabla_{[i} T^i_{j|m]} + T^i_{s[j} T^s_{i|m]}) - \frac{1}{2} g_{jm} g^{pn} (\nabla_{[i} T^i_{p|n]} + T^i_{s[i} T^s_{p|n]}) \right\}. \quad (13)$$

Thus, the relations (12) and (13) of the $A_4(6)$ geometry fundamentally solve Einstein's second problem of geometrization of the energy-momentum tensor.

3. The Universal principle of Relativity and the theory of Physical Vacuum

Note that modern relativity theories (Special and General) use translational relativity established on the manifold of four translational holonomic coordinates x, y, z, ct . Since in geometry $A_4(6)$ the nonholonomic rotational coordinates $\varphi_1, \varphi_2, \varphi_3, \theta_1, \theta_2, \theta_3$ are elements of an event space, then all physical quantities in such a space must be functions of angles $\varphi_1, \varphi_2, \varphi_3, \theta_1, \theta_2, \theta_3$, and all physics equations in such an event space must be invariants with respect to transformations on the manifold of rotational coordinates. Therefore, two metrics are set in the $A_4(6)$ space:

- 1) a translation metric is given on the manifold of holonomic translational coordinates x, y, z, ct

$$ds^2 = g_{ik} dx^i dx^k, \quad g_{jk} = \eta_{ab} e^a_j e^b_k, \quad \eta_{ab} = \eta^{ab} = \text{diag}(1 - 1 - 1 - 1); \quad (14)$$

- 2) on the manifold of nonholonomic rotational coordinates $\varphi_1, \varphi_2, \varphi_3, \theta_1, \theta_2, \theta_3$ a rotational metric is set

$$d\tau^2 = d\chi^a_b d\chi^b_a = T^a_{bk} T^b_{an} dx^k dx^n. \quad (15)$$

Combining translational relativity (14) with rotational relativity (15) provides Universal relativity for physics equations. The simplest equations that follow the principle of Universal relativity are the equations of Physical Vacuum. Written in a vector basis, these equations look like an extended system of Einstein-Yang-Mills equations [16]

$$\nabla_{[k} e^a_{j]} + T^i_{[kj]} e^a_i = 0, \quad (A)$$

$$R_{ik} - \frac{1}{2} g_{ik} R = \nu T_{ik}, \quad (B.1)$$

$$C^i_{jkm} + 2\nabla_{[k} T^i_{j|m]} + 2T^i_{s[k} T^s_{j|m]} = -\nu J^i_{jkm}, \quad (B.2)$$

for which the gauge group is the local Poincare group. In the equations (B.1), the energy-momentum tensor has the form (13), while in the Yang-Mills equations (B.1), the current tensor in the right part is defined by the energy-momentum tensor (13) [16]. Equations (A) are a definition of the torsion (6) of the space of absolute parallelism. The system of equations (A), (B.1), and (B.2) are structural Cartan equations of absolute parallelism geometry. As is proper, they do not include any physical constants. The physical constants appear in the solution (integration) of the equations of Physical Vacuum and compare the obtained solutions with the known fundamental equations. Acting in this way, we get the equations of Einstein's theory of gravity and the field equations (2) of general relativistic electrodynamics. Thus, the equations of Physical Vacuum are the potential state of three types of fundamental fields: gravitational, electromagnetic, and inertial fields. Most likely, the remaining numerous constructive fields introduced to describe anomalous interactions

mimic the strong gravitational, electromagnetic, and strong fields of inertia found through experiment.

The problem of the motion of matter in the equations of Physical Vacuum is reduced to the study of the motion of two objects: 1) a "rotating point" (an oriented point) associated with a nonholonomic tetrad e^b_k ; 2) density of matter ρ

$$\rho = \frac{T}{c^2} = \frac{g^{jm}T_{jm}}{c^2} = \frac{2g^{jm}}{vc^2} \{ \nabla_{[i} T_{j|m]}^i + T_{s[j}^i T_{i|m]}^s \}, \quad (16)$$

forming the energy-momentum tensor of matter (13). The equations of motion of the oriented point follow from the equations (A)

$$\nabla_k e_j^a + T_{kj}^i e_i^a = 0. \quad (17)$$

If you specialize the tetrad e_j^a so that $e_j^0 = u_j$, $u_j u^j = 1$, then from (17) we get the equations of motion of the origin O of the orientable point that coincide with the translational equations (11) and the rotational equations of motion of the orientable point

$$\nabla_k e_j^\beta + T_{kj}^i e_i^\beta = 0, \quad \alpha, \beta, \gamma \dots = 1, 2, 3. \quad (18)$$

Thus, the equations (17) combine the translational equations (11) with the rotational equations (18) and reduce all movements in the mechanics of the orientable point to rotation. That is why this mechanics was called Descartes' mechanics by the author [34]. In a certain sense, equations (17) can be considered as a relativistic generalization of Euler's equations describing the accelerated translational and rotational motion of an absolutely solid body of small dimensions.

The equations of motion the density of matter (16) follow from the equations (B.1) after the Bianchi identity in the space $A_4(6)$ is applied to them. As a result, we have:

1) generalized continuity equation

$$\nabla^*_{\cdot i}(\rho u^i) = \partial_i(\rho u^i) + \rho u^n \Gamma^j_{nj} + \rho u^n T^j_{nj} = 0; \quad (19)$$

2) generalized Euler equations

$$\rho \frac{du^k}{ds} + \rho \Gamma^k_{mn} u^m u^n + \rho T^k_{mn} u^m u^n = 0; \quad (20)$$

3) equation for an incompressible "liquid"

$$\nabla^*{}_i \rho_\mu = \partial_i \rho_\mu = 0, \quad (21)$$

where ∇^*_i is the covariant derivative with respect to connection (8). The continuity equation (19) is a conservation law for a variable mass or charge in the theory of Physical Vacuum having density (16). The geometrized Euler equations describe the motion of density (16) in an accelerated frame of reference. In the (quasi) inertial frame of reference, the density (16) is simplified and takes the form $\rho = -T^{ji}{}_s T_{ji}{}^s / \nu c^2$ [16]. In the case of general relativistic electrodynamics, following from the equations of Physical Vacuum (A), (B. 1), and (B. 2), the density ρ can be represented via a complex scalar field $\psi(x^i)$, normalized by unit

$$\begin{aligned} \rho &= Ze\psi * \psi = Ze\delta(\vec{r}), \quad \psi(x^i) = \\ &= \sqrt{\left| \frac{1}{4\pi r_e} \right|} \varphi(x^i) \exp(i\varphi), \quad \int \psi * \psi dV = 1, \quad r_e = 2Ze^2/mc^2. \end{aligned} \quad (22)$$

If we assume that the field $\psi(x^i)$ coincides with the de Broglie wave, i.e. $= S/\hbar$, where S is the action, we then apply it to the continuity equation (19), reversing the procedure of E. Madelung [35], obtained from (19) (in the approximation of the constant charge) of the Schrödinger equation for normalized field (22). The simplest way to indicate the connection of the physical field of inertia with the wave function of quantum mechanics is given here, but the complexification of the Physical Vacuum equations (A), (B.1) and (B.2) allows us to prove this connection more convincingly. Since the field of inertia that determines the density of matter (22) is associated with the wave function of quantum mechanics, the entanglement of wave functions (EPR effect [8]) causes entanglements of the densities of interacting objects. This property of subquantum physics generates super-causality, which means that there is a connection between each pair of interacting objects, no matter how far away they are.

4. Complex representation of Physical Vacuum equations

The rotational relativity of physics equations and the observed quantum phenomena are closely related. It can be argued that the nature of quantization is the rotation of matter. The simple formula $\varphi = S/\hbar$, where S is an action, takes on a more general form, namely

$$S = \hbar \int d\tau = \hbar \int \sqrt{T^a{}_{bk} T^b{}_{an} dx^k dx^n} = \hbar \int \sqrt{\Omega^a{}_b \Omega^b{}_{an}} ds \quad (23)$$

where $d\tau$ is an infinitesimal rotation defined from the rotational metric(15). In (23) $\Omega^a_b = T^a_{bk} dx^k/ds$ -angular velocity matrix of rotation [16]

$$\Omega_{ij} = -\Omega_{ji} = \frac{1}{c^2} \begin{pmatrix} 0 & -W_1 & -W_2 & -W_3 \\ W_1 & 0 & -c\omega_3 & c\omega_2 \\ W_2 & c\omega_3 & 0 & -c\omega_1 \\ W_3 & -c\omega_2 & c\omega_1 & 0 \end{pmatrix}. \quad (24)$$

Here $\vec{\omega} = (\omega_1, \omega_2, \omega_3)$ is a pseudo-vector of spatial rotation (rotation in Euler angles $\varphi_1, \varphi_2, \varphi_3$), $\vec{W} = (W_1, W_2, W_3)$ is a pseudo-vector of space-time rotation (rotation in space-time angles $\theta_1, \theta_2, \theta_3$) and c is the speed of light.

The simplest rotation of a material point along a circle of radius r is described on the complex plane by the complex number $z = x + iy$, which can be represented in the following forms

$$z = x + iy = r(\cos\varphi + i \sin\varphi) = r \exp(i\varphi). \quad (25)$$

Here $|z| = r = \sqrt{x^2 + y^2}$ and $\varphi = \text{Arg } z$ the angle of rotation of radius r . In general, the radius and argument of a complex number can be functions of the arc length of the motion of a physical system. Then, assuming in (24) $\varphi = S/\hbar$, where S is the action of a physical system, we find an analogy (25) with the de Broglie wave. Given (23), it makes sense to introduce a generalized (vacuum) de Broglie wave of the following form

$$\psi = \psi_0 \exp \frac{i}{\hbar} S = \psi_0 \exp \frac{i}{\hbar} \left(\hbar \int \sqrt{\Omega^a_b \Omega^b_{an}} ds \right). \quad (26)$$

This wave function shows that the basis of deterministic quantum physics is conditioned by rotation and the field of inertia T^a_{bk} .

John Wheeler, a student of A. Einstein, noted that to combine quantum theory and relativity, it is necessary to use a complex space in the spinor representation [36]. This work was done by R. Penrose, whose peak was the Newman-Penrose method of spin coefficients, known among theorists [37], which allowed us to obtain a number of new solutions to Einstein's equations. Using the Carmel spinor matrices [38-40], the author proved the equivalent of the Newman-Penrose spinor formalism and the Physical Vacuum equations written in the spinor frame of reference [16]. In general, the equations of Physical Vacuum are represented as a system of nonlinear spinor equations, which includes the equations of Matter of the Right-handed World:

1) geometrized nonlinear Heisenberg spinor equations with nonlinearity Ψ^3

$$\begin{aligned} \nabla_{\beta\dot{\chi}}\iota_{\alpha} &= \nu o_{\alpha}o_{\beta}\bar{o}_{\dot{\chi}} - \lambda o_{\alpha}o_{\beta}\bar{l}_{\dot{\chi}} - \mu o_{\alpha}\iota_{\beta}\bar{o}_{\dot{\chi}} + \pi o_{\alpha}\iota_{\beta}\bar{l}_{\dot{\chi}} \\ &\quad - \gamma\iota_{\alpha}o_{\beta}\bar{o}_{\dot{\chi}} + \alpha\iota_{\alpha}o_{\beta}\bar{l}_{\dot{\chi}} + \beta\iota_{\alpha}\iota_{\beta}\bar{o}_{\dot{\chi}} - \varepsilon\iota_{\alpha}\iota_{\beta}\bar{l}_{\dot{\chi}}, \end{aligned} \quad (A_{s+}.1)^+$$

$$\begin{aligned} \nabla_{\beta\dot{\chi}}o_{\alpha} &= \gamma o_{\alpha}o_{\beta}\bar{o}_{\dot{\chi}} - \alpha o_{\alpha}o_{\beta}\bar{l}_{\dot{\chi}} - \beta o_{\alpha}\iota_{\beta}\bar{o}_{\dot{\chi}} + \varepsilon o_{\alpha}\iota_{\beta}\bar{l}_{\dot{\chi}} - \\ &\quad - \tau\iota_{\alpha}o_{\beta}\bar{o}_{\dot{\chi}} + \rho\iota_{\alpha}o_{\beta}\bar{l}_{\dot{\chi}} + \sigma\iota_{\alpha}\iota_{\beta}\bar{o}_{\dot{\chi}} - \kappa\iota_{\alpha}\iota_{\beta}\bar{l}_{\dot{\chi}}, \end{aligned} \quad (A_{s+}.2)^+$$

$$\alpha, \beta \dots = 0, 1, \dot{\chi}, \dot{\gamma} \dots = \dot{0}, \dot{1},$$

2) geometrized spinor Einstein equations

$$2\Phi_{AB\dot{C}\dot{D}} + \Lambda\varepsilon_{AB}\varepsilon_{\dot{C}\dot{D}} = \nu T_{A\dot{C}B\dot{D}}, \quad (B_{s+}.1)^+$$

3) geometrized spinor Yang-Mills equations with a gauge group $SL(2.C)$

$$\begin{aligned} C_{A\dot{B}C\dot{D}} - \partial_{C\dot{D}}T_{A\dot{B}} + \partial_{A\dot{B}}T_{C\dot{D}} + (T_{C\dot{D}})_A^{\dot{F}}T_{F\dot{B}} + (T^+_{\dot{D}C})_{\dot{B}}^{\dot{F}}T_{A\dot{F}} - \\ - (T_{A\dot{B}})_C^{\dot{F}}T_{F\dot{D}} - (T^+_{\dot{B}A})_{\dot{D}}^{\dot{F}}T_{C\dot{F}} - [T_{A\dot{B}}T_{C\dot{D}}] = -\nu J_{A\dot{C}B\dot{D}}, \end{aligned} \quad (B_{s+}.2)^+$$

$$A, B \dots = 0, 1, \dot{B}, \dot{D} \dots = \dot{0}, 1$$

To these equations we must add the complex conjugate equations and equations of the Left-handed World. Two-component spinors ι_{α} , o_{α} in generalized Heisenberg equations $(A_{s+}.1)$ and $(A_{s+}.2)$ form a 4-component Dirac spinor in ordinary quantum theory. They are converted by the D $(\frac{1}{2}, \frac{1}{2})$ irreducible representation of the group $SL(2.C)$. Spinor recording of Einstein's equations $(B_{s+}.1)$ contains the geometrized energy-momentum tensor $T_{A\dot{C}B\dot{D}}$ of matter in the right part. In turn, the tensor $T_{A\dot{C}B\dot{D}}$ is defined via the spin tensor of the contorsion $T_{F\dot{B}}$ (via Carmel₊ matrices) of the geometry $A_4(6)$. Spinor representation of the Yang-Mills equations $(B_{s+}.2)$ with the $SL(2.C)$ gauge group (2.C) contains in the right part the current tensor $J_{A\dot{C}B\dot{D}}$ which is defined through the energy-momentum tensor $T_{A\dot{C}B\dot{D}}$. According to the equations $(A_{s+}.1)$ - $(B_{s+}.2)$ we can consider a Physical Vacuum as a continuous medium with elastic properties. Any perturbation of such a medium is described by a set of nonlinear spinor Heisenberg-Einstein-Yang-Mills equations. These equations describe three fundamental fields: gravitational, electromagnetic, and inertia fields. In general, any vacuum excitation - an "elementary particle" - is described by all these equations simultaneously. If the Riemannian curvature of the Physical Vacuum is zero, then only the equations remain for such objects $(A_{s+}.1)$ and $(A_{s+}.2)$, which describe "Primary fields of inertia" that do not have energy, but carry information [16].

In the Right-handed World, where all modern field theories are built, the arrow of time is directed from the present to the future, so the classical principle of causality is fulfilled for the equations of the Right-handed World. In the Left-handed World, the arrow of time is directed from the present to the past, so in the Left-handed World there are negative energies and the effect precedes the cause. Thus, the equations of Physical Vacuum cover all areas of space, and their solutions are triplet-like (Fig.2). For example, we have the solution Right-handed World equations $(A_{s+}.1)$, $(A_{s+}.2)$, $(B_{s+}.1)$, $(B_{s+}.2)$ with the translation metric,

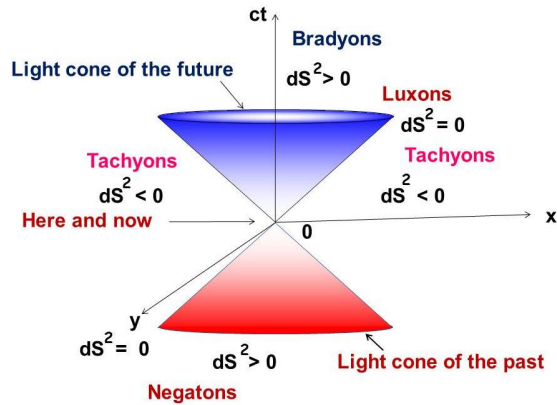


Fig.2. Solutions of Physical Vacuum equations cover all areas of space

Schwarzschild describes a triplet consisting of a bradyon (pre-light travel speeds), a luxon (light travel speeds), and a tachyon (superluminal travel speeds). Solutions to the Left-handed World equations describe bradyons, luxons with negative mass or energy, and tachyons moving backwards in time – from the future to the past.

5. Superluminal experiments

Analysis of the Physical Vacuum equations shows that they make it possible to distinguish seven main levels of Reality: solid, liquid, gas, plasma (or elementary particles), Physical Vacuum, Primary torsion field (Primary field of Inertia), and Absolute Nothing. All these levels correspond to a certain type of equation, and only the highest level – Absolute Nothing corresponds to the meaningless (from the point of view of traditional science) identity $0 \equiv 0$. But it is at this level that the development of meaningful physics begins, when a Primary field of Inertia appears out of Absolute Nothing (absolute Vacuum), described by the equations of Physical Vacuum $(A_s+.1)$, $(A_s+.2)$, $(B_s+.1)$, $(B_s+.2)$, in which the matter-energy-momentum tensor T_{ACBD} in the equations $(B_s+.1)$ and the current tensor J_{ACBD} in the equations $(B_s+.2)$ equal zero. Here, for the first time, we encounter a physical object that does not have traditional energies, but carries information that can affect the material World. In addition, solutions of the Physical Vacuum equations predict the existence of superluminal signals and signals that move backwards in time. For Fig. 3 the scheme of registration of superluminal signals detected for the first time by the famous astronomer Professor N. Kozyrev at Pulkovo Observatory (St. Petersburg, Russia) [4] is presented. Knowing the distance D to the star observed in the optical range (the optical position of the star) and knowing its speed of movement v , it is possible to determine the position of the star on the celestial sphere at the present time (the real position of the star Fig.3). N. Kozyrev pointed the telescope at the place where the star should have been located at the time of observation, while the entrance aperture of the telescope was covered with black paper opaque to light (shown at the bottom right in Fig.3). A Winston bridge was used as a recording system. As

soon as the telescope's aperture was directed to the true position of the star, superluminal radiation (tachyons) passed through the

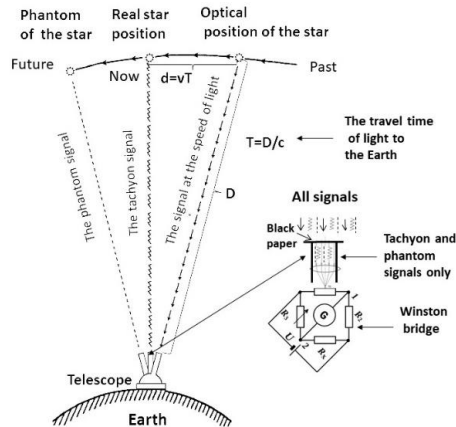


Fig. 3. Observation of superluminal and phantom signals emanating from stars

black paper and caused the current to unbalance in the Winston bridge. Kozyrev's experiments were repeated in two other observatories in Russia: at Novosibirsk Observatory under the guidance of RAS academician M. Lavrentiev [5] and at Crimea Observatory by A. Akimov and others [6]. Measurements of the phantom (future) position of a star were completely unexpected for traditional science (Fig.3), when the signal from the star was registered in the place where the star will be located at time T in the future. This signal is not emitted by the star itself, but by its phantom (Fig.3), which for an observer on Earth is in the future. Here we clearly observe a violation of the classical principle of causality.

Again, returning to the work of A. Einstein "Religion and science" [1], we recall that the violation of the classical principle of causality is an indirect indication of the existence of God. In this regard, in 1998, the popular magazine *Ogonyok* published my interview titled "God exists. Now this has been proved by physicists" [41], and a year later in St. Petersburg, physicists V. Tikhoplav and T. Tikhoplav published several popular books called *The Physics of Faith*. Most professionally, the connection of torsion fields with the latest technologies is described in Bozhidar Paliushev's book *Physics of God* (2003).

6. Experiments and technologies

Starting from the middle of the 20th century, devices began to appear in Russia that affected various objects in an incomprehensible way [5]. Over time, they became known as *torsion generators*, since their action was based, in most cases, on rotational motion. To study these phenomena, the Committee on Science and Technology of the USSR in 1986 established the Scientific and Technical Center for Venture and Nontraditional Technologies

(ISTC VENT) under the leadership of A.E. Akimov. As a result of this organization's work, the foundations of nine technologies were laid between 1986 and 1991, some of which are now being developed into commercial products (Fig. 4)



Fig.4. An overview of torsion technologies

6.1 Torsion transport

One of the criteria for the fundamental nature of the new scientific paradigm is a new mechanics that allows you to create a fundamentally different means of transportation. In our case, it follows from the density of matter (16) that the mass of an object is defined as a measure of the field of inertia

$$m(\Omega_j^i) = \frac{2}{\nu c^2} \int (-g)^{1/2} \{g^{jm} (\nabla_{[i} T_{j|m]}^i + T_{s[i}^i T_{j|m]}^s)\} dV \quad (27)$$

and depends on the angular velocity $\Omega_j^i = T_{jk}^i dx^k/ds$ of the elements composing it. By controlling the angular velocity of rotation within the system, you can change the speed of its center of mass in accordance with the equation [34]

$$\frac{d}{dt}(m(t)v(t)) = m(t) \frac{d}{dt}(v(t)) + v(t) \frac{d}{dt}(m(t)) = 0.$$

The theoretical basis of this method of motion is the equations of the theory of Physical Vacuum, in particular equations (11), which describe the movement of the center of mass of an object under the action of fields of inertia and inertia forces. A simple model of such a device is a 4D gyroscope [42] that rotates both in the spatial angles $\varphi_1, \varphi_2, \varphi_3$, and in the space-time angles $\theta_1, \theta_2, \theta_3$. By controlling the fields of inertia, you can change the curvature of the local space in accordance with the Raychaudhuri equation [43,44]

$$R_{ab}u^a u^b = \omega_{ab}\omega^{ab} - \sigma_{ab}\sigma^{ab} + \theta^2/3 - d\theta/ds. \quad (28)$$

This equation is a consequence of the equations of Physical Vacuum (*B.I*). The curvature of R_{ab} space changes if you change the inertia field $T^c_{ab} = -A_a u_b u^c + \omega_{ab} u^c + \sigma_{ab} u^c + \theta h_{ab} u^c/3$, i.e. the parameters ω_{ab} , σ_{ab} and θ , which are irreducible parts of the inertia field T^c_{ab} . Using equation (28), the English physicist M. Alcubierre proposed a space vehicle that moves in space using an engine, managing the expansion θ of space [45]. The work of Russian researchers [42, 46-49] showed that the use of the rotation parameter ω_{ab} is more promising, since there is a relationship between the acceleration parameter A_a and the rotation parameter ω_{ab} as $\nabla_a \omega^a - A_a \omega^a = 0$, $\omega^a = \varepsilon^{abc} \omega_{bc}/2$ [44]. This equation shows that the uneven rotation of the ω^a engine elements inside the spacecraft hull generates acceleration A_a of its center of mass. The movement of non-relativistic engine models using equation (28) of the form $R_{ab}u^a u^b = \omega_{ab}\omega^{ab}$ can be seen in movies https://www.youtube.com/watch?v=8BwR_qi4mYs and <https://www.youtube.com/watch?v=oQ8ic-kB7Dk>.

6.2 The Torsion energy

In traditional quantum theory, it is well known that a Physical Vacuum has the energy of vacuum fluctuations, and theoretically this energy is infinite. This energy is not only a conclusion of the theory, but a phenomenon that is detected in experiments. In 1947, V. Lamb experimentally discovered an energy shift between the levels of $2S^{1/2}$ and $2P^{1/2}$ of the hydrogen atom, the value of which corresponds to the frequency $\nu = 1075\text{MHz}$. Later, in 1958, the Russian physicist D. Blokhintsev made theoretical calculations of this phenomenon. Accordingly, any atom of the substances surrounding us experiences a similar effect from the Physical Vacuum. Since hydrogen is part of the water molecule and a person is 80% water, you can imagine how important is the interaction of the Physical Vacuum with the physical body of a person in everyday life. It seems that the interaction of the Physical vacuum with matter occurs only at the micro level, but the well-known Casimir effect shows that the Physical Vacuum is able to interact with macro objects (Fig.5). The Casimir effect was predicted in 1948; its essence is that two parallel metal plates placed in a Physical Vacuum are attracted with a force $F = \pi \hbar c S / 480 d^4$, where S is the

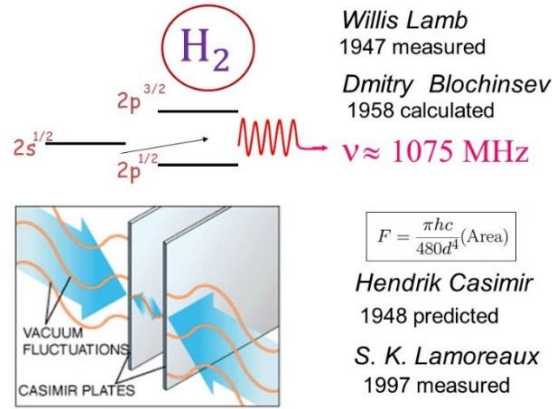


Fig. 5. Lamb shift and the Casimir effect

area of the plates and d is the distance between them. Note that the energy of this force is negative. This is very important, since negative energies allow for the existence of a second-order perpetual motion machine [15]. Indeed, the Physical Vacuum "permeates" all the objects of the World, and due to this fact, in the theory of Physical Vacuum, there are no closed systems in both the macro and micro worlds, so all systems constantly exchange energy with the Physical Vacuum. To describe this process, it is convenient to use the Physical Vacuum equations presented in the form of the Takabayashi equations [50-54]

$$m \frac{dv_\alpha}{dt} = \left\{ e\vec{E} + \frac{e}{c} [\vec{v}\vec{H}] \right\}_\alpha + \frac{e}{mc} S_\beta \partial_\alpha H_\beta + \frac{1}{m\rho} \partial_\beta (\rho \partial_\alpha S_\gamma \cdot \partial_\beta S_\gamma) + \partial_\alpha \left(\frac{\hbar^2}{2m} \frac{\Delta \sqrt{\rho}}{\sqrt{\rho}} \right), \quad (29)$$

$$\frac{d\vec{S}}{dt} = \frac{e}{mc} [\vec{S}\vec{H}] + \frac{1}{m} [\vec{S} \times \Delta \vec{S}] + \frac{1}{m\rho} \partial_\alpha \rho \partial^\alpha \vec{S}, \quad \rho = \psi^* \psi. \quad (30)$$

These macroquantum equations describe the motion of a non-relativistic quantum particle of mass m , charge e , spin $s = \hbar/2$ and density $\rho = \psi^* \psi$ in a weak electromagnetic field and follow from the Dirac equation [50-54] using the E. Madlung procedure [55]. In (29) includes the Lorentz force, the Stern-Gerlach force, which takes into account the interaction of the spin vector \vec{S} with the inhomogeneous magnetic field \vec{H} , and two vacuum forces that are independent of the charge and generated by the fields ψ and \vec{S} . Equations (30) include the Larmor moment, which creates a precession of the spin vector \vec{S} in the external magnetic field \vec{H} and two moments formed by the spatial distribution of the fields ψ and \vec{S} . The equations distinguish the magnetic field \vec{H} in ultra-weak electromagnetic fields, the Lorentz force, the Stern-Gerlach force, and the Larmor moment are vanishingly small and the particle motion at the macroscopic level is determined by the fields ψ and \vec{S} , i.e. *torsion fields*. It is particularly important to note that the forces and moments generated by the ψ and \vec{S} fields are associated with zero

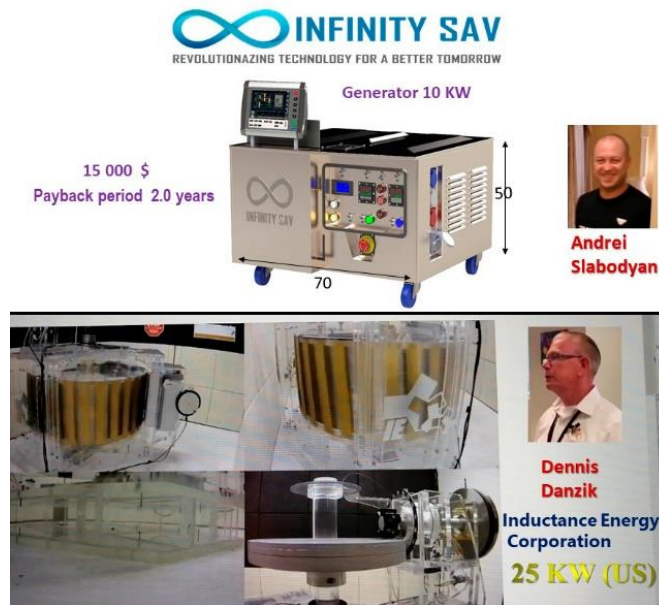


Fig. 6. Andrei Slobodyan's generator for 10 KW and D. Danzig's magnetic motor 25 KW

fluctuations in the Physical Vacuum, causing effects such as the Casimir effect in the macrocosm. These properties of equations (29), (30) make it possible to theoretically justify: a) the operation of torsion generators as generators of ψ and \vec{S} fields; b) a number of anomalous torsion experiments involving the ψ and \vec{S} fields. One of these experiments, brought to a commercial product, is the free energy generator of Andrey Slobodyan and the perpetual motion engine of the second kind of Dennis Danzig (Fig.6). These devices are based on a special kind of magnetic motor, in which, as experiments show, the stator and rotor magnets are located relative to each other so that their magnetic fields provide a constant rotation of the magnetic motor shaft. The D. Danzig magnetic engine was launched on May 15, 2019 and has been running non-stop since then, generating 25 KW of free energy 24 hours a day without consuming any fuel <https://earthengineline.com/>. A. Slobodyan's generator uses a magnetic motor whose shaft is connected to an electric motor that generates 10 KW of electricity. After starting the Slobodyan's generator works without using any external energy source, and its working time is limited only by the wear of the parts it is made of <https://infinitysav.com/>.

6.3. Torsion metallurgy

In Figs. 7.1 and 7.2 a laboratory installation of torsion technology for silumin smelting is presented. On the left in Fig.7.1 the Tamman melting furnace and samples of silumin melts (an alloy of aluminum and silicon) are visible. As a rule, for the impact of the Akimov torsion generator (Fig.7.2 on the right) several frequencies were used for the molten metal. In the

experiments shown in Fig. 7.1, 7.2, four different torsion generator frequencies were used, each of which has its own cone antenna (see Fig.7.2 on the right).



Fig. 7. At the top in Figs. 1 and 2, A.E. Akimov's installation for torsion melting of silumin; below in Figs. 3 and 4 is pictured the installation of the V. F. Panov group for torsion smelting of high-quality steel.

Fig. 8 shows two samples of silumin, melted before (Fig. 8 on the left) and after (Fig. 8 right) torsion treatment. Fig. 8 the difference in the quality of the silumin samples obtained is visible. Without special additives, silumin turns out to be porous and is not suitable for manufacturing parts (Fig. 8 on the left), for example, pistons for car engines, aircraft, etc.

The sample on the right in Fig. 8 is homogeneous and quite suitable for industrial use, yet obtained without the use of expensive additives.

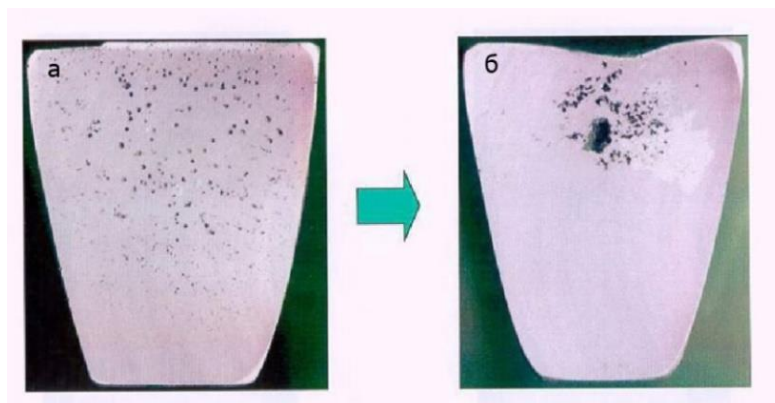


Fig.8. Molten silumin samples: left without torsion radiation; right under the action of torsion radiation

Fig. 7.3 at the bottom left shows a torsion bar that was used in commercial smelting by Professor V. F. Panov's group. In the works of V. F. Panov's group, a Kurapov torsion generator was used, which consumed only 50 watts of electricity, while the amount of melted metal with new properties varied from 70 to 400 tons!

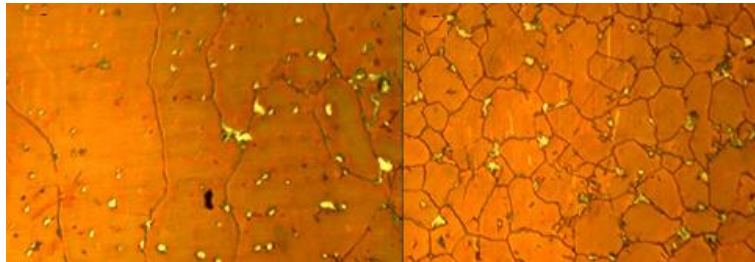


Fig. 9. Steel structure change: left structure without torsion radiation:
right structure change after exposure to torsion radiation

Fig. 9. shows two samples of molten steel before processing (left) and after processing (right) with a torsion generator [56]. The images show that the metal treated with torsion radiation has grain grinding, which leads to an increase in the PLA-resilience and hardness of the metal at the same time. Using torsion technology (during 2001-2009), 8500 tons of metal were smelted at metallurgical enterprises in Perm, Tula, Orsk, and others. The samples melted metal were investigated in the Physico-Technical Institute, Ural branch of the RAS (Izhevsk, Russia), the Institute of Engineering Science UB RAS (Ekaterinburg, Russia), FSUE "Center of Powder Materials Science" (Perm), etc. These studies demonstrate that the use of torsion technologies in metallurgy offers a number of benefits:

- avoids the cost of heat treatment and homogenization:
 - * reduce melting time;
 - * reduce the number of defects by improving the casting properties of steel;
- get a simple steel with characteristics of the doped alloy:
 - * save energy and gas;
 - * free up production space;
- in some cases, reduce the cost of production up to 2 times:
 - * reduce the production process;
- to increase the competitiveness of the product.

6.4 Torsion Psychophysics

All 7 levels of Reality, which are analytically described by the equations of the Physical Vacuum, are connected to a person in one way or another. This principle applies to all objects in the Universe. We find confirmation of this in an ever-increasing amount of experimental data, especially in the new section of physics called Psychophysics. Psychophysics studies the influence of human consciousness on



Fig.10. On the right, A. Antipov attracts three steel plates weighing 150 kg; on the left, M. Vasiliev attracts a wooden log weighing 30 kg

objects of different nature. The most striking example of this effect is biogravity. This psychophysical phenomenon demonstrates the ability of the human body to attract (or repel) objects of different physical nature. In the 90's, I met Anatoly Antipov in Penza, who attracted three metal plates with a total weight of 150 kg with his body, which adhered to his body one after the other (Fig.10).

On the left in Fig. 10 Mikhail Vasiliev demonstrates the attraction with his body of a log weighing about 30 kg. All this happened on the program of the first channel "Minute of Glory" and his performance was seen by millions of viewers http://www.youtube.com/watch?v=_T8x9XWeOws.

In 1989, while in Hungary, A. Akimov and I met the remarkable scientist George Egely. This man invented a device that demonstrates the phenomenon of telekinesis and is used to measure the life force of a person. The device is a light wheel with teeth made of thin foil (Fig. 11). The wheel rests on the needle and can rotate freely on the needle, which is built into the device body. When any person puts his hand (no matter whether it is right or left) near the wheel, it begins



Fig. 11. Egelywheel for measuring vitality

to rotate in the direction of the extended fingers, while the teeth of the wheel cross the light counter of revolutions and the value of the human life force is determined by its indications <http://www.youtube.com/watch?v=K0Oiikyfs4Q>. Different people have different telekinesis abilities. In the movie <http://www.youtube.com/watch?v=K0Oiikyfs4Q> telekinesis is shown at a distance of 1 to 1.5 meters, while the paper figure that was affected was covered with a glass cap. Chinese psychic John Chang is able to move objects, even situated at a distance of 5-6 meters away: <http://www.youtube.com/watch?v=gAJpKKCAib4>.

In ancient manuscripts, it is said that around the physical body of a person there is an aura formed by six thin fields. Apparently, the sixth etheric body, separated from the physical body at a distance 0.5-2-5 centimeters, participates in the psychophysical phenomenon of telekinesis, causing the wheel of Egely to rotate. Most likely, this same body is involved in such impressive phenomena as biogravitation (Fig.10) and pyrokinesis (Fig. 14).

There are various methods for observing a person's aura, including photographic ones. For Fig.12 shows photos taken at 2-3-minute intervals during Sahaja yoga meditation in England. In the first photo we see the leader of the Sahaja yogis Sri Mataji. The photos were taken with an ordinary camera by an ordinary person. The first photo shows the beginning of meditation. Seated on the bench on the left we see Shri Mataji.



Fig. 12. Changing the collective aura during Sahaja yoga meditation

The photos were taken with an ordinary camera by an ordinary person. The first photo shows the beginning of meditation. Shri Mataji is seated on the bench to the left. About 2-3 minutes after the beginning of the meditation, small halos appear above the heads of the meditators (photo 2), which are perceived by the camera as the effect of blurring the image. It is clearly visible that the bench in the photo remains focused. In photos 3 and 4, we observe a gradual increase in the elongation of the auras up and merging the auras of individual people into a single collective aura, the center of which is determined by the aura of Sri Mataji.

Interesting results of measuring the aura of man and plants are presented in the work of A.A. Andreev et al. [57] (Fig. 13). The measurements were obtained using the IgA-1 torsion field sensor, invented and patented by Yuri Kravchenko in Rovno (Ukraine) for the study of the human aura was created a technique that allows us to <http://www.iga1.ru/ugatu.html>

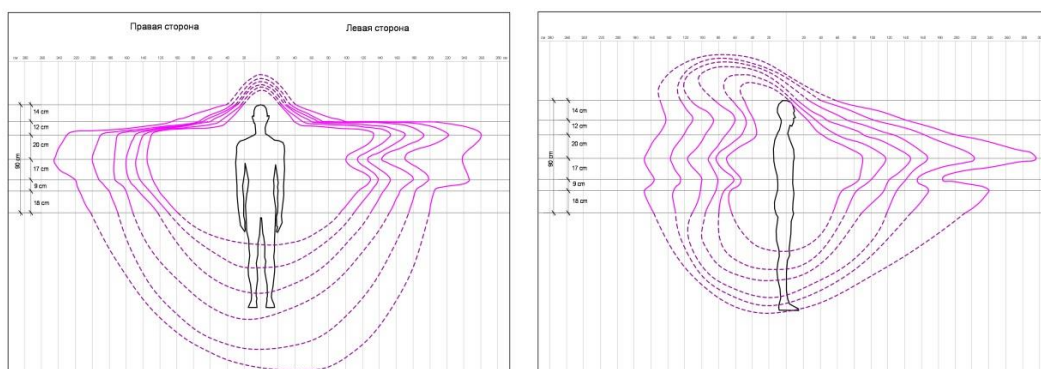


Fig. 13. Measuring a person's aura with the IGA-1 device an effective method has been developed

confidently measure up to 8 aura shells, though in reality there are more shells. The shells closest to the human body (less than 20 cm) were not measured. In all likelihood there are more shells at a radius over 7m, but they cannot yet be measured because of the limited technical capabilities of the equipment. Interestingly, it was possible to measure the aura of the energy double (copy) of a person [58]. In esoteric literature this structure is described as an invisible copy of the human body with all the organs, energy channels, chakras, etc. However, in esoteric sources, the aural twin faces in the same direction as the physical body of the person, while from measurements it is visible that it is deployed in relation to the human body at 180° (looking backward). The same result was obtained when measuring the aura of plants. In [58] shows a graph of the aura of a houseplant with the aura of a double plant above it. The authors of [58] note that the nature of the aura graphs of living objects suggests that there is a whole chain of duplicates that extends both up and down from the physical body. Perhaps this is how the connection of the living with the Cosmos (Absolute "Nothing") is manifested. It is also clear that the physical body is only one of the many manifestations of man in the material world [58]. During the experiments, it was observed that each shell behaves individually, increasing or decreasing independently of the others. It seems that each cell is responsible for its own process, or (and) corresponds to its own body (physical, etheric, astral, etc.). The whole Person is a kind of "matryoshka" (nested Russian doll) of various field layers appended to the physical body.

We know that the temperature of a body depends on the kinetic energy of the particles that make it up. Some people have the ability to ignite flammable substances without touching them (pyrokinesis phenomenon). According to their stories, to do this, they mentally focused on the object, after which the selected object was ignited. In the film, shown on the TNT TV program, Mikhail Raduga tells and shows how it is done http://www.youtube.com/watch?v=2jyZVYUD_k0. Polish teenager David Wasilewski demonstrates this phenomenon by lighting a match <http://www.youtube.com/watch?v=RIInh8NMudw>.



Fig.14. Demonstration of pyrokinesis: on the left, Mikhail Raduga sets fire to a napkin rolled up on a stand; on the right, David Vasilevsky sets fire to a match

None of the accepted physical theories can explain the observed psychophysical phenomena. According to the theory of Physical Vacuum, in this case, as in other phenomena of Psychophysics, we observe the interaction of complex gyroscopic systems that make up all objects, including humans. The simplest description of such systems is given by equations (29), (30).

Conclusion

Based on the results obtained in the theory of Physical vacuum, we can safely say that this theory solves the problem of a Unified Field Theory and is a new fundament theory that generalizes existing ones and significantly expands our understanding of the World around us. The main achievement of the Physical Vacuum theory developed by the author turns out to be the "lost field of view" of theorists - the field of Inertia, which is the third fundamental physical field, accessible to each of us in everyday sensations (the other two fields are gravitational and electromagnetic). Every day we feel the action of the field of inertia through the force of inertia, without realizing it. The practical use of the field of Inertia (mathematical term - torsion field) led to the development of nine torsion technologies: 1) spintronics; 2) energy; 3) materials science; 4) medicine; 5) transport; 6) communication; 7) Psychophysics; 8) agriculture; 9) mineral prospecting. Some of these technologies have been raised to the stature of a commercial product, while others are still under research pending commercial production. The difference between torsion technologies and existing ones is their exceptional efficiency at low material costs. Currently, torsion technologies are being developed not only in Russia, but also in other nations. For example, in South Korea, Dr. W.C. Lee has developed SorGen Technology, using torsion fields as information conduits.

The success of the new theory consists in the fact that it was not only the first to draw attention to the science of Psychophysics, but it also presented equations for describing these phenomena. Psychophysics is the youngest and most important (from the author's point of view) branch of physics, which asymptotically indicates the existence of a higher level of reality in Nature - "Absolute Nothing", which in the theory of Physical Vacuum is synonymous with God [59]. It can already be argued, based on experiments, that in order to study "divine physics" we will have to abandon the classical principle of causality and the speed of light c as the maximum speed.

I express my deep gratitude and appreciation to HJ Academy of Arts & Science, Dr. Douglas D.M. Joo, Dr. Jin Sung-Bae, Dr. Jin Choon Kim, Dr. Dinshaw Dadachanji, Dr. William Stoertz for the full support of my work and for the invitation to speak at the conference "God and Science."

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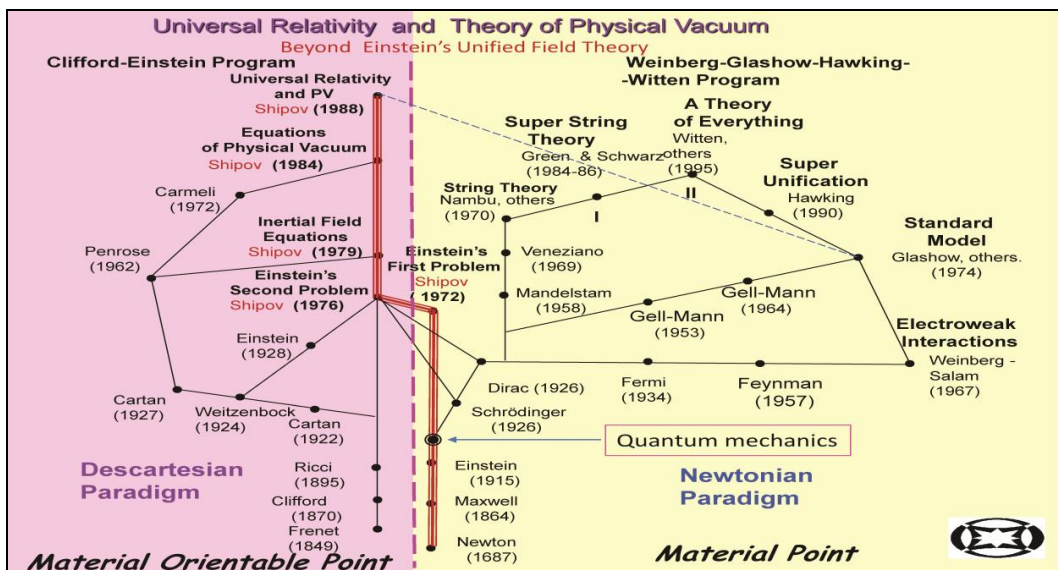
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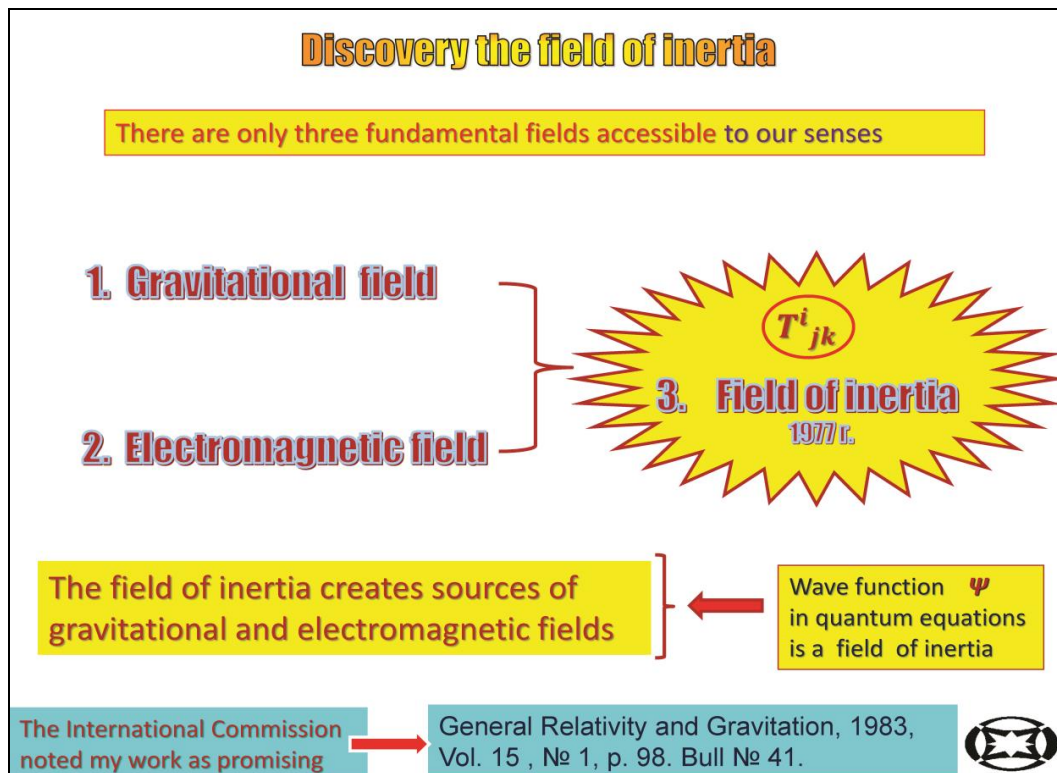
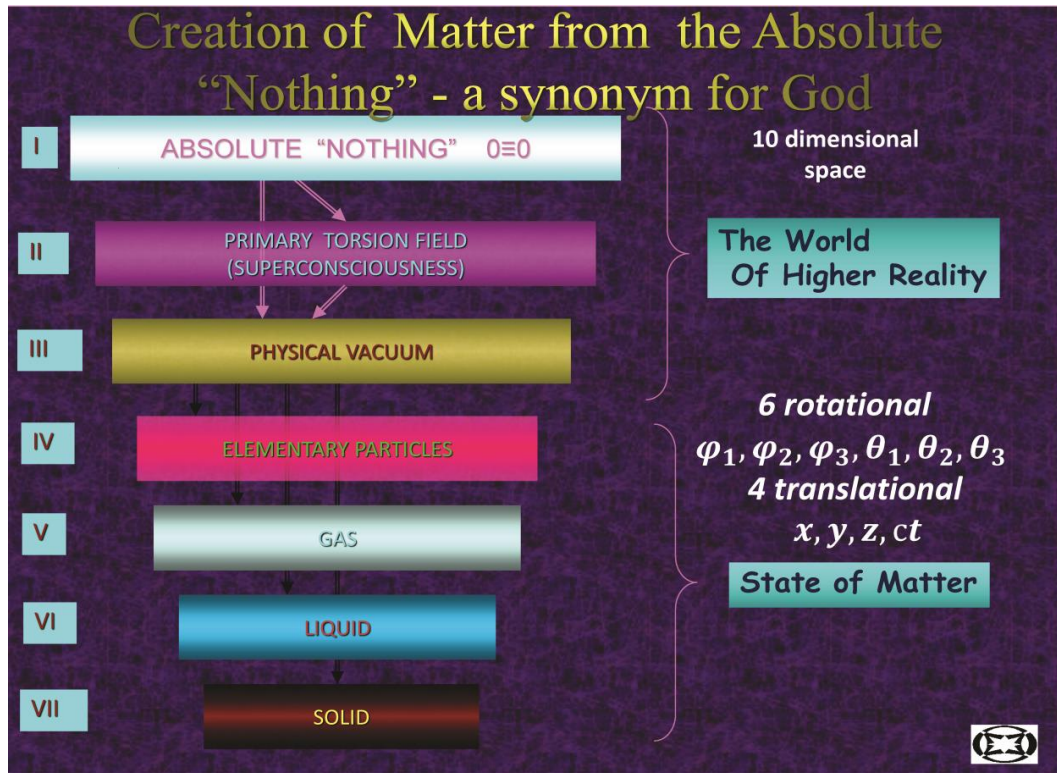
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New Scientific Paradigm and Breakthrough Technologies

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Discovering the dependence of mass on angular velocity

$$\mathcal{E} = m(\omega)c^2$$

← Shipov (1988)

Variable moment of inertia

$$\frac{d}{dt}(J(t)\vec{\omega}) = J(t)\frac{d}{dt}\vec{\omega} + \vec{\omega}\frac{d}{dt}J(t) = 0$$

Variable mass

$$\frac{d}{dt}(m(t)\vec{v}) = m(t)\frac{d}{dt}\vec{v} + \vec{v}\frac{d}{dt}m(t) = 0$$



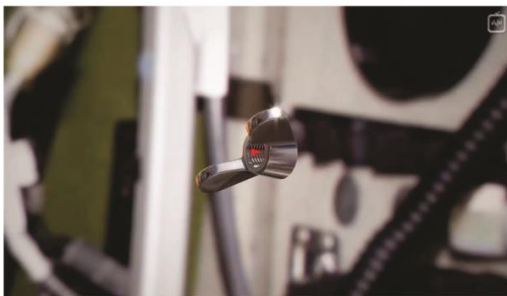
The dependence of inertial mass of the angular velocity

$$m(\Omega_{ik}) = \frac{2}{vc^2} \int (-g)^{1/2} \{ g^{jm} (\nabla_{[i} T_{j|m]}^i + T_{s[i} T_{j|m]}^s) \} dV$$

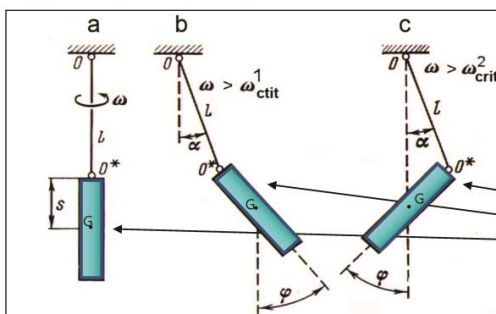


Quantization in macrophysics

The Janibekov effect (1985)



Quantization of the angular momentum of the nut in weightlessness



Quantization axis of rotation of the gyroscope

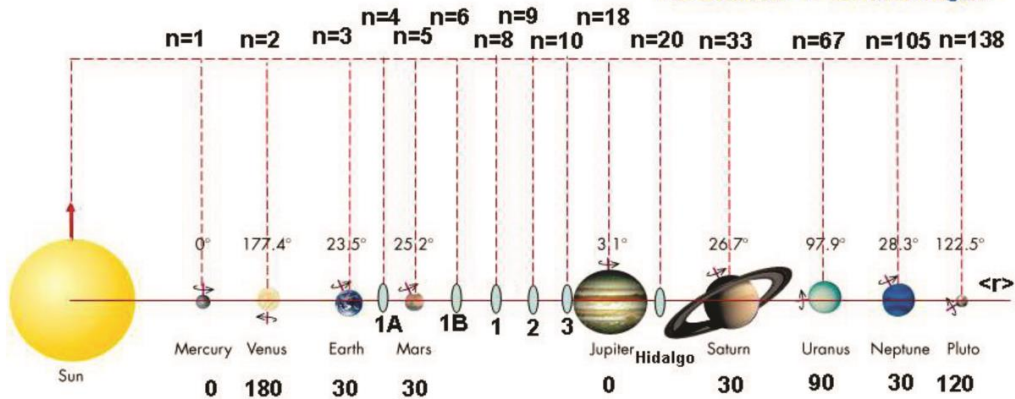
$$\omega > \omega_{crit}^1 > \omega_{crit}^2$$

Macro quantization in the Solar System

Quantization of average distances $\langle r \rangle$ in Solar System

$$\langle r \rangle = r_0 \left(n + \frac{1}{2} \right), \quad n = 1, 2, 3, \dots, \quad r_0 = 0.2851 \text{ AU}$$

The scale for $\langle r \rangle$ is not arranged.



Vacuum forces and vacuum moments of forces in the macro-quantum equations

Lorentz force **Tesla force** **Stern-Gerlach force** **Vacuum forces**

$$m \frac{dv_\alpha}{dt} = \left\{ e \vec{E} + \frac{e}{c} [\vec{v} \vec{H}] + \frac{1}{mc} \vec{J} \vec{S} \right\}_\alpha + \frac{e}{mc} S_\beta \partial_\alpha H_\beta + \frac{1}{m\rho} \partial_\beta (\rho \partial_\alpha S_\gamma \cdot \partial_\beta S_\gamma) + \partial_\alpha \left(\frac{\hbar^2}{2m} \frac{\Delta \sqrt{\rho}}{\sqrt{\rho}} \right),$$

Tesla scalar fields $\rho = \psi^* \psi$

$$S = S_E + S_H \quad S_E = -\frac{1}{c} \frac{\partial \phi}{\partial t} \quad S_H = -\text{div} \vec{A}$$

Moment of Bloch force **Moments of vacuum forces** **Spin-vector** \vec{S}

$$\frac{d\vec{S}}{dt} = \frac{e}{mc} [\vec{S} \vec{H}] + \frac{1}{m} [\vec{S} \times \Delta \vec{S}] + \frac{1}{m\rho} \partial_\alpha \rho \partial^\alpha \vec{S},$$

1. Special status of the magnetic field
2. For the first time an analytical description of Tesla fields is given

Biogravitation

Mikhail Vasiliev

Attracts wood, glass, stone weight of 30 kg



Anatoly Antipov

Anatoly attracts a metal weight of 150 kg with his body.



Pyrokinesis

David Vasilevsky



Mikhail Raduga

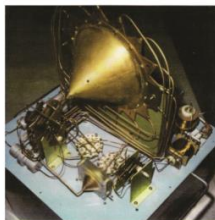


Torsion technologies

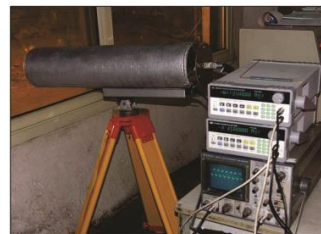
	● - Already on sale	🔥 - Brought to commercial product's	W - Scientific developments are underway
1. Spintronics	●	🔥	
2. Medicine	●	🔥	
3. Energy	●	🔥	
4. Materials science		🔥	
5. Geology		🔥	
6. Space transport			W
7. Communication			W
8. Agriculture			W
9. Psychophysics			W

Torsion generators

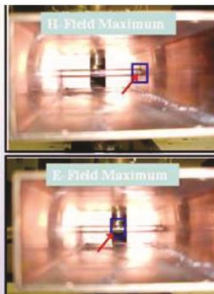
A. Akimov



S. Kurapov



R. Roy



J. Hutchison



Torsion detectors

V. Shkatov



A. Andreev



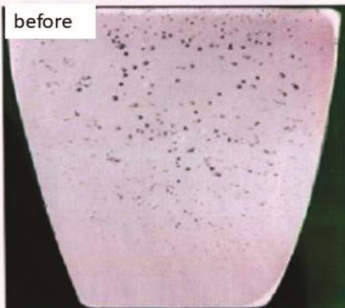
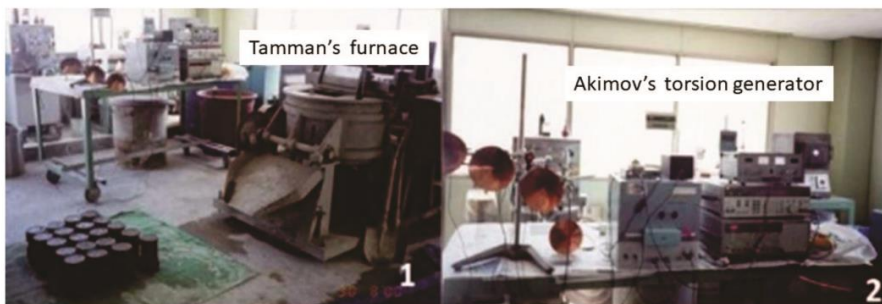
M. Krinker



Y. Kravchenko IGA-1

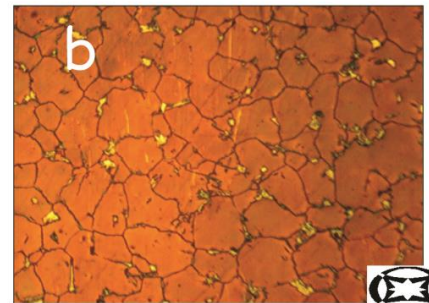
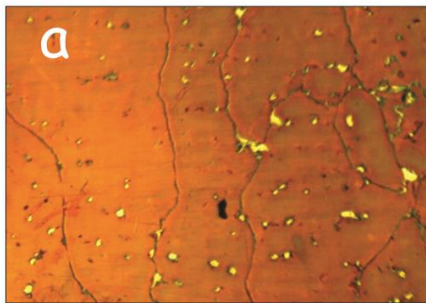
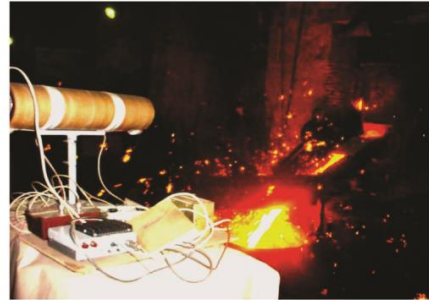


Torsion melting in South Korea (1999)



Torsion technology for steel and cast iron smelting

(Perm, Yekaterinburg, Tula, Orsk, 2004-2017)



Free Energy

INFINITY SAV
REVOLUTIONAZING TECHNOLOGY FOR A BETTER TOMORROW

Generator 10 KW

\$ 15 000
Payback period 2.0 years



**Andrei
Slabodyan**



The project “Radiation”

www.newpharm.com



Place a glass of water on the CD. In 30~60 minutes all the medical information is transferred to CD.



For the duration of a whole day, drink just this water, the amount you normally drink.



1. The new communication channel or new channel for transmitting of information

- *The highly penetrating radiation*
- *An interesting feature – so-called the "address attribute", when it is possible to influence on the structure of a substances non-locally or remotely.*

Several groups of scientists from Russia and Germany

Serge Kernbach, Vitaliy Zamsha, Yuri Kravchenko, Experimental Approach Towards Long-Range Interactions from 1.6 to 13798 km Distances in Bio-Hybrid Systems, NeuroQuantology, 14(3), p.456, 2016 doi:10.14704/nq.2016.14.3.917, 2

Akimov A, Tarasenko V and Talmachev S. Torsion communication - new system for telecommunication. Electrocommunication 2001

2. The opportunity to change the physical and chemical properties of substances. The ability to transfer the "address attribute" of the another substance to the investigated object.



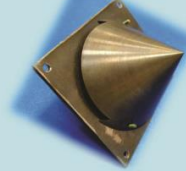
3. Creation of new types of generators and sensors of high-penetrating radiation.

4. The various regimes of exposure for different substances

- *Frequencies and geometrical parameters.*

It is necessary to strictly screen the object from the influence of acoustics, electromagnetic, thermal effects.

Only high-penetrating components are emitted in generators.

Classification of Works in Theoretical Physics

Generalization of theoretical basis of physics

Theories in Physics	Strategical	Tactical	Operational
I. Fundamental (Mechanics, Gravity, Electrodynamics, Theory of Physical Vacuum)	0 Newton, Maxwell, Einstein, Shipov.	1 Euler, Coulomb, Ampere, Faraday, Lorentz, Einstein, Shipov.	2 Lagrange, Hamilton, Abraham, Einstein, Poynting, Lenard Gubarev, Sidorov...
II. Semi fundamental (Quantum Mechanics, Quantum Electrodynamics)	3 Schrödinger, Heisenberg, Dirac.	4 Plank, Einstein, Bohr, de Broglie, Pauli, Born,	5 Schwinger, Lamb, Feynman, Glauber...
III. Phenomenological (Strong, Weak, Form Factors, Quarks, Superconductivity)	6. Van der Waals, Fermi, Hofstadter, Gell-Mann, Weinberg, Salam, Glashow, Lee, Yang	7. Yukawa, Hoft, Veltmann, Regge, Veneziano, Mandelshtam, Goldberg...	8. London, Bardeen, Cooper, Schrieffer, Landau, Perl, Wilson, Abrikosov, Leggett ...
IV. Unified Phenomenological (Electroweak, Electro-Strong, SM, Cosmology)	9. Alfen, Chandrasekhar Weinberg, Salam, Glashow, Higgs ...	10. Nambu, Kobayashi, Maskawa, Wheeler, Hawking, Oaks...	11. Hawking, Wheeler, Ivanenko, Zeldovich, Linde...
V. Semi Phenomenological (Gauge, Supersymmetries, Multidimensional)	12. Yang, Mills, Utiyama, Kibble, Kaluza, Klein, Carmeli...	13. Lord, Rubakov, Vladimirov, Frolov, Krechet...	14. Majority of theoreticians
VI. Academic (Superstring, Twistors)	15. E. Whitten, M. Green, B. Green, G. Schwartz... Penrose...	16. About 1000 names	17. Several thousands of names

The importance, degree of risk and reflections

0

Tesla Electrodynamics

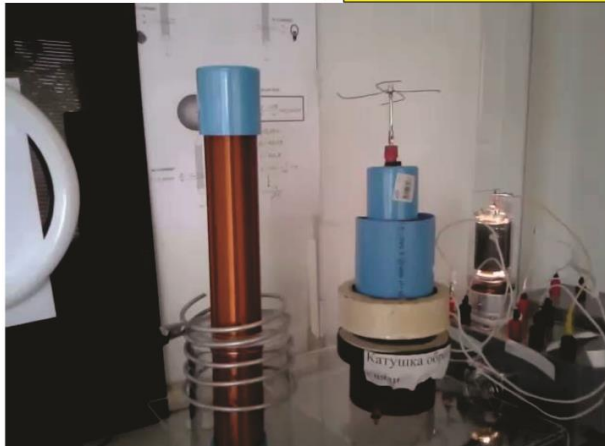
Tesla's scalar electromagnetic radiation

$$m \frac{d\vec{v}}{dt} = e\vec{E} + \frac{e}{c} [\vec{v}\vec{H}] - \frac{e}{c} S\vec{v} + \frac{2e^2}{3c^3} \ddot{\vec{v}}$$

$$Q(t) = Z(t)e$$

$$S = \frac{1}{rc} \cdot \frac{\partial Q(t)}{\partial t} = \frac{1}{c} \frac{\partial \phi(t)}{\partial t}$$

$$S = \frac{\omega V R}{rc} 4\pi\epsilon_0 \cos \omega t$$



Bruce de Palma experiment

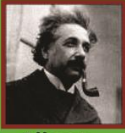
1970 г.



$$\frac{d^2 x^i}{ds^2} + \Gamma^i_{jk} \frac{dx^j}{ds} \frac{dx^k}{ds} + T^i_{jk} \frac{dx^j}{ds} \frac{dx^k}{ds} = 0$$



1. Geometrized nonlinear Heisenberg-like equations



Albert Einstein


$$\nabla_{\beta\dot{\chi}} l_{\alpha} = \nu o_{\alpha} o_{\beta} \bar{o}_{\dot{\chi}} - \lambda o_{\alpha} o_{\beta} \bar{l}_{\dot{\chi}} - \mu o_{\alpha} l_{\beta} \bar{o}_{\dot{\chi}} + \pi o_{\alpha} l_{\beta} \bar{l}_{\dot{\chi}} -$$

$$- \gamma l_{\alpha} o_{\beta} \bar{o}_{\dot{\chi}} + \alpha l_{\alpha} o_{\beta} \bar{l}_{\dot{\chi}} + \beta l_{\alpha} l_{\beta} \bar{o}_{\dot{\chi}} - \varepsilon l_{\alpha} l_{\beta} \bar{l}_{\dot{\chi}}, \quad (A_s^+ .1)$$


$$\nabla_{\beta\dot{\chi}} o_{\alpha} = \gamma o_{\alpha} o_{\beta} \bar{o}_{\dot{\chi}} - \alpha o_{\alpha} o_{\beta} \bar{l}_{\dot{\chi}} - \beta o_{\alpha} l_{\beta} \bar{o}_{\dot{\chi}} + \varepsilon o_{\alpha} l_{\beta} \bar{l}_{\dot{\chi}} -$$

$$- \tau l_{\alpha} o_{\beta} \bar{o}_{\dot{\chi}} + \rho l_{\alpha} o_{\beta} \bar{l}_{\dot{\chi}} + \sigma l_{\alpha} l_{\beta} \bar{o}_{\dot{\chi}} - \kappa l_{\alpha} l_{\beta} \bar{l}_{\dot{\chi}}, \quad (A_s^+ .2)$$

$$\alpha, \beta, \dots = 0, 1, \quad \dot{\chi}, \dot{\gamma}, \dots = \dot{0}, \dot{1},$$



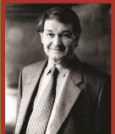
Werner Heisenberg



Elie Cartan


2. Geometrized Einstein-like equations

$$2\Phi_{AB\dot{C}\dot{D}} + \Lambda \varepsilon_{AB} \varepsilon_{\dot{C}\dot{D}} = \nu T_{A\dot{C}B\dot{D}}, \quad (B_s^+ .1)$$



Rodger Penrose

1988



Gennady Shipov


3. Geometrized Yang-Mills-like equations

$$C_{AB\dot{C}\dot{D}} - \partial_{\dot{C}\dot{D}} T_{AB} + \partial_{AB} T_{\dot{C}\dot{D}} + (T_{\dot{C}\dot{D}})_A^F T_{FB} + (T_{AB})_{\dot{C}}^F T_{F\dot{D}} -$$

$$- (T_{AB})_C^F T_{FD} - (T_{\dot{C}\dot{D}})^F_B T_{CF} - [T_{AB} T_{\dot{C}\dot{D}}] = -\nu J_{A\dot{C}B\dot{D}}, \quad (B_s^+ .2)$$

$$A, B, \dots = 0, 1, \quad \dot{B}, \dot{D}, \dots = \dot{0}, \dot{1}$$

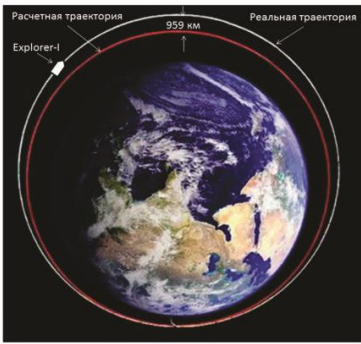
plus $\bar{A}_s^+, \bar{B}_s^+, \bar{A}_s^-, \bar{B}_s^-$ **equations.**



Moshe Carmeli

Anomalous secret experiment in gravodynamics (1958-2008 USA)

**50 year old secret
Wernher von Braun**



Рассчитанная траектория 959 км Реальная траектория

Explorer-I

$$\frac{d^2 x^i}{ds^2} + \Gamma_{jk}^i \frac{dx^j}{ds} \frac{dx^k}{ds} = 0 \quad \leftarrow \text{Einstein}$$


The first launch of Explorer I on 31 January 1958

Maximum deviation from the calculated trajectory of the satellite Explorer 956 km

Violation of the theory of gravity of Newton and Einstein when launching satellites Explorer I, II, III ...XI

Ракета Юпитер – С конфигурации IRBM

2-я и 3-я вращающиеся ступени



720 оборотов в минуту

основные характеристики

1 st STAGE	2 nd STAGE	3 rd STAGE
LENGTH m	13.10	10.00
DIAMETER m	3.05	2.44
WEIGHT kg	10000	1000
THRUST kg	10000	1000
ACCELERATION m/s²	100	100
NUMBER OF SEGMENTS	11 x 3	11 x 3
SPECIFIC IMPULSE OF BOOSTER, s	210	210
SPECIFIC IMPULSE OF SEGMENTS OF THE	210	210

Nonholonomic mechanics

Boosters 2 and 3 of the Jupiter missiles – gyroscopes that rotated with an angular speed 720 rpm

$$\frac{d^2 x^i}{ds^2} + \Gamma_{jk}^i \frac{dx^j}{ds} \frac{dx^k}{ds} + T_{jk}^i \frac{dx^j}{ds} \frac{dx^k}{ds} = 0$$

Theory of physical vacuum based on the General principle of relativity

Shipov G. // A theory of Physical Vacuum. A New Paradigm, M.: ST-Center, 1998. P. 312.

1. Geometrized Heisenberg equations

$$\nabla_{\beta\chi} \iota_{\alpha} = \nu o_{\alpha} o_{\beta} \bar{o}_{\chi} - \lambda o_{\alpha} o_{\beta} \bar{\iota}_{\chi} - \mu o_{\alpha} \iota_{\beta} \bar{o}_{\chi} + \pi o_{\alpha} \iota_{\beta} \bar{\iota}_{\chi} - \gamma \iota_{\alpha} o_{\beta} \bar{o}_{\chi} + \alpha \iota_{\alpha} o_{\beta} \bar{\iota}_{\chi} + \beta \iota_{\alpha} \iota_{\beta} \bar{o}_{\chi} - \varepsilon \iota_{\alpha} \iota_{\beta} \bar{\iota}_{\chi}, \quad (A_s^+, 1)$$

$$\nabla_{\beta\chi} o_{\alpha} = \gamma o_{\alpha} o_{\beta} \bar{o}_{\chi} - \alpha o_{\alpha} o_{\beta} \bar{\iota}_{\chi} - \beta o_{\alpha} \iota_{\beta} \bar{o}_{\chi} + \varepsilon o_{\alpha} \iota_{\beta} \bar{\iota}_{\chi} - \tau \iota_{\alpha} o_{\beta} \bar{o}_{\chi} + \rho \iota_{\alpha} o_{\beta} \bar{\iota}_{\chi} + \sigma \iota_{\alpha} \iota_{\beta} \bar{o}_{\chi} - \kappa \iota_{\alpha} \iota_{\beta} \bar{\iota}_{\chi}, \quad (A_s^+, 2)$$

$$\alpha, \beta, \dots = 0, 1, \quad \dot{\chi}, \dot{\gamma}, \dots = \dot{0}, \dot{1},$$

We always get a triplet of solutions covering all areas of space.

2. Geometrized Einstein equations

$$2\Phi_{AB\bar{C}\bar{D}} + \Lambda \varepsilon_{AB} \varepsilon_{\bar{C}\bar{D}} = \nu T_{A\bar{C}B\bar{D}}, \quad (B_s^+, 1)$$

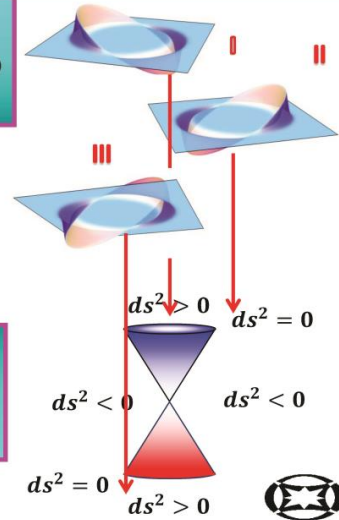
3. Geometrized Yang-Mills equations

$$C_{AB\bar{C}\bar{D}} - \partial_{\bar{C}\bar{D}} T_{AB} + \partial_{AB} T_{\bar{C}\bar{D}} + (T_{\bar{C}\bar{D}})_A^{\bar{F}} T_{\bar{F}\bar{B}} + (T_{\bar{D}\bar{C}})_B^{\bar{F}} T_{\bar{F}\bar{A}} - (T_{AB})_C^{\bar{F}} T_{\bar{F}\bar{D}} - (T_{\bar{B}\bar{A}})_D^{\bar{F}} T_{\bar{F}\bar{C}} - [T_{AB} T_{\bar{C}\bar{D}}] = -\nu J_{A\bar{C}B\bar{D}}, \quad (B_s^+, 2)$$

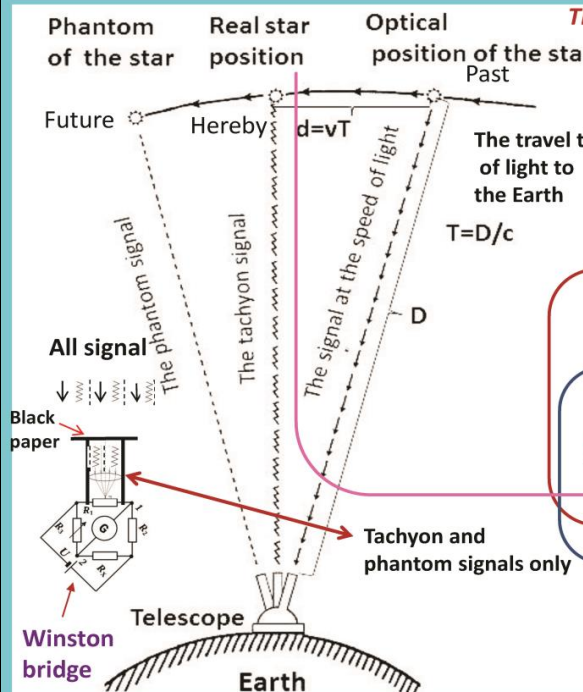
$$A, B, \dots = 0, 1, \quad \dot{B}, \dot{D}, \dots = \dot{0}, \dot{1}$$

plus equations

$$\bar{A}_s^+, \bar{B}_s^+, \bar{A}_s^-, \bar{B}_s^-, \bar{A}_s^-, \bar{B}_s^-.$$



Experimental detection Superluminal and Phantom signals



Three independent observatories in Russia

1. Kozyrev N. (Pulkovo Observatory (1976)).
2. Lavrentyev M. with co-workers RAS (Novosibirsk Observatory, 1990).
3. Akimov A., Pugach A., (Observatory of Crimea 1992).

1. The entrance aperture of the telescope was covered with black paper
2. Winston bridge was used to register the signal

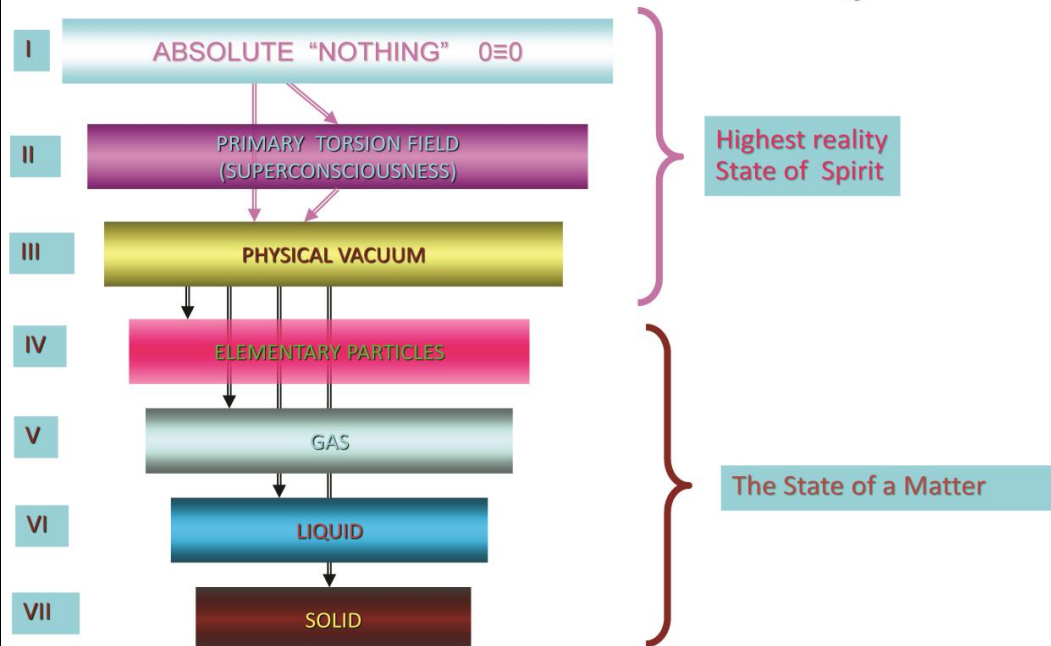
Properties of the long-range radiation

1. Superluminal signal
2. Phantom signal
3. High penetrating ability
4. Unclear physics of signal registration
5. The nature of the signals is unknown

Accelerated motion of GM under the action of inertia forces



The Seven Levels of the Reality



Biogravitation . 2

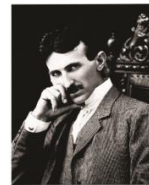
Anatoly Antipov

Anatoly attracts a weight of 150 kg with his body.



Tesla generator by car (1931)

80 HP 1800 rpm electric motor was installed on the clutch to the transmission. The energy that fed it was in a box that had dimensions of length 60 cm, width 30 cm and height 15 cm and no more power sources. The car went at a speed of up to 150 km/h..



N. Tesla



"Pierce-Arrow"

Tesla went week by Buffalo (New York) before journalists..

The press blamed N. Tesla in connection with "evil spirits"..

After that, N. Tesla destroyed generator!!

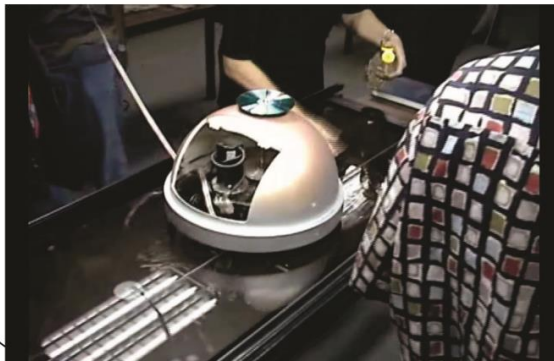


Experiment

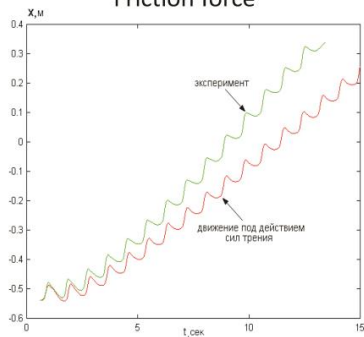
Equation of motion

$$\frac{dv_c}{dt} = \frac{dv}{dt} - B \frac{d}{dt} (\omega \sin \phi) = B \Phi \omega,$$

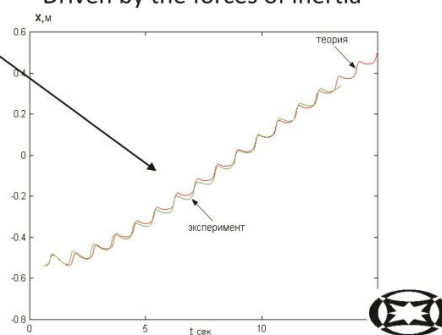
$$r \frac{d\omega}{dt} - \frac{dv}{dt} \sin \phi = \frac{L}{2mr} - \Phi v,$$



Friction force



Driven by the forces of inertia



Zwick / Roell



**ПЕРМСКИЙ
УНИВЕРСИТЕТ**
Классика будущего

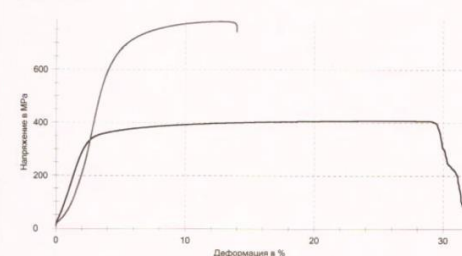
Протокол испытаний титановых пластин

Заказчик : Аппуков В.Н.
Материал : Титан
Оператор : Мерзляков А.Ф.
Данные машины : ZWICK Z-250, зав. № 178457, Датчик силы 250 кН, зав. № 178458
Преднагрузка : 200 N
Скорость испытания : 3 mm/min

Результаты испытаний:

Обозначение	№	Обозначение	σ_b	δ	S_0
			MPa	%	mm ²
1	Y.003	406.30	31.6	29.60	
2	Y.004	780.52	14.0	29.40	

График серии:



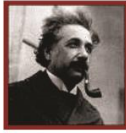
Растяжение_пластина.zs2

Мерзляков А.Ф. _____

20.01.20

Equations of Physical Vacuum (Shipov 1984)

1. Geometrized nonlinear Heisenberg-like equations



Albert Einstein



Elie Cartan



Gennady Shipov

$$\nabla_{\beta\dot{\chi}} l_{\alpha} = \nu o_{\alpha} o_{\beta} \bar{o}_{\dot{\chi}} - \lambda o_{\alpha} o_{\beta} \bar{l}_{\dot{\chi}} - \mu o_{\alpha} l_{\beta} \bar{o}_{\dot{\chi}} + \pi o_{\alpha} l_{\beta} \bar{l}_{\dot{\chi}} - \gamma l_{\alpha} o_{\beta} \bar{o}_{\dot{\chi}} + \alpha l_{\alpha} o_{\beta} \bar{l}_{\dot{\chi}} + \beta l_{\alpha} l_{\beta} \bar{o}_{\dot{\chi}} - \varepsilon l_{\alpha} l_{\beta} \bar{l}_{\dot{\chi}}, \quad (A_s^+ .1)$$

$$\nabla_{\beta\dot{\chi}} o_{\alpha} = \gamma o_{\alpha} o_{\beta} \bar{o}_{\dot{\chi}} - \alpha o_{\alpha} o_{\beta} \bar{l}_{\dot{\chi}} - \beta o_{\alpha} l_{\beta} \bar{o}_{\dot{\chi}} + \varepsilon o_{\alpha} l_{\beta} \bar{l}_{\dot{\chi}} - \tau l_{\alpha} o_{\beta} \bar{o}_{\dot{\chi}} + \rho l_{\alpha} o_{\beta} \bar{l}_{\dot{\chi}} + \sigma l_{\alpha} l_{\beta} \bar{o}_{\dot{\chi}} - \kappa l_{\alpha} l_{\beta} \bar{l}_{\dot{\chi}}, \quad (A_s^+ .2)$$

$$\alpha, \beta \dots = 0, 1, \quad \dot{\chi}, \dot{\gamma} \dots = \dot{0}, \dot{1},$$



Werner Heisenberg



Rodger Penrose



Moshe Carmeli



2. Geometrized Einstein-like equations

$$2\Phi_{AB\dot{C}\dot{D}} + \Lambda \varepsilon_{AB} \varepsilon_{\dot{C}\dot{D}} = \nu T_{A\dot{C}B\dot{D}}, \quad (B_s^+ .1)$$

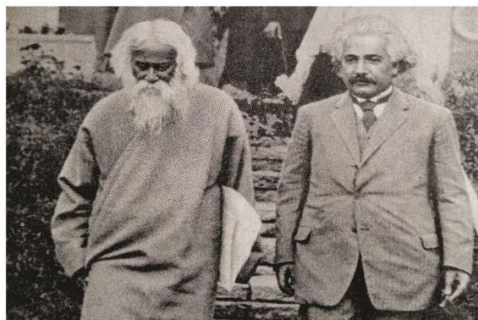
3. Geometrized Yang-Mills-like equations

$$C_{AB\dot{C}\dot{D}} - \partial_{\dot{C}\dot{D}} T_{AB} + \partial_{AB} T_{\dot{C}\dot{D}} + (T_{\dot{C}\dot{D}})_A^F T_{FB} + (T_{AB})_B^F T_{AF} - (T_{AB})_C^F T_{FD} - (T_{BA})_D^F T_{CF} - [T_{AB} T_{\dot{C}\dot{D}}] = -\nu J_{A\dot{C}B\dot{D}}, \quad (B_s^+ .2)$$

$$A, B \dots = 0, 1, \quad \dot{B}, \dot{D} \dots = \dot{0}, \dot{1}$$

So, God, does he really exist?

Rabindranath Tagore and Albert Einstein, met in Germany in 1930



Inderect proof
of the existence
of God



If God exists, we must abandon the classical principle of causality.

Einstein A. // Religion und Wissenschaft. Berliner Tageblatt, 11 Nov, 1930.

Physics: Violation of the classical principle of causality means the existence of superluminal velocities and the movement of time into the past .



Science, Peace and Security: My Personal Journey Spanning Half a Century

Dr. J. Martín Ramirez

Nebrija University, Spain

ABSTRACT

The present talk highlights how my long scientific life reflects the transdisciplinary approach for solving the complicated problems of the world and for the achievement of world peace, predicated in ICUS and PWPA meetings. My background including different university degrees - in natural and social sciences and in the humanities, has helped in my continuous effort to deepen my knowledge of the psychobiological bases of violence in different species and cultures (in the case of the humans), in how to deal with conflicts, especially with terrorism, and learning about new paradigms of the security, so necessary in the present world. Its fruits may be summed up in more than 50 International Conferences on Conflict and Aggression (CICAs) held in 22 countries of all the continents. The most significative one probably is the Seville Statement on Violence (SSV), signed in 1986 and endorsed and disseminated by the General Conference of UNESCO, three years later.

Against those who say that violence and war cannot be ended because they are part of our natural biology and, consequently, wrongly accepted by many as “normal”, the SSV offers a message of hope: violence is not biologically determined, and, consequently, it is avoidable. We humans, thus, are capable of cooperating and non-violence, and of achieving a world of true and lasting peace.

During the last part of the talk, I shall mention some examples of historically prominent scientists whose lives showed that science and spirituality are not incompatible.

INTRODUCTION

In one of those ICUS, in Atlanta (1987), I heard from its Founder that we need “multi-disciplinary research for solving the complicated problems of the world.” And this is what I’ve been trying to achieve throughout my more than half-century academic career.

My passion for the conciliation of the scientific and humanistic cultures from a multi-disciplinary approach comes from my early university days when I shared my studies in Medicine with Education and Law and later Security studies. I have been studying and living

abroad for most of my working life, thinking from a transdisciplinary perspective. This enabled me to teach Psychobiology to students of Medicine, Psychology and Education; and Risk and Conflict Management to students of Law and Security. This approach gives me an interdisciplinary approach towards those important problems of humanity. I feel like a citizen of the world.

For instance, my Ph.D. in Education, defended in 1968, more than fifty years ago, deals with the European Schools, a clear pragmatic example of intercultural and plurilingual coordination: a proposal of pre-university education in Europe (Ramírez, 1968).

During many years, my social psychological research has been focused towards cross-cultural studies, comparing attitudes and behavior in many different cultures (Europe, China, Iran, Japan, Southern Africa, Southern America, and Canada) (Fung, Li, Ramírez, et al. 2018; Ramírez, Andreu, Fujihara et. 2007). and deepening the study of human biology (Ramírez, 1978). This has probably been the reason why, in 2013, the World Academy of Art and Science elected me as a Fellow, as it's generously mentioned in my accreditation diploma: for my "eminence in the arts, the natural sciences, the social sciences, and the humanities." They want members who are able to "explore the social consequences and policy implications of knowledge."

I had also co-edited two books on cross-cultural studies (Ramírez & Richardson, 2001; Ramírez & Abad-Quintanal, 2018), addressing quite relevant issues on the general topic, from an interdisciplinary perspective. After some interesting and necessary descriptive considerations on the current status quo - the world order and some important facets of the current conflictive situation - we analyzed how the conflicts can be managed in a positive way within different cultures, without forgetting the need for legal and justice systems within cross-cultural conflicts.

CONTROL OF VIOLENCE

My main scientific thread during the last half a century has been research on aggression and violence from an interdisciplinary perspective. I have studied it in a variety of animal species, from birds to primates, and in many different cultures within the human species. This research has led me to learn how to live with conflict, being aware since the beginning that *Human Aggression is a multifaceted phenomenon*, for using the title of a book of the same name, which summarizes most of my research on human aggression [1996, 2003; Ramírez & Brain (1985, 1986; Ramírez, Hinde & Groebel, 1987)].

In the early '80s, I started to organize international conferences on conflict and aggression (CICAs), in order to disseminate scientific knowledge on the topic, based on my own research and that of my colleagues. During the first decade, it was co-organized by the International Society for Research on Aggression (ISRA) and the Chilean and Spanish branches of the Professors World Peace Academy (PWPA).

Let me do a digression in order to remember that, even if the founding meeting of PWPA took place in Seoul (1973) mainly with scholars from Japan and Korea, PWPA-International started at one of the ICUS I attended (Philadelphia, 1982, with a forum for peace studies known as Professors World Peace Academy, which was officially launched in December 1983 under the leadership of Morton Kaplan, efficiently assisted by Gordon L. Anderson, who is still the editor of its *International Journal for World Peace*, in which I have the honor of being member of its Editorial Council.

Up to now, more than two thousand scholars from many varied scientific disciplines and continents have participated in more than fifty CICAs, held in 22 countries from all the six continents. The most selected scientific contributions from these meetings have also been published in about fifty volumes. We also have a foundation (CICA International Foundation) aimed at disseminating the importance of knowing scientifically about conflict and aggression and applying it in a more pragmatical way, undertaking humanitarian projects related to the sustainability of our planet (see: cicainternational.org).

The most significant fruit of the CICAs probably is the Seville Statement on Violence (SSV), written by an international team of specialists from 13 countries and signed in May of 1986, the UN declared International Year of Peace. It was endorsed and disseminated by the 25th General Conference of UNESCO, three years later (Paris, November 16, 1989) for use in programs of education for peace and international understanding. Last October 2019, the 30th anniversary of this endorsement was celebrated in an ISRA meeting at Jerusalem.

About 200 million people were killed in the 20th century because of violent conflicts. Wrongly based in a nonexistent human propensity towards violence, many were accepting this as “normal.” We questioned this from a scientific approach. Did modern natural and social sciences know of any biological factors that were an insurmountable or a serious obstacle to the goal of world peace? After many decades of research on the psychobiological basis of violence, the 1986 SSV scientifically finally stated in five propositions that there is nothing in our biology which is an unsurmountable obstacle to violence and the abolition of war:

1. It is scientifically incorrect to say that we have inherited a tendency to make war from our animal ancestors.
2. It is scientifically incorrect to say that war or any other violent behavior is genetically programmed into our human nature.
3. It is scientifically incorrect to say that in the course of human evolution there has been a selection for aggressive behavior more than for other kinds of behavior.
4. It is scientifically incorrect to say that humans have a ‘violent brain’.
5. It is scientifically incorrect to say that war is caused by ‘instinct’ or any single motivation.

The statement concludes, thus, that we are not condemned to war and violence because of our biology. “Just as ‘wars begin in the minds of men’, peace also begins in our minds. *The same species who invented war is capable of inventing peace. The responsibility lies with each of us*” (Adams, 1991). That was an urgent and enduring much-needed message.

2. RESEARCH ON TERRORISM AND SECURITY

More recently, besides our usual periodic meetings on different specific topics related to aggression, we have been focusing more carefully on one of aggression’s most extreme expressions – terrorism – by co-organizing with the Society for Terrorism Research (STR), founded at a conference of the American Psychology Association (APA), after the horrible events of the 9/11. This led to seven joint CICA-STR conferences in a row (Antonius, Brown, Walters, Ramirez & Sinclair, 2010; Walters, Monaghan & Ramirez, 2014; see also Ramírez, Morrison & Kendal, 2014).

During this last decade, my research has centered on security and defense, at national and international Defense institutions: in the Spanish military university CESEDEN) and in the probably two more important American think-tanks – with tendencies towards the left and right, respectively: at International Security Program of the Kennedy School of Government, Harvard University; and at the Hoover Institution on War, Revolution and Peace, Stanford University). This has led me to focus most of the recent CICAs, jointly with the Nebrija-Santander Global Chair on Risks and Conflicts Management, on topics closely related to Security: security in critical infrastructures; cybersecurity; security and defense in Europe; and the security paradigm in the 21st century (Fernández, & Payá, 2016; Ramirez & Fernández, 2016; Ramírez & García-Segura, 2017; Ramirez & Biziewski, 2019).

At present, we are analyzing the present paradigm shift in Security. For this, we reflect on the trends in the development of mutual relations between main actors of the global game in order to answer the question about the need to modify strategic goals and ways of reaching them, ensuring secure development based on equal rights with global players, and coping at the same time with internal challenges concerning political cohesion, social and economic development as well as security.

We also analyze many challenges to security: on the positive side of the balance: artificial intelligence, robotics, biotechnology; on the other side, driving insecurity: social disintegration, global inequalities and corruption, uncontrolled mass migrations, and in particular forced refugees displacement, to mention just a few (Ramirez & Biziewski, in press).

Our initiative for security is perseverant because we see it as a solution to conflicts, which is our main present topic of research.

3. CONFLICT AND PUGWASH

Peace and Conflict Studies has emerged as a major academic discipline. My own university has its own Nebrija-Santander Chair on Risks and Conflict Management, focused mainly on Security issues and on a deepening in the knowledge of the Global Commons.

In 1985, I got a Professional Award on international conflicts by the East-West Center, established by the United States Congress (Ramírez & Sullivan, 1987); and ten years later I was appointed in Jerusalem Co-Chair of the UNESCO Committee on Science for Peace (Becker & Kouzminov, 1997).

Since three decades ago, I'm a member of the Nobel Peace laureated Pugwash Movement (1995), and chair of its Spanish National Group. As you may remember, we started on July 9, 1955, during the darkest days of the Cold War, with a manifesto delivered in London by Bertrand Russell, and later termed Russell-Einstein Manifesto. Two years later, in 1957, a conference of scientists, held in the small village of Pugwash, Nova Scotia was a catalyst for the formation of a unique and innovative transnational organization, under the name of the Pugwash Conferences on Science and World Affairs.

Once they had understood the dangers of nuclear weapons detonated in Japan, the main aim was the need to avoid war in the nuclear age. Today more than ever our attention and efforts are still dedicated to control the risks of a nuclear conflict and endorse any activity in favor of non-proliferation of any weapons of mass destruction. For instance, it would be convenient to elaborate an assessment on the nature of challenges for disarmament at the beginnings of the new decade, including the one within the Korean Peninsula.

But, without leaving aside our original effort related to the nuclear issue, in the face of conflicts in the world, we also foster creative discussions among scientists and policy makers on ways to increase the security of all sides and promote policy development that is cooperative and forward-looking. One of our primary missions is to 'tame' conflicts in the word, finding peaceful means for the settlement of all matters of dispute. In this context, we also have a long-standing tradition of promoting "dialogue across divides." Using the final words of the Manifesto, we have to renounce war as a mean to solve conflicts and "appeal as human beings to human beings: Remember your humanity and forget the rest."

4. SCIENCE AND RELIGION

As I already said at the beginning, I gave a talk called: *The Limits of Science and the Benefit of Unified Values* in a previous ICUS. There I recognized that universal truth is beyond the scope of scientific enterprise. Consequently, we all have to have faith, which, as you remember, means belief in what we don't know. Faith is a normal part of the human condition. Of course, believers, who harbor religious feelings or religious needs, have faith; but those that don't feel religious, also believe, for instance in the acceptance of science

because, otherwise, they would not accept any scientific evidence that they had not personally studied.

Saying that then, I would like to add that there are other ways of knowing than the vision of science. Most of us have to admit that our search for a sense to life needs something that may surpass the limits of science, ethics, philosophy, art... and theology, i.e. a transcendent view of the human being.

The history of science is full of contributions made by very devout Christians, who showed that, far from being a hindrance to scientific advances, Christianity has been an active and fundamental part of them. As examples of this interconnection between science and faith, I want to finish my intervention mentioning some historical models of important scientists who were also Catholic priests. They made transcendental contributions in different scientific disciplines in different centuries and in very different contexts (see: Del Villar, 2019).

4.1.Nicholaus Copernicus (1473 –1543): father of modern astronomy

Copernicus, *MikolajKopernik* in Polish, mastered very varied disciplines and developed the heliocentric theory, in which the planets and the Earth revolve around the Sun and where he defined the movement of rotation and translation of the Earth.

He graduated in Canon Law from the University of Ferrara (Italy) and also completed two Medicine courses in Padua. Thanks to these latest studies, he worked as a doctor for the various bishops who occupied the episcopal seat of Warmia (a country that is situated in present-day Poland). Pierre Gassendi, the author of the first biography of this Polish genius, even affirmed that Nicholas Copernicus practiced free medicine for the benefit of the poor.

- In the field of cartography, he produced maps of the central-eastern region of Europe in collaboration with the best cartographers of the time.
- In the field of diplomacy, he held important and varied positions of responsibility (administrator, chancellor, commissioner), performing a very remarkable work in conflict resolution.
- Also, in the field of economics, he also wrote documents on currency and inflation.
- But where he stood out especially is in astronomy, where he developed the heliocentric theory. With a rudimentary observatory and in very adverse weather conditions (the region where he lived has few days when the sky is completely clear), he calculated that the distance from the Moon to Earth was 60.3 times the radius of the Earth (in fact the average is 60.43, and the calculation of the great astronomer Ptolemy was 48). Historians place Copernicus's heliocentric model as the event that triggered the scientific revolution, that is, the rise of modern science.

But what you may not know is that he was a canon of the council of Frombork, the seat of the bishopric of Warmia. There are indications that suggest that he could also be a priest.

4.2. Marin Mersenne (1588 –1648): the father of the “scientific community”

The Frenchman Marin Mersenne was a monk of the congregation of minima, between the XVI-XVII centuries. He is famous for:

- Mersenne’s prime numbers, basic for mathematics;
- his research on the propagation of sound (he found that sound propagates at the same speed regardless of the source that originates it or the direction in which it propagates);
- his studies of musical theory (some consider him the father of acoustics);

In the sixteenth century a guild mentality that guarded technical secrets still prevailed and countries and professional associations did not reveal their discoveries; but that began to change with religious people like Mersenne, who was a friend of the philosopher and mathematician René Descartes and his study partner in the Jesuit *College of La Flèche*.

Mersenne exchanged their discoveries among scientists from various countries. The messages and ideas of Roberval, Descartes, Gassendi, and Pascal came to his cell, sometimes in person, sometimes in writing. In the beginning, his group was called *Academia Mersenne*, although when joining the Dupuy group it was renamed as *Academia Parisiensis*: scholars from different disciplines collaborating! In 1666, this led to Colbert creating an official scientific institution: the *Academie de Sciences de France*. That is why it is considered that Mersenne was the creator of the concept of “scientific community”: a work for the advancement of science, sharing discoveries, without national or trade secrets.

4.3. Nicholas Steno (1638-1686): geologist, anatomist, biomechanic... and blessed

Danish Nicholas Steno (*Niels Steensen*, in Danish) devoted himself fully to research, and in just ten years, he became an essential figure in three scientific disciplines:

- The first one is geology. Through his work *De Solido*, sought to understand how the land was formed and its evolution over the years; through this it was no longer necessary to resort to historical documents or the Bible to have this information: he enunciated the four fundamental laws of stratigraphy.
- The second science is anatomy. Europe was amazed by his skills in dissection, an art through which he revealed unknown aspects of the heart, brain, and glands. In a Parisian newspaper, it was written: “He exposes everything in such a vivid way that it remains only to wonder why all previous anatomists have escaped that.”:
 - he discovered the *ductus Stenonianus*, a duct of the mouth that leads from the parotid gland;

- he was the first scientist to observe the ovarian follicle; and in addition,
- he developed a model to explain the functioning of muscle biomechanics and was also the first to describe a heart malformation called Fallot tetralogy.
- The third science is biomechanics. He developed a model for the muscle that, 300 years after his death, was demonstrated correct through numerical computer calculation methods.

At the height of his career, he became Catholic and eventually became a priest and later a bishop and apostolic vicar in the Nordic countries in the seventeenth century. Thanks to this and his full involvement in this position, he was inducted into the blessed. In a letter, the Jesuit Atanasius Kircher, considered by some as the Leonardo Da Vinci of the seventeenth century, congratulated Steno for having converted to the faith.

4.4. Ruđer Bošković (1711-1787): the grandfather of atomic theory

Ruđer Bošković was an 18th-century Jesuit from the Republic of Ragusa. It was he who developed the first atomic theory with a certain foundation, which has inspired the discovery of the laws of electromagnetism and the theory of relativity.

- Although his writings belong to what is called speculative science (he did not have much evidence to support his claims), the truth is that the theory he developed in his book *Theoria Philosophiae Naturalis* stimulated great scientists who used his work as a reference: Volta, the inventor of the battery, Michael Faraday, father of electromagnetism and electrochemistry, and also Albert Einstein himself relied on it in his quest to create a unified field theory linking the electromagnetic and gravitational fields.
- Bošković was also an excellent astronomer: he devised a geometric method to determine the equator of a rotating planet from three observations of its surface and the orbit of a planet from three observations of its position.
- Also, his skills as an engineer-architect are clear in that he designed a system to save the dome of the Basilica of St. Peter in Rome from collapse.

4.5. René Just Haüy (1743-1822): the father of crystallography

René Just Haüy was a French priest, canon of Notre Dame. He lived in a very complicated political time, during which he demonstrated an attitude of a saint. He lost his pension and was imprisoned for refusing to swear an oath to the Constitution that was approved in the French Revolution. It was a miracle that he was not executed. His friends mediated to avoid it, but he refused to leave jail until the other priests and prisoners who shared a cell with him were released. He also did his best to save the father of chemistry, Antoine Lavoisier, who was finally guillotined.

In the scientific field, he became an authority thanks to his great four-volume work, *Traité de minéralogie*. In this work, among other things, there was a connection with the aforementioned Nicholas Steno, which defined a law according to which the crystals of any chemical or mineral species have a constant and characteristic angle of that species. Haüy, supported by that law, extended it by observing that the relationship between the parameters of all the faces of a crystal on the same axis always gives rational numbers that can be determined by three integers. He also developed a rigorous classification of minerals following a model in which he determined certain geometric characteristics and studied various properties such as the pyroelectricity of minerals. For all this, he is considered the father of crystallography.

Together with Lavoisier and other scientists he also defined the metric system and discovered the law of rationality of indices.

4.6. Gregor Johan Mendel (1822-1884): the father of genetics

This 19th-century Austrian Augustinian friar defined the fundamental laws of genetics.

- He is famous for establishing the fundamental laws of genetics, for whose elaboration he spent six years doing experiments. Only in the case of peas, he studied about three hundred thousand samples, which allowed him to obtain exact proportions that other scientists could not reach by doing less rigorous studies. Due to the novelty of their finding, the scientists of the time did not appreciate his work; It took 35 years to recognize that new science, genetics, had emerged.
- Curiously, Mendel died as a figure of recognized prestige in a completely different field, that of meteorology, where he published several works that pointed to the possibility of predicting weather statistically.
- Mendel was also a great beekeeper and studied the crossing of races from various regions of the world.

He became abbot of the monastery of Brno; many attended his funeral, including many of the poor around the monastery, whom Mendel had always treated kindly and sought to help them.

4.7. Georges Lemaître (1894-1966): the creator of the Big Bang theory

This Belgian priest, a member of the brotherhood of *Les amis de Jésus*, was the creator, at the beginning of the 20th century, of the Big Bang theory, based on the expansion of the universe from a point, against the idea established in his time that the universe was static.

- His contribution was to convince other scientists that the universe expands and has an origin, something that was very complicated. Albert Einstein, in his first encounter with Lemaître, told him that his mathematical calculations were good

but that his physics was abominable. However, over time they became great friends and Einstein recognized the great work of his colleague. Lemaître played a role in protecting Einstein from Nazism.

- Lemaître was also a master of mathematical calculation, and his contributions served to know more about cosmic rays or the concentration of matter in galaxies and nebulae.
- Due to his humility, his figure is less recognized than he should. For example, Hubble's law, which explains the expansion of the universe, was named for one who succeeded him by many years, even though Lemaître was the one who enunciated it for the first time. But the Belgian priest did not want to claim the authorship and only now, in 2018, the International Astronomical Union has decided to rename it as the Hubble-Lemaître law.

Lemaître was also a man of intense prayer (he celebrated Mass every day and spent an hour praying) and also worried about bringing God closer to the Chinese community living in Belgium.

As I hope the previous examples have shown that Science is not incompatible with God. The more you know more about Science, the more you are fascinated by divine work. On the contrary, as Benedict XVI reflected, "Science without God leads to Auschwitz."

5. FINAL REMARKS

Summarizing my scientific journey, for more than five decades I've dedicated myself to crafting solutions in response to the new changes developing and molding the world, in an unending effort to achieve peace through rules and institutions. More specifically, from the very beginning, I tried to enhance knowledge about the causes and control of aggressive behavior, first, and conflict resolution later.

- As a scientist, I have a truly interdisciplinary in academic formation and interests.
- As a citizen, I belong to multiple international and interdisciplinary societies, and help found some of them, like STR and CICA.
- In my personal life, I have traveled practically all over the planet, and lived in many countries, doing research and teaching at universities in Europe, America, and Australia.

So, who do I feel I am? I reckon, just a citizen of the world, an endless traveler, *ein Forschungsreisender*, linking interdisciplinarily communities, disciplines, cultures, people, languages..., with the main goal of reducing risk and conflict to humanity.

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Science, Peace and Security: My Personal Journey Spanning Half a Century

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SCIENCE, PEACE, AND SECURITY

My personal journey
spanning half a century

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2020 World Academic Peace Symposium
February 4-5, 20, Seoul

Themes of the presentation

1. Cross-cultural and interdisciplinary approaches
2. Control of Violence
3. Research on Terrorism and Security
4. Conflict and Pugwash
5. Science and Religion
6. Final remarks

Cross-cultural and interdisciplinary approaches

1. Multi-disciplinary studies: Medicine, Education, Law and Security



Stanford
University



HARVARD
UNIVERSITY

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Cross-cultural and interdisciplinary approaches

2. Teaching to students of Science and of Humanities

- teaching Psychobiology to students of:

- Medicine.
- Psychology.
- Odontology.
- Education .



- teaching Conflict Management to students of:

- Law and Security



UNIVERSIDAD
NEBRIJA

- International Ph.D. dissertations:



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Cross-cultural and interdisciplinary approaches

3. Cross-cultural research

- comparative education -> European Schools



- cross-cultural studies in many different cultures



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5

Control of violence

1. Aggression and violence

- interdisciplinary approach to aggression and violence teaches me how to live with conflicts

- in a variety of animal species, from birds to primates



- in the human species: in different cultures



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Control of Violence

2. International Conferences on Conflict and Aggression



- The CICA adventure began in the early 80's of the last century, embracing the idea of studying aggression from an interdisciplinary, comprehensive approach
- Seville was host of a row of ten CICAs, as well as of the 4th European Conference of the International Society for Research on Aggression (ISRA)
- in order to disseminate the research on aggression among scholars of other countries, the next CICAs were held in all six continents:
 - Chile and Colombia (three times) in South America
 - North America (Georgia, California, New England and Mexico)
 - South Africa and Zambia in Africa
 - in Asia (Sri Lanka, India and Turkey),
 - in New Zealand, in Oceania, and
 - in different European venues (Spain, Poland, Portugal, Hungary, Italy, Greek Islands, Bulgaria, British Isle, Slovakia...).
- CICA- STR in Miraflores de la Sierra, Zakopane, Belfast, Cartagena de Indias, Irvine & Burgas
- Since 2015, CICAs are mainly focused on Security and Defence, in Madrid, Cracow & Zilina

CICAs in the WORLD



Control of violence

2. CICA most significant fruit: Seville Statement on Violence (1986)

Context: Culture of violence

- During Cold War some politicians on both sides used their belief that war was highly likely to justify the manufacture and development of more nuclear weapons.
- Many young people are currently exposed to different degrees of violent behaviour from postnatal violent experiences, violent social models and violent forms of entertainment.
- War and violence continue to be pervasive throughout the world:
 - about 100 million people died from wars in the 20th century,
 - 12 times higher than the 19th century and 22 times greater than the 18th century.
- Many people see them as an inevitable consequence of human nature
 - it relieves the public from the responsibility of changing their own life style and
 - the authorities from changing an old, contradictory way of dealing with crime.

Control of violence

Seville Statement on Violence

A needed message of hope: to speak out on:

- how genes and environment influence on behavior,
- more specifically, how they influence on human aggression
 - how the biological and behavioral sciences could improve understanding of the violence in the world?
 - nothing in biology stands in the way of making a world without violence and war
 - peace is biologically possible
 - how to achieve peace

Control of violence

Core Ideas of the SSV

It is scientifically **incorrect** to say that:

1. "we have *inherited* a tendency to make *war* from our animal ancestors"
2. "war or any other violent behaviour is *genetically programmed* into our human nature"
3. "in the course of human *evolution* there has been a selection for aggressive behaviour more than for other kinds of behaviour"
4. "humans have a '*violent brain*'"
5. "war is caused by '*instinct*' or any single motivation"

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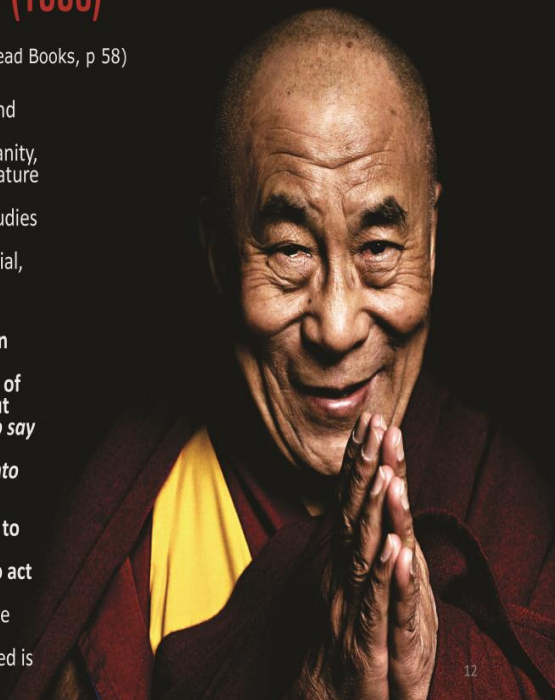
Dalai Lama's comments on the SSV (1998)

From THE ART OF HAPPINESS: A Handbook for Living,
By the Dalai Lama and Howard C. Cutler, M.D., 1998, Riverhead Books, p 58)

In recent years... the tide [of philosophical, psychological and other scientific evidence] appears to be turning on this [previously described] profoundly pessimistic view of humanity, coming closer to the Dalai Lama's view of our underlying nature as gentle and compassionate. Over the past two or three decades, there have been literally hundreds of scientific studies indicating that aggression is *not* essentially innate and that violent behavior is influenced by a variety of biological, social, situational, and environmental factors.

Perhaps the most comprehensive statement on the latest research was summarized in the 1986 Seville Statement on Violence that was drawn up and signed by twenty top scientists from around the world. In that statement, they of course acknowledged that violent behavior does occur, but they categorically stated that *it is scientifically incorrect to say that we have an inherited tendency to make war or act violently. That behavior is not genetically programmed into human nature.*

They said that even though we have the neural apparatus to act violently, that behavior isn't automatically activated. **There's nothing in our neurophysiology that compels us to act violently.** In examining the subject of human nature, most researchers in the field currently feel that fundamentally we have the potential to develop into gentle, caring people or violent, aggressive people; the impulse that gets emphasized is largely a matter of training



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Research on Terrorism and Security

Conferences organized

Seven joint CICA-STR:

- in Miraflores de la Sierra, Zakopane, Belfast, Cartagena de Indias, Irvine & Burgas

Recent CICAs are mainly focused on Security and Defence, in Madrid, Cracow & Zilina

1. THREATS AND RISKS TO CRITICAL INFRASTRUCTURES
2. MAPPING THE CYBERSPACE
3. CONFLICT AND CROSS-CULTURAL DIALOGUE
4. SECURITY FORUM, at Cracow (thrice)
5. THE FUTURE OF SECURITY AND DEFENCE OF EUROPE
6. FIRE PROTECTION & RESCUE SERVICES, at Zilina
7. TOWARDS A PARADIGM SHIFT IN SECURITY
8. GLOBAL COMMONS

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Research on Terrorism and Security

Research on Security and Defence: towards as a solution to conflicts

• Research in Spanish institutions:

- CESEDEN
- EuroDefense-Spain



• Research in international institutions:

- Kennedy School of Government, Harvard



HARVARD Kennedy School
JOHN F. KENNEDY SCHOOL OF GOVERNMENT

- Hoover Institution on War, Revolution and Peace, Stanford



HOOVER
INSTITUTION

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Conflict studies

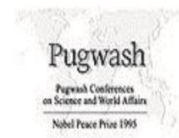
- Professional Award on international conflicts by the East-West Center in 1985



- Global Nebrija-Santander Chair on Risk and Conflict Management since 2014



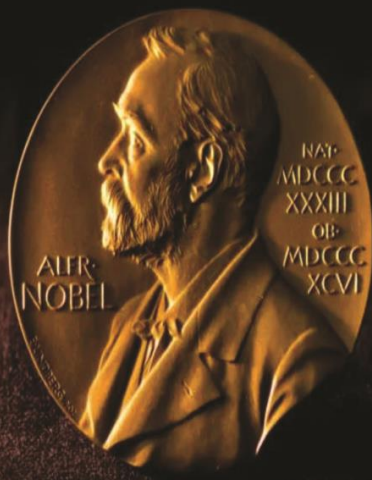
- Pugwash Conferences on Science and World Affairs since 1995



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Pugwash Movement

Peace Nobel 1995



Pugwash Conferences on Science and World Affairs

missions:

control the risks of nuclear conflicts -> disarmament (NPMW)
'taming' conflicts in the word, finding peaceful means for the settlement of disputes
promoting "dialogue across divides"

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Conflict resolution's Tracks

- Possible diplomatic channels:

by Joseph Montville (1981)

Track 1: public official efforts (official diplomacy)
tend to favour the state

Track 2: private independent advisers (informal initiatives by think-tanks and NGOs)
they can be more even-handed, with secretive contacts
safe space where ideas can be aired, and proposals tested in a more flexible way
can remain a mere talking-shop, with modest achievements,
but feeding a fresh idea or getting tantalisingly close to a breakthrough

Track 3: connects communities (f. inst. Sant'Egidio, women's representatives)

ensure that a peace effort is "inclusive, so that you don't have elite settlements"

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„Peace Ambassador“ in some areas of Conflict Personal Track 2

„Peace Ambassador“ of the International Peace Council (UPF)
Main aim: building personal relationships & preparing eventual solutions



1. Middle East:

a) Jerusalem Co-Chair of the UNESCO-HUJ Committee on Science for Peace, 1998, 2001, 2005 & 2010



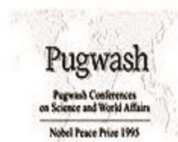
b) Ankara (Turkish General Staff) 2004, 2008



2. Both Chinas: Xiamen, 2006 & 2007



3. Korean Peninsula: different years



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Science and Religion

- search for a sense to life needs a transcendent view of the human being



- historical models of important scientists who were also Catholic priests

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Science and Religion

Nicholaus Copernicus: father of modern astronomy

Marin Mersenne: the father of the "scientific community"

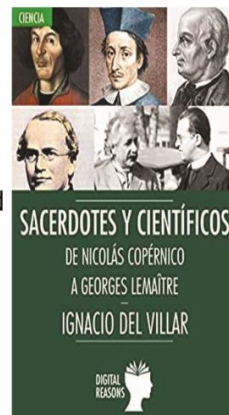
Nicholas Steno: geologist, anatomist, biomechanic ... and blessed

Ruđer Bošković: the grandfather of atomic theory

René Just Haüy: the father of crystallography

Gregor Johan Mendel: the father of genetics

Georges Lemaître: the creator of the Big Bang theory



Ignacio Del Villar Fernández,
Sacerdotes y científicos, 2019

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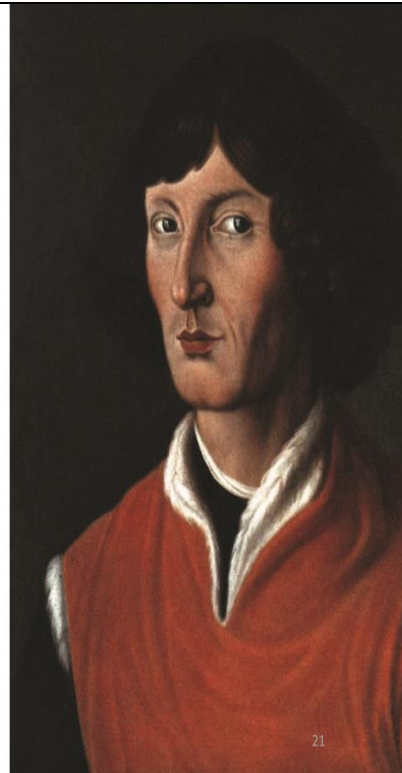
Science and Religion

Nicholaus Copernicus (1473 –1543)

Father of the Modern Astronomy

Polish, canon of the bishopric of Warmia

1. **Cartography** -> maps of the central-eastern Europe
2. **Diplomacy** -> remarkable work in conflict resolution
3. **Economics** -> wrote on currency and inflation
4. **Astronomy** -> the heliocentric theory
 - this event triggered the scientific revolution, that is, the rise of modern science
 - he calculated that the distance from the Moon to Earth was 60.3 times the radius of the Earth (in fact the average is 60.43), and the calculation of the great astronomer Ptolemy was 48).
 - Historians place Copernicus's heliocentric model as the event that triggered the scientific revolution, that is, the rise of modern science.



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Science and Religion

Marin Mersenne (1588 –1648)

Father of the "Scientific Community"

French, monk of the congregation of the *Minima*

1. **Mersenne's prime numbers**, basic for mathematics
2. **propagation of sound**, (he found that sound propagates at the same speed regardless of the source that originates it or the direction in which it propagates)
3. **musical theory** (some consider him the father of acoustics)



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Science and Religion

Nicholas Steno (1638 – 1686)

Geologist, anatomist, biomechanic

Dane, became Catholic, priest and later bishop ...and blessed!

1. **geology** -> evolution of the land over the years
(he enunciated the four fundamental laws of stratigraphy)
2. **anatomy** -> skills in dissection
revealing unknown aspects of heart, brain, and glands
 - he discovered the *ductus Stenonianus*, a duct of the mouth that starts from the parotid gland
 - the first scientist to observe the ovarian follicle
 - model to explain the functioning of muscle biomechanics
 - the first to describe a heart malformation, called Fallot tetralogy.
3. **biomechanics** -> a model for the muscle that, 300 years after his death, was demonstrated correct through numerical computer calculation methods



Science and Religion

Ruđer Bošković (1711-1787)

The Grandfather of Atomic Theory

Jesuit from the Republic of Ragusa

1. **first atomic theory** -> *Theoria Philosophiae Naturalis*

he inspired the laws of electromagnetism and the theory of relativity

2. **astronomer**

he devised a geometric method to determine the equator of a rotating planet and the orbit of a planet from 3 observations of its surface and its position

3. **engineer-architect**

he designed a system to save the collapse of dome of St. Peter's Basilica of in Rome



Science and Religion

René Just Haüy (1743-1822)

The father of Crystallography

French priest, canon of Notre Dame

1. crystallography -> *Traité de minéralogie* (4 volumes)

- observed that the relationship between the parameters of all the faces of a crystal on the same axis always gives rational numbers that can be determined by three integers
- developed a rigorous classification of minerals following a model in which he determined certain geometric characteristics and studied various properties, such as the pyroelectricity of minerals

2. defined the metric system and

3. discovered the law of rationality of indices with Lavoisier and other scientists



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Science and Religion

Gregor Johan Mendel (1822-1884)

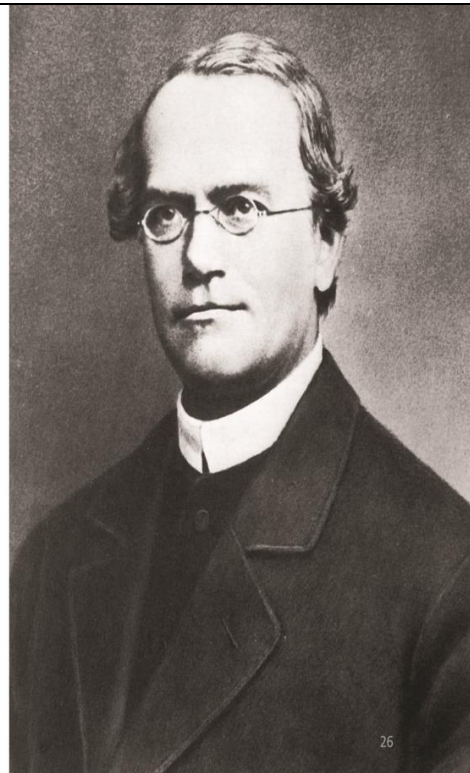
The father of genetics

Austrian, Augustinian friar

1. fundamental laws of genetics

2. meteorology -> possibility of predicting weather statistically

3. beekeeper -> studied crossing of races from various regions of the world



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Science and Religion

Georges Lemaître (1894-1966)

The creator of the Big Bang Theory

Belgian priest, member of the brotherhood
of *Les amis de Jésus*

1. convinced other scientists that **the universe expands** and has an origin
Einstein recognized his great work, mainly his mathematical calculations
2. **Hubble-Lemaître law**
the Hubble's law, which explains the expansion of the universe, was enunciated for the first time by Lemaître
3. master of **mathematical calculation**
contributions about cosmic rays or the concentration of matter in galaxies and nebules



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Final Remarks

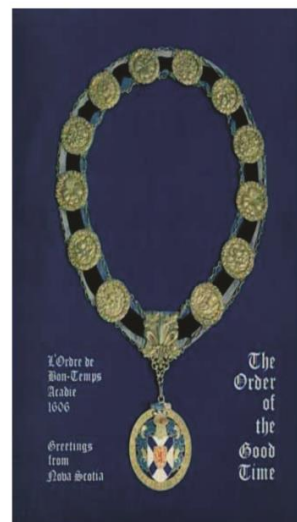
*Interdisciplinary scholar
a citizen of the world
einer Forshungreisender*



World Academy of Art & Science



Alexander von Humboldt
Stiftung/Foundation



L'Ordre de
Bon-Temps
Archer
1886

Greetings
from
Flora Beata

The
Order
of
the
Good
Time

Kamsahamnida!

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Science and Values: Overall View of Science and the Ideals of Human Civilization¹

Dr. Yoshiyuki Amemiya

Professor Emeritus, The University of Tokyo, Japan

Abstract

If you look at the truth from a certain aspect, you might lose the complete picture. The reason that modern science has progressed is because a certain aspect of the truth was taken and researched in depth. But as a result, the overall picture became unclear. Therefore, the integration of various sciences is again being called upon. A transdisciplinary approach among sciences is required for their further development. Cross-talk among the sciences, the arts and religions should be encouraged, to realize the ideals of human civilization.

The achievements of and methods in science are the major foundations for realizing the ideals of human civilization. It should be noted, however, that the achievements of science have been and will be incomplete. But we should keep on striving for completeness.

The universal viewpoint in science prevents human beings from falling into prejudice and self-righteousness. We need to respect and learn from nature much more. Every existence in nature is organically connected, being neither independent nor dependent, but interdependent. The same is true of every existence in the ideals of human civilization.

The official name of ICUS is International Conference on the Unity of Sciences, and as the name implies, its goal is to unite sciences. Now in the 20th century, we hear about 'Structuring knowledge' and 'Trans-disciplinary Science,' but ICUS started back in the 1970's already. The founder, Rev. Sun Myung Moon, said, "Without the unity of sciences, we cannot reach the truth or solve the problems that humanity and society carries." Therefore, it is a very far-reaching concept, and the fact that many experts of various fields gathered at this conference today is extremely significant.

¹ My presentation is titled "Science and Values: Overview of Science and the Ideals of Human Civilization." This topic is too broad in scope to be covered in 17 minutes, so I will try to focus on the essence.

If you look at the truth from a certain aspect, you might lose the complete picture, but for people to understand and pursue various things, taking things from a certain aspect is inevitable. The reason that modern science has progressed since René Descartes (1596-1650) and Francis Bacon (1561-1626) in the 16th and 17th centuries is because a certain aspect of the truth was taken and researched in depth.

But as a result, the overall picture became unclear and now we don't even know what the field next door is doing. Therefore, the integration of various sciences is again being called upon. In particular, when it comes to basic research, you might imagine it as digging deeply into one theme, but in order bring one's research to a deeper level, it is sometimes necessary to at some stage expand horizontally. I think profound research becomes possible when there is "interaction with different fields through horizontal development."

Figure 1 outlines the relationship between the ideals of human civilization and science. Human beings have two kinds of desires: "physical" and "spiritual." Physical desires seek physical values, namely, good food, good clothing and good shelter, which enable us to live in a comfortable physical environment. We feel happy when our physical desires are fulfilled in such an environment. This is what I call "material civilization."

However, we cannot be happy by satisfying only our physical desires. This is because we also have spiritual desires. They involve the three functions of intellect, emotion and volition. Each is paired with spiritual values, namely, truth, beauty and goodness. Science is the method, or means, by which the intellect seeks truth. Art is the arena in which emotions seek beauty. And religion is where volition, or the will, seeks goodness. We feel happy when spiritual desires are fulfilled in an environment in which truth, beauty and goodness abound and develop in harmony. I call this type of environment "spiritual civilization."

I would define the ideals of human civilization as states in which both the material and spiritual civilizations are realized. This paper focuses on science and science-driven technology in relation to the ideals of human civilization.

Over the course of its development, science has been divided into many different disciplines, which may be placed in three major categories: natural science, human science and social science (Figure 2). Natural science includes the disciplines of physics, chemistry, biology and more. In addition, each of these disciplines is further divided into specialized subdisciplines.

Figure 3 explains the development of natural science and science-driven technology. Recall that science is a method by which human beings overcome ignorance and seek truth. History includes geniuses who have made major breakthroughs in science, such as Aristotle, Maxwell, Newton and Einstein. Nonetheless, we remain a long way off from knowing the entirety of truth. There are many things yet to be investigated and understood.

The right side of Figure 3 shows the process of science-driven technology, overcoming our primitive state and realizing an advanced and comfortable material civilization. I will focus on natural science, shown on the left side of the figure.

Since ancient times, human beings have struggled to find answers to three major questions: First, “How did the universe begin?” Second, “What are the elements that compose the universe?” Third, “What is the origin of life?” These three questions have not yet been answered, indicating that we are still far from understanding the whole truth.

Figure 4 shows the 13.8-billion-year history of the universe, which started with the Big Bang expansion, in relation to fundamental physical forces. In our understanding, there are four fundamental physical forces in the universe. They are the electromagnetic force, weak force, strong force and gravitational force. The electromagnetic force is very familiar to us: it is widely utilized in our daily life in the form of many electric and magnetic devices. Another force familiar to us is the gravitational force, which governs the movement of planets as well as the falling motion of things on earth. The two remaining forces — weak and strong — are not familiar to us because they function in a world much smaller than even atoms. However, they play very important roles, and our universe would not exist without them.

At the frontier of science, it is assumed that in the beginning, the universe was far smaller than even the size of an atom. In the beginning, the temperature of the universe was one trillion multiplied by one trillion multiplied by 100 million degrees Celsius — an unimaginable number. In such a world, the four different forces were presumably unified as one force and ruled by one common law. This assumption, however, has not been experimentally tested. It requires both experimental and theoretical research. This question is closely related to the question of how the universe began, which is why it is so important.

The second question is, what are the elements that compose the universe? Until about the end of the twentieth century, we thought that the universe was composed of atoms, light and nothing else. Here, “atoms” means all kinds of elements, which are listed in the Periodic Table of Elements. In the twenty-first century, however, we have come to realize that some things of unknown composition, called “dark energy” and “dark matter,” are the main constituents of the universe (Figure 5).

The atoms that we know compose only 4.6% of the universe. Without the premise of the existence of dark energy, we cannot explain the experimentally observed fact that the universe is expanding at an accelerating speed. At the same time, we know that the revolving galaxy in which our solar system exists would be disintegrated by the centrifugal force, so it is assumed that dark matter must exist. The quantities estimated amount to approximately 70% and 25% of the whole universe, respectively. However, because they are not visible in light, their reality has hardly been understood at all. That is to say, we don’t understand what elements compose most of our universe.

The third question is, what is the origin of life? Owing to time constraints, I will not go into this subject. Nevertheless, it is no exaggeration to say that we are still not able to answer this question at all.

In spite of the remarkable advancements in the natural sciences, we have not reached the stage where we can answer the basic questions that people in primitive ages must have

wondered about. This reminds us of a statement by Sir Isaac Newton as follows: “I do not know what I may appear to the world, but to myself I seem to have been only like a boy playing on the seashore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me.” This is science!

Next, let me talk about scientific methodology. The primary method in the scientific pursuit of truth involves observation and rationality (Figure 6). Through observation, we can discover certain features, patterns and regularities inherent in the natural world. Then, by applying rationality, we can set up a hypothesis for a law that may explain them. In general, scientific truth is a hypothesis requiring the following conditions: Does the hypothesis have any contradictions with the current knowledge system? Is the new hypothesis “beautiful” and capable of answering many essential questions with “simple” assumptions? In science, a set of hypotheses is developed in a spiral fashion, producing a law that does not have contradictions. Accordingly, scientific truth develops with history. In addition to observation and rationality, human inspirations play a critical role. Methods of observation and rationality may facilitate the process of ascertaining whether a particular inspiration is reasonable or not.

One of the crucial aspects of science is that it offers a universal viewpoint that can prevent human beings from falling into prejudice and self-righteousness (Figure 7). Scientific laws and equations are acceptable if they prove valuable even when described in different coordinate systems. Examples include: Newton’s laws of motion on the macroscopic scale, the laws of quantum physics on the microscopic scale, Maxwell’s equations in electrodynamics and Einstein’s theory of relativity. All of them have been accepted because they are valid in different coordinate systems.

Sometimes the same thing looks different from a different viewpoint. For example, Figure 7 has a picture that looks like an old lady, but if you turn the picture upside down it looks like a young lady. This has something to do with observation. Certain laws would be more universally acceptable if they are found to be true through observation even from different points of view. This relates to my earlier argument that consistency of observations from various viewpoints and rationality are crucial. I don’t deny an individual’s “personal viewpoints.” However, in human society, prejudice and self-righteousness based on an illusion from a particular viewpoint could cause strife, even with no malicious intent. This is why the universal viewpoint in science is vitally important to realize the ideals of human civilization. Human conflicts occur when people insist on their own viewpoints, but science effectively attempts to unify different ideas, offering precious suggestions as we pursue the ideals of human civilization.

Next I will touch upon “common assumptions” in science. Somewhat akin to hypothesis, they may be termed as “common assumptions” in science as they had proved true after verification from various angles. Some examples of “common assumptions” in science are as follows: the law of energy conservation, the law of entropy increase, causality, constant velocity of light in a vacuum under an inertial frame of reference and so on. Although, there

remains the possibility that these common assumptions in science will be updated in the future, they have played significant roles in the pursuit of truth.

Let me briefly address the issue of causality and correlation. Science has a role to clarify the relationship between two different concepts. While somewhat akin to each other, the concepts of causality and correlation refer to different relationships. In causality, A causes the effect B. In a correlation between A and B, A does not cause B, but both are the effect of unknown X, which may turn out to be the true cause of A and B. Many people confuse causation with correlation; we need to understand that they are two different concepts. For example, there is still a debate whether the rising level of carbon dioxide in the atmosphere is the very cause of global warming. Some people think that both phenomena are the result of some unknown factors. Do we know if it is a causal relationship or a correlation? Whichever it is, we need to reduce the consumption of oil and coal, because their abundance in the earth is limited.

Now consider some solutions to the energy problem. By applying science and science-driven technology, we have the possibility of solving the energy problem through the development of new devices. They include devices to produce energy, transport energy, store energy and save energy (Figure 8).

Today, energy production relies mainly on hydropower stations, thermal power stations and nuclear power stations. However, with the development of new technologies in the future, we could rely on artificial photosynthesis systems, photovoltaic power stations, or thermoelectric devices, without producing carbon dioxide.

New devices may be developed to transport energy, including high-temperature superconductivity and advanced methods using ammonia, hydrogen and hydrocarbons as energy carriers. As for devices to store energy, second batteries and thermal storage devices are being developed rapidly.

Regarding new, energy-saving devices, research and development of fuel batteries are being intensively carried out, to replace car engines with electric motors. The LED (light-emitting diode) is also an innovative device to replace the conventional light bulb.

My research is related to the development of energy-saving vehicle tires. In the photograph in Figure 8 (bottom left corner), high temperatures are indicated by the red areas, which are wasting energy. With energy-saving tires, we can greatly reduce fuel consumption.

Figure 9 shows the rates of resistance when a vehicle is running, including wind resistance, mechanical resistance of the entire vehicle and resistance from the road's surface against rolling tires. Energy loss associated with the rolling resistance of the tires amounts to approximately 20%. If we could reduce the tires' rolling resistance, we would reduce fuel consumption.

Vehicle tires are made of rubber, whose original color is white. However, almost all tires today are black (Figure 10). The reason is that carbon powders are added to tires in order to

increase their strength. Without carbon powders, tires would be like rubber erasers that fall to bits by friction. Another reason for adding carbon powders is to achieve vital but seemingly contradictory capacities necessary for tires, namely, to enhance fuel efficiency by reducing the tires' rolling resistance as well as to enforce their gripping power (traction) when the brakes are applied.

The lower part of Figure 10 shows a microscopic image of the kind of carbon powders mixed into tires. Using a high-brilliance synchrotron radiation source and the X-ray diffraction method, we have investigated the relationship between the performance of the tires and the carbon powders' clump sizes and mixture ratio. By analyzing the outcome of the experiment, we have succeeded in illuminating the sizes of carbon powders and their mixture ratio that would best enhance fuel efficiency and the gripping power of the tires.

For this research, we used the facilities shown in Figure 11: an "X-ray Free Electron Laser Facility," a 700-meter-long SACLA and a high-brilliance synchrotron X-ray radiation source, SPring-8, located in Japan.

The result of our research is shown in Figure 12. On the left is a conventional vehicle tire and on the right is the new product being developed based on our research. The energy loss from the tires' rolling resistance has been dramatically reduced through our research, which is being done in collaboration with Sumitomo Rubber Industries, Ltd. This achievement may be one small step, but it will be one giant leap for mankind if these types of small steps are integrated through various research activities.

Finally, looking back at Figure 1 regarding the relationship between science and the ideals of human civilization, we can add and emphasize the following points (Figure 13):

- Unified human intelligence is needed.
- Science is always incomplete, but we must strive for its completion.

To summarize, allow me to make the following points:

- If you look at the truth from a certain aspect, you might lose the complete picture. The integration of various sciences is again being called upon.
- The achievements of and methods in science are the major foundations for realizing the ideals of human civilization. It should be noted, however, that the achievements of science have been and will be incomplete. But we should keep on striving for completeness.
- The universal viewpoint in science prevents human beings from falling into prejudice and self-righteousness.
- Science-driven technology has two-sided effects.
- We need to respect and learn from nature much more. Every existence in nature is organically connected, being neither independent nor dependent, but interdependent. The same is true of every existence in the ideals of human civilization.
- A transdisciplinary approach among sciences is required for their further development.

- Cross-talk among the sciences, the arts and religions should be encouraged, to realize the ideals of human civilization.

Albert Einstein famously said, “Science without religion is lame, religion without science is blind.” The development of science is important, but in this age, more important is human development — that is, the development of human beings themselves (Figure 14). We, human beings, need to grow up to be “true human beings” who have the capability to govern ourselves and the universe through the well-balanced development of science, art and religion. A bright future definitely depends on this development.

Thank you for your attention.

Science and Values: Overall View of Science and the Ideals of Human Civilization

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Overall View of Science, and the Ideals of Human Civilization

The 23rd International Conference on the Unity of the Sciences
(ICUS)

Yoshiyuki Amemiya, Ph.D.
The University of Tokyo

Contents of My Talk

Figure 1

1. Science and the Ideals of Human Civilization
2. Natural Science and Technology
 - Achievements
 - Incompleteness: Toward Further Development
3. Method, Viewpoint and Common Assumptions in Science
4. Toward Solution of Energy Problem
 - My Research: Development of Energy-saving Vehicle Tires
5. Summary

Figure 2

Science and the Ideals of Human Civilization

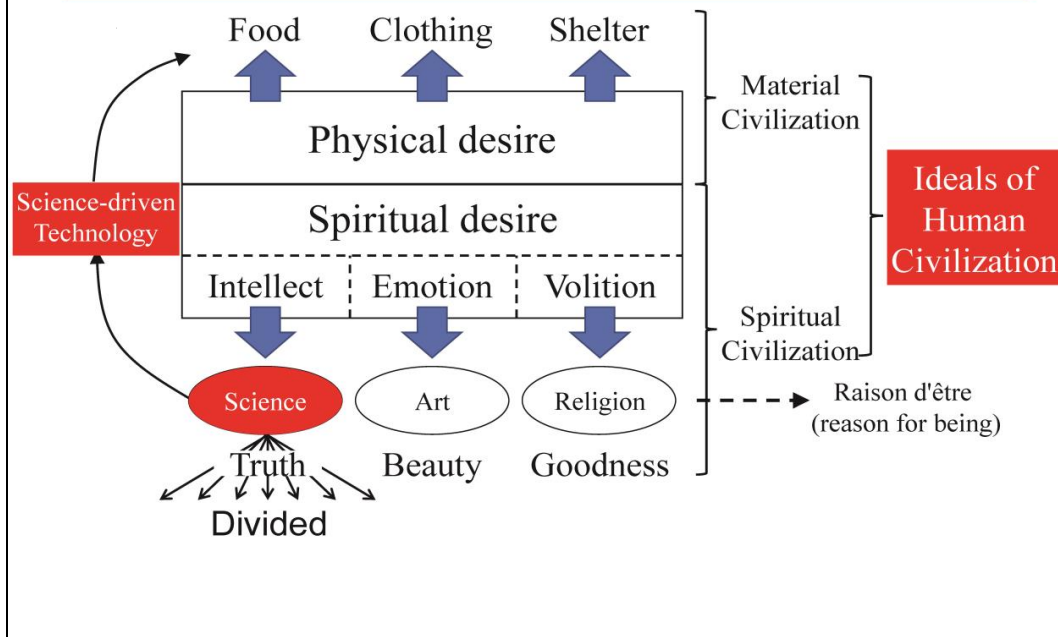
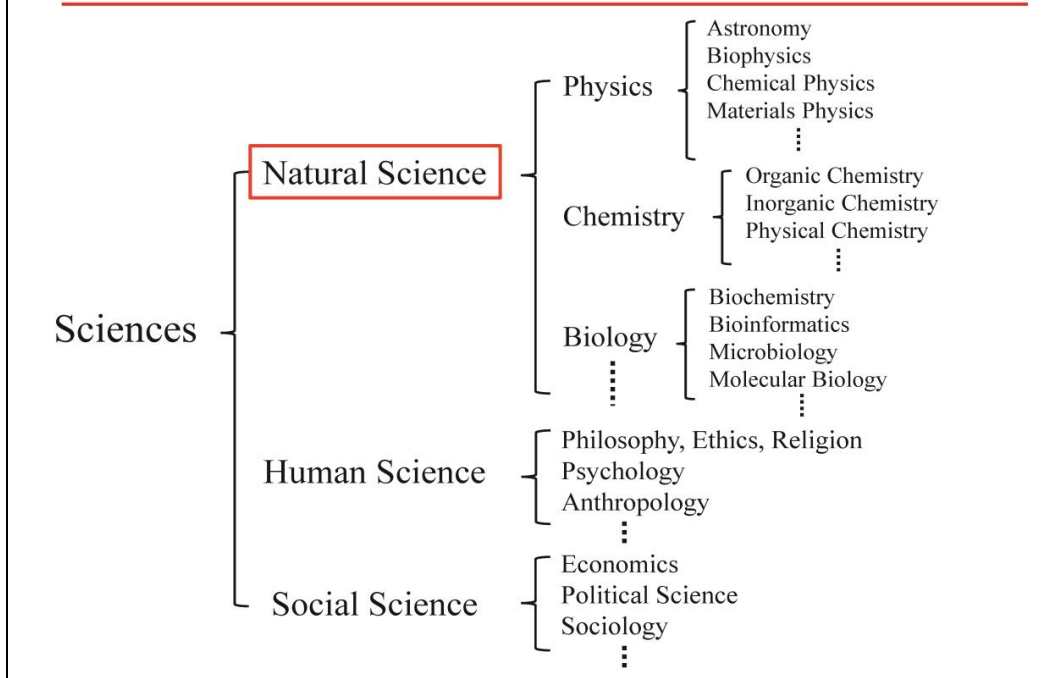
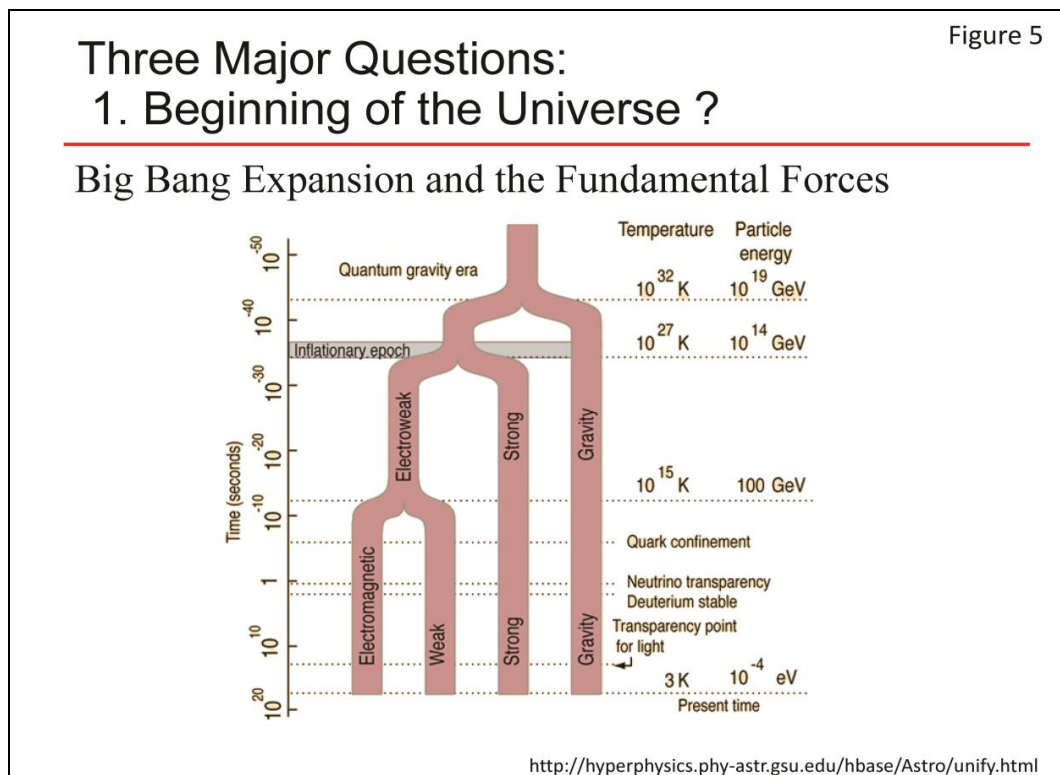
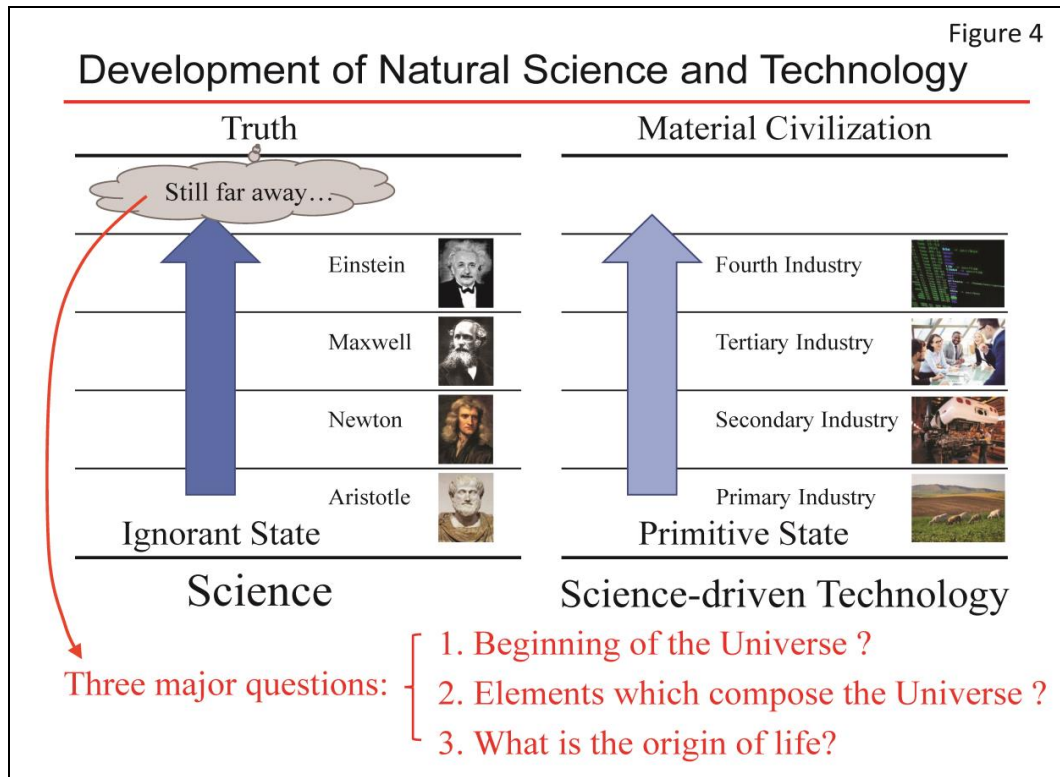
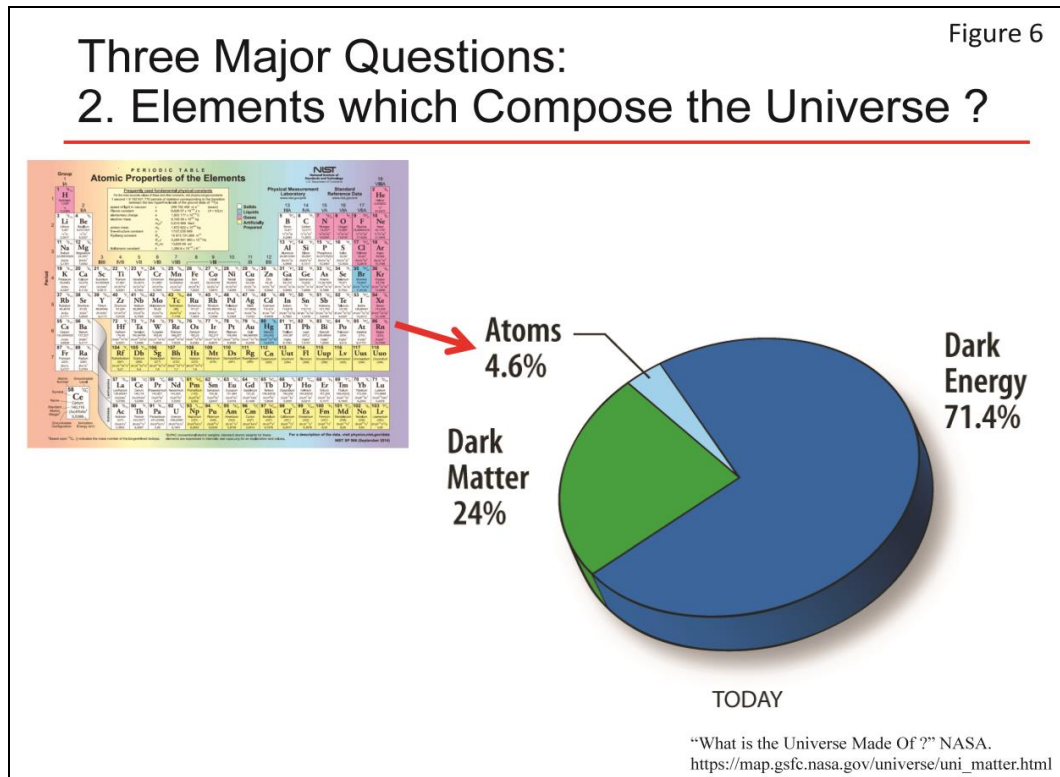


Figure 3

Disciplines of Sciences







Science is Being Developed with Incomplete State

“I do not know what I may appear to the world,
but to myself I seem to have been only like a boy
playing on the sea-shore, and diverting myself in
now and then finding a smoother pebble or a
prettier shell than ordinary, whilst the great
ocean of truth lay all undiscovered before me.”

Sir Isaac Newton

This is the science !

Figure 7

Two-sided Effects of Science-driven Technology

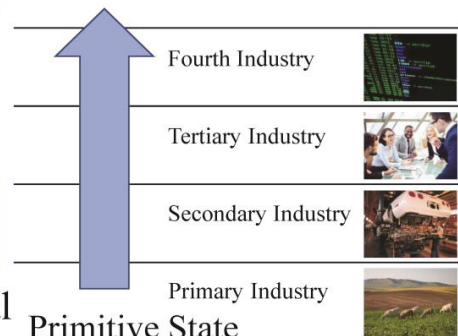
Problems due to incompleteness of the science:

- Greenhouse effect of CO₂, nuclear power plant accidents, etc.

Problems due to insufficient human development:

- Risk of ABC (atomic, biological and chemical) weapons, cyber war, etc.

Material Civilization



Science-driven technology

Figure 8

Method in Science: “Observation” and “Rationality”

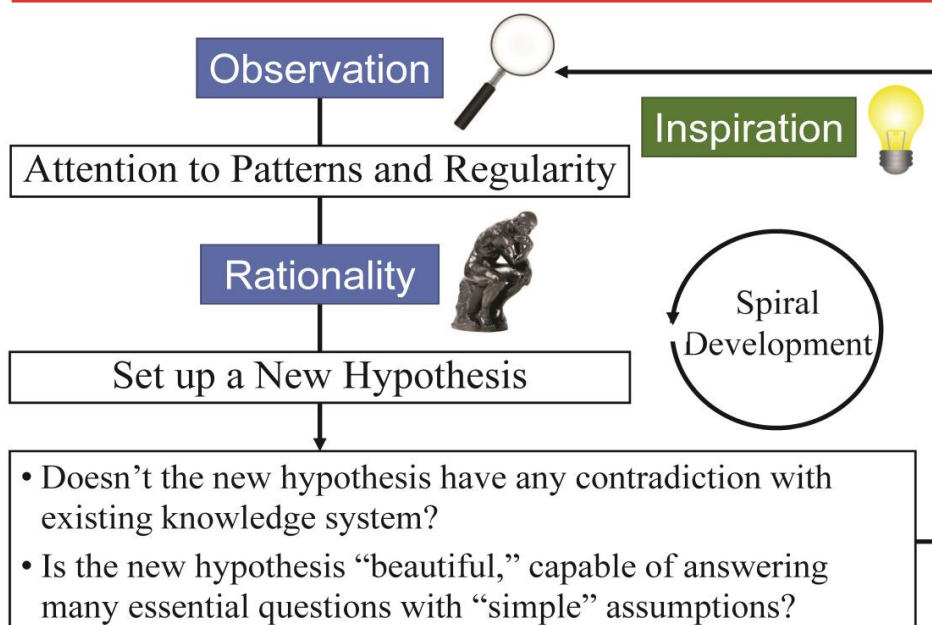


Figure 9

Universal Viewpoint in Science

- It prevents human beings from falling into prejudice and self-righteousness.
- Scientific laws and equations are acceptable, if they are valid even when described from different coordinate systems. → universal viewpoint in science
cf. bird's-eye viewpoint
 - Newton's laws of motion in macroscopic scale
 - Quantum-physics laws in microscopic scale
 - Maxwell's equations in electrodynamics
 - Einstein's theory of relativity...



Common Assumptions in Science

- Energy conservation law
- The law of entropy increase
- Causality
- Constant light velocity in vacuum under inertial frame of reference

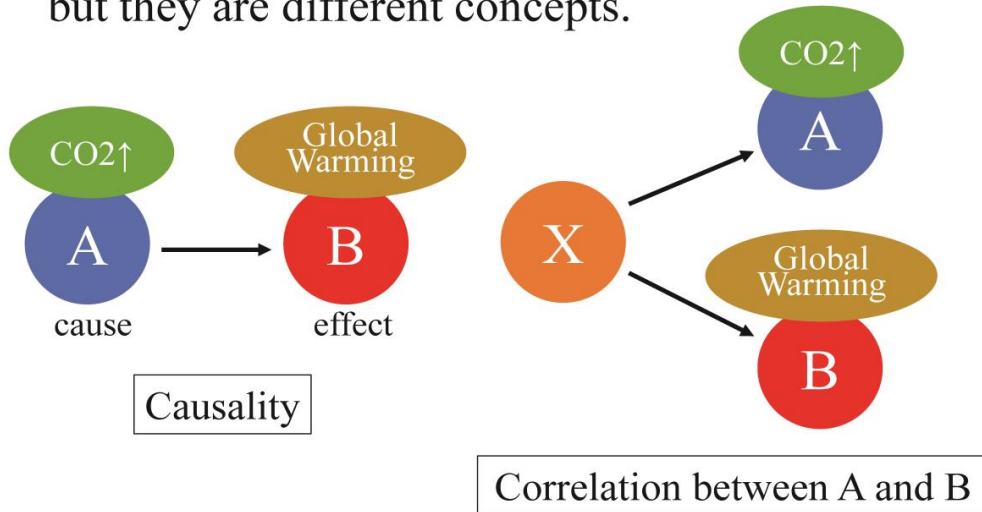
⋮

Though there remains possibility that these common assumptions in science are upgraded, they have played significant roles in pursuit of truth.

Causality vs. Correlation

Figure 10

Causality and correlation look like the same, but they are different concepts.



Solutions for Energy Problem

Figure 11

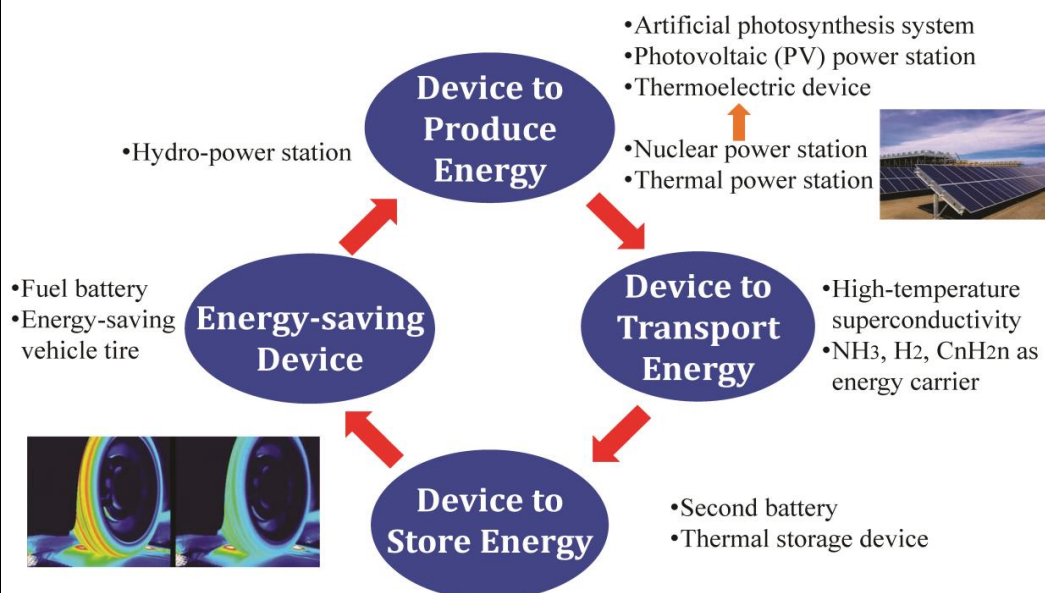
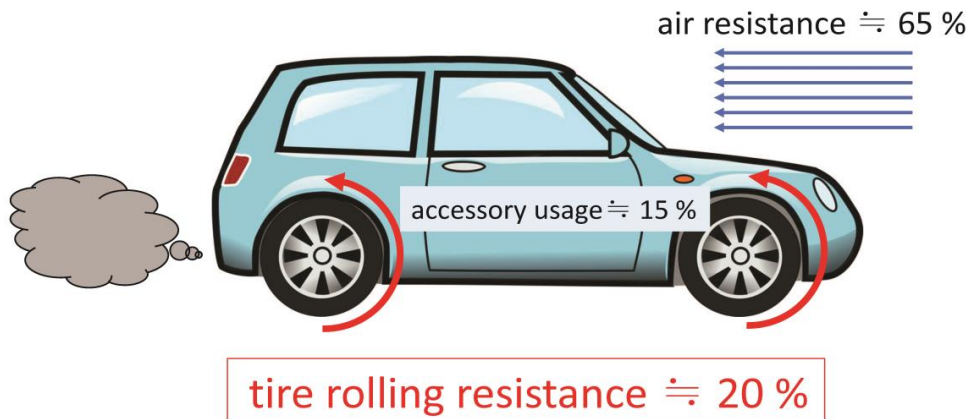


Figure 12

Development of Energy-saving Vehicles Tire



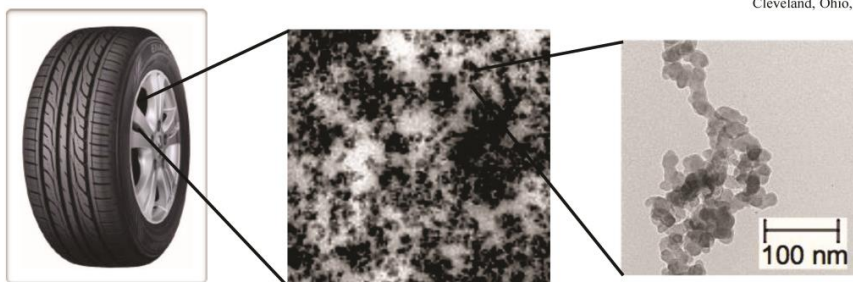
According to:
 Fuel Efficient Road Vehicle Non-engine Components:
 Potential Savings and Policy Recommendations
 International Energy Agency (IEA) Report, October 2007

Figure 13

Why vehicle tires are black?



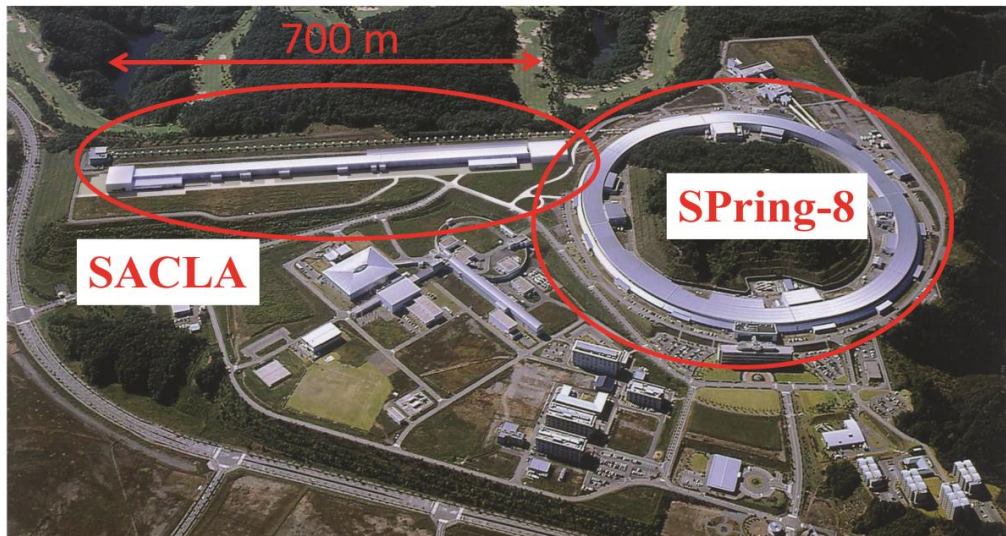
photos taken by H. Kishimoto @ Crawford Auto-Aviation Museum, Cleveland, Ohio, USA.



Electron microscopic images

Figure 14

Nano-scale Observation with X-ray Free Electron Laser



SACLA (X-ray Free Electron Laser Facility) and SPring-8 (Synchrotron Radiation Source) in Japan.

Figure 15

Development of Energy-Efficient Tire

Conventional Product

New Product

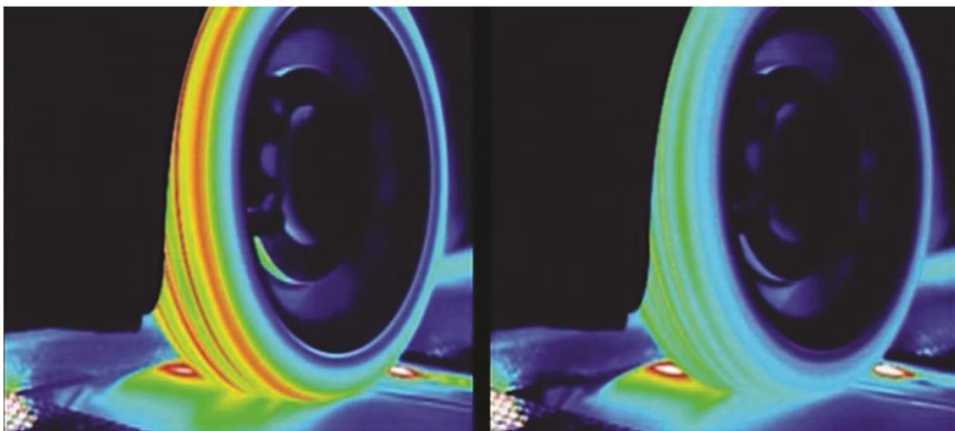
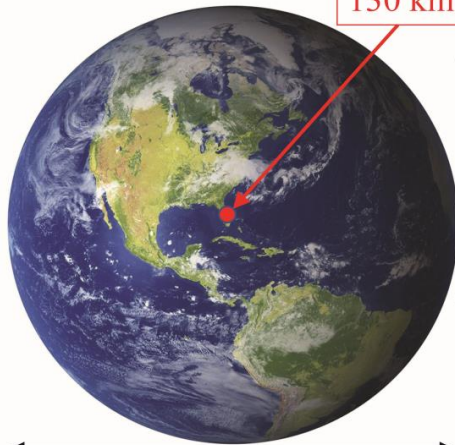


Figure 16

Possibility of Solar Energy

- Daily energy consumption by human activities amounts to one ten-thousandth of energy provided from the sun per day.

Solar-system of
130 km x 130 km size



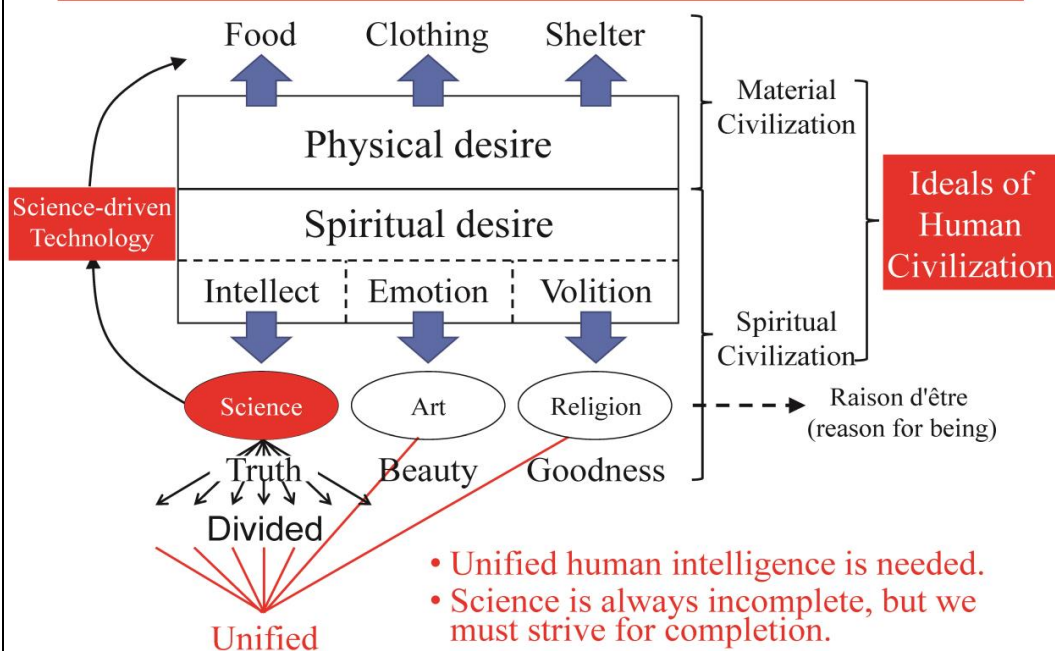
~ 12,700 km

- If the solar system of 130 km x 130 km size with 100 % energy-conversion efficiency is developed, it can provide the necessary energy for the entire human activities.
- But further innovation is required to realize such a system.

Cf. Efficiency of photosynthesis is 0.04 %.

Figure 17

Science and the Ideals of Human Civilization



Summary

1. Methods and viewpoints in science are major foundations for realizing the ideals of human civilizations. It should be noted, however, that the achievements of science have been, and will be incomplete. But we should keep on striving for completeness.
2. Science-driven technology has two-sided effects.
3. Universal viewpoint in science prevents human beings from falling into prejudice and self-righteousness.

Summary

4. We need to respect and learn from nature much more. Every existence in nature is organically connected, being neither independent nor dependent, but interdependent. So is every existence in the ideals of human civilization
5. Transdisciplinary approach in natural sciences is required for their further development.
6. Further, cross-talks among science, arts and religion should be encouraged to realize the ideals of human civilization.

Figure 18

Summary

“Science without religion is lame, religion without science is blind.”
Albert Einstein



Development of science is important, but nowadays,
human development is highly required !

Thank you very much !

Effects of Ambient Air Pollution on Human's Respiratory Health: An Environmental Health Perspective

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Abstract

Ambient air pollution (AAP) represents a major environmental issue of global concern over the years, with harmful toxicological effects on human health. Globally, it is the number one environmental health risk and is considered a “silent killer” causing every year more deaths than other big killers such as HIV/AIDS, Tuberculosis and Malaria. Nowadays, AAP produced by human activities such as industry, mining, mechanized agriculture, petroleum-powered vehicles, electricity-generating power plants, and chemical manufacturing companies is on the rise, threatening the health of populations worldwide. In low and middle-income countries of Asia and Africa in particular, as well as high-income countries, fuel combustion and biomass burning - which account for approximately 85% of airborne particulate pollution – are major sources of greenhouse gases that contribute to climate change. Recent reports show that AAP was estimated to cause 4,200,000 premature deaths annually worldwide, mainly due to environmental exposure to small particulate matter (PM_{2.5}, PM₁₀) that cause respiratory diseases, cardiovascular disorders and cancer. In 2007, the World Bank has reported that, in China, AAP was associated with 20,000,000 cases of respiratory diseases and over 300,000 deaths annually. Major outdoor and indoor air pollutants (in both the living and working environments) include particulate matter (PM), carbon dioxide (CO), nitrogen oxide (NO₂), sulfur dioxide (SO₂), ozone (O₃), polycyclic aromatic hydrocarbons (PAHs) and volatile organic compounds (VOCs). Obviously, the respiratory system is one of the principal targets of air pollutants. Several studies have shown associations between environmental and/or occupational exposure to air pollutants and diseases of the respiratory tract, including asthma, chronic obstructive pulmonary disease (COPD) and lung cancer. Improving the quality of ambient air may help to avert many cases of respiratory illnesses and COPD and lung cancer-associated deaths.

***Keywords:** Ambient air pollution; Environmental exposure; Pollutant; Respiratory health.

1. General introduction

1.1. Ambient Air Pollution: A Major Environmental Health Risk

Ambient air pollution (AAP) represents a major environmental issue of global concern, with harmful toxicological effects on human health. It is one of the major killers of our age and affects the health of people of all ages, including babies, children, young adults, adults and the elderly. Globally, AAP is the number one environmental health risk to health according to the World Health Organization (WHO); it is considered to be a “silent killer,” causing every year more deaths than other big killers such as HIV/AIDS, Tuberculosis and Malaria (Pruss-Ustun et al 2016; Landrigan, 2017).

Synergies between AAP and climate change are reported to increase the harm to children's health due to exposure to increased amounts of environmental pollutants (Perera, 2018). In low and middle-income countries of Asia and Africa in particular, as well as in some high-income countries, fuel combustion and biomass burning - which account for approximately 85% of airborne particulate pollution – are major sources of greenhouse gases that contribute to climate change. Nowadays, though the nature of air pollution has been changing due to the decline in indoor (household) pollution thanks to progress in replacing the use of biomass (wood, dung, trash, etc.) as fuels for heating and cooking by renewable sources of energy, increasing concentrations of air pollutants has been observed due to the expansion of megacities and other human activities. Of human activities that contribute to AAP, there are petroleum-powered vehicles that produce chemicals due to traffic such as diesel exhausted particles (DEP), mining industry, mechanized agriculture with the proliferation of pesticides, and the rise of chemical manufacturing companies that are threatening the health of populations worldwide (“Global Burden of Disease Risk Factors collaborators 2015”, 2016; Landrigan, 2017).

1.2. Impact of Ambient Air Pollution in Asia-Pacific and Sub-Saharan Africa regions

1.2.1. AAP in the Asia-Pacific region

AAP is one of major risk factors that contribute to the occurrence of noncommunicable diseases (NCDs), which account for 70% of all deaths occurring worldwide. It is the second leading cause of death from NCDs, after tobacco smoking (WHO, 2019). Recent reports from the World Health organization (WHO, 2018) show that AAP was estimated to cause 4,200,000 premature deaths annually worldwide, mainly due to environmental exposure to small particulate matter of 2.5 microns or less in diameter (PM_{2.5}), which causes respiratory and cardiovascular diseases, and cancers as well. In addition, according to WHO reports, AAP is, at least partially, responsible for the increasing rates of Disability Adjusted Life Years (DALYs), especially in South-East Asia.

About 91% of those premature deaths occur in low and middle-income countries, with South-East Asia and Western Pacific countries bearing the greatest burden. In 2007, the World Bank has reported that, in China, AAP was associated with 20,000,000 cases of respiratory diseases and over 300,000 deaths annually. Additionally, outdoor air pollution combined with water pollution cost approximately 100 billion US dollars to the Chinese economy annually (The World Bank, 2007; Marino et al., 2015).

The “Asian dust,” a seasonal dust storm that frequently occurs in winter and spring, is another contributor AAP in east and south-east Asia, reaching about 43 million tons. Usually, it originates from China and Mongolia and then carries the soil particles to the eastern and southeastern areas towards Taiwan, Japan, Republic of Korea and the Philippines. Moreover, epidemiologic studies have shown evidence of deleterious effects of the dust storm-contained airborne particles on human health, the respiratory health in particular, increasing hospitalization rates and mortality in affected zones (Chen et al., 2004; Bell et al., 2008; Yu et al., 2012). Those studies and others showed significant association between the dust storm occurrence on one hand, and asthma and intracerebral hemorrhagic stroke hospital admissions in Taiwanese children.

In Japan, well-known major sources of AAP pollution from the 1950’s to 1970’s have been industrial settings and motorization (Nakao et al., 2019). However, thanks to the rapid development of new and environment-friendly technologies, as well as the efforts by policymakers and the public administration, there is a decrease in amount of pollutants generated by manufacturing industries and traffic. Nonetheless, a great concern remains in regard to air pollution associated with Asian dust, which comes from the mainland of the East-Asia region. Two recent studies conducted by Shima (2017) and Nakao and colleagues (2019) in a sample of adult Japanese people showed that environmental exposure to air pollutants triggered respiratory symptoms in both participants with and without pre-existing chronic respiratory disorders. Furthermore, exposure to air pollutants during episodes of Asian dust was associated with allergic symptoms.

In Korea, a recent systematic review of studies that investigated quantitative associations of air pollutants (PM10, PM2.5, SO₂, NO₂, O₃ and CO) and morbidity and the risk of mortality among Korean populations showed evidence of causal association with morbidity (Bae and Kwon, 2019).

1.2.2. AAP in Sub-Saharan Africa

In the Sub-Saharan Africa (SSA) region, there has been an epidemiological transition characterized by the rapid rise in NCDs, besides infectious diseases, that might be explained by changes in lifestyle, the growing urbanization in Africa and, of course, air pollution. This has resulted in increased prevalence of respiratory and cardiovascular disorders and aggravation of pre-existing lung and heart diseases, premature deaths and reduced life expectancy (Katoto et al., 2019). In Africa, major contributors to AAP include the mining, agriculture, construction, transportation sectors; however, in the scientific literature, not many studies have been conducted and reported, especially in the SSA.

For almost a decade, we have been implementing international collaborative studies that evaluate the health effects of chronic occupational exposure to dusts in the working environment in the Democratic Republic of Congo (DRC) (Ngatu et al., 2012; Kabamba et al., 2018). $PM_{2.5}$ concentrations eight times higher or more than the exposure limit levels recommended by WHO were found in coltan mining, stone quarry and construction sites during air quality monitoring for respiratory health risk assessment. Higher prevalence of asthma-like symptoms (wheezing, breathlessness) and chronic bronchitis (coughing, sputum, etc.) in open mining sites, whereas several cases of lung fibrotic disorder (silicosis) were diagnosed with impaired lung function. Similar studies conducted in African copper, cobalt and gold miners in Ghana, South Africa and DRC showed evidence of the toxic effects of mineral dusts on the respiratory system (Bio et al., 2007; Bateman, 2012; Kabamba et al., 2017).

2. Air Quality as Indicator of Sustainable Development

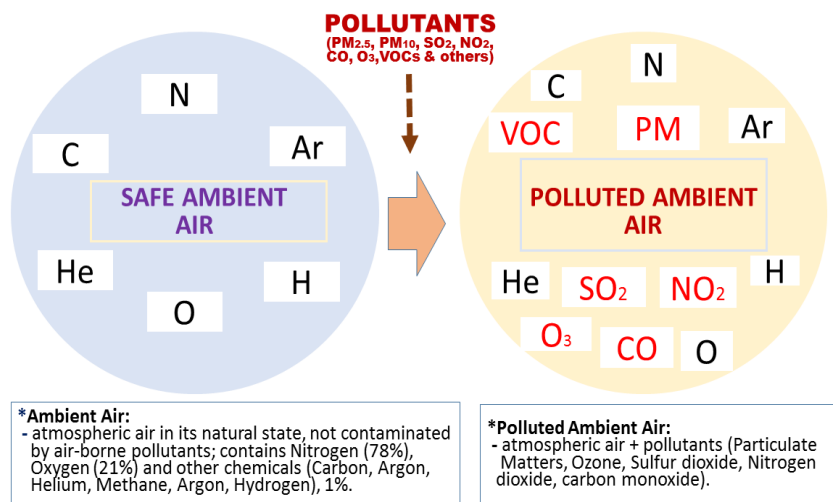


Fig.1- Difference in the composition of safe (unpolluted) and polluted ambient air

Sources of air pollution generate pollutants that have a great potential to modify the climate, threatening the lives and well-being of exposed populations. The United Nations' sustainable development goals (SDGs), in particular SDG3 and SDG7, are closely related to the quality of the living environment. Thus, the concern about pollution of ambient air is reflected in SDGs, which stipulate the necessity for government of countries to ensure good health and well-being to their population (SDG3) and promote access to clean energy (SDG7) that prevent AAP and climate change.

Normally, ambient air is comprised of nitrogen (N), carbon (C), helium (He), hydrogen (H), argon (Ar) and oxygen (O). In circumstances where the atmosphere is contaminated by air pollutants due human activities or natural phenomena such as a storm, earthquake, tsunami, etc. ambient air may contain chemicals and particles that may cause nuisance to human health,

namely particulate matter (PM), ozone (O₃), volatile organic compounds (VOC), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and carbon monoxide (CO) (**Fig.1**). When generated at ground-level, Ozone is a health hazard. It is formed by the reaction with sunlight of pollutants such as nitrogen oxides (NO_x) from vehicles during traffic and industry emissions and volatile organic compounds (VOCs) emitted by vehicles, solvents, etc. That will result in higher levels of ozone pollution, occurring mainly during periods of sunny weather (CO) (WHO 2018).

Furthermore, when considering the adverse effects of air pollutants on the respiratory health, high concentrations of fine particles such PM_{2.5}, VOCs, SO₂ and NO₂ cause an increase in oxidative stress and airway inflammation. Due to their toxic effects in humans, concentrations of those air pollutants should be monitored regularly and kept to strict minimum levels below the normal exposure limits.

3. Burden of Environmental Air Pollution: Epidemiologic Profile of common AAP-attributable Lung Diseases

3.1. Rhinitis, Asthma and chronic bronchitis

Outdoor and indoor air pollution are known to exacerbate pre-existing allergic and non-allergic respiratory disorders, including rhinitis, asthma and chronic bronchitis. On the other hand, studies have also suggested that AAP can contribute or induce the onset of those diseases (Guarnieri and Balmes, 2014). Outdoor air pollution causing exacerbations of pre-existing asthma is supported by an evidence base that has been accumulating for several decades, with several studies suggesting a contribution to new-onset asthma as well. According to the study by Bae and Kwon (2019) in Seoul, it was found in time series analysis that an increase in PM₁₀, SO₂, NO₂, CO, and O₃ showed significant increase of the risk for children's asthma hospitalization.

3.2. Chronic Obstructive Pulmonary Disease (COPD) and lung cancer

COPD is a progressive lung disease characterized by a persistent inflammatory response that, in general, cannot be reversed and leads to progressive decline in lung function and death. Tobacco smoking is well-known as the main cause of COPD; however, several studies have suggested that AAP is an important factor in its development (Marino et al., 2015). In 2015, studies have shown that higher COPD mortality rates and DALYs in South-East Asia region with 39 deaths per 100,000 people and 791 DALYs per 100,000 people, followed by Western Pacific region with 25 deaths per 100,000 people and 421 DALYs per 100,000 (Babatola, 2018). Regarding cancer of the respiratory tract, it was observed that South-East Asia and the Eastern Mediterranean regions had an increase in AAP-attributable cancers of the trachea, bronchus and lung since 2000, whereas rates of those cancers remained stable in the African region. Moreover, WHO estimates that 6% of lung cancer deaths were caused by air pollution in 2016 (WHO 2018).

3.3.Silicosis (Pneumoconiosis)

Silicosis is one of lung diseases caused by environmental or occupational exposure to dust. It is an interstitial pulmonary disease secondary to the inhalation of crystalline silica (silicon dioxide: SiO_2), usually in the form of quartz. It is one of the world's oldest known occupational diseases characterized by being irreversible, progressive and almost always fatal; no specific treatment exists, although a small minority of patients may undergo lung transplantation. This lung disease can occur weeks, a few years, 10 years or more after exposure to silica, depending on the amount and concentration of inhaled silica dust. Silica is the second most abundant element that forms a quarter part of the earth's crust; thus, it is a ubiquitous mineral in human environment (Ngatu et al., 2012; The Lancet Respiratory Medicine, 2019). The mining and construction sectors that involve drilling, cutting, grinding or crushing the earth's crust or rocks are obviously associated with high level of silica exposure in both occupational and non-occupational environments. Hazardous exposures to silica dust often occur also in informal and industrial operations such as sandblasting, rock drilling, road and tunnel construction, pottery making and masonry (Bang et al., 2015).

In many developing countries, such as in Africa and Asia, mining business and minerals processing industries represent the main source of income for the governments. However, it is very common to find employers who do not care about the work safety conditions of the workers, and employees perform their daily tasks without using any appropriate personal protective equipment (PPE) (Ngatu et al., 2012). This fact puts them at high risk of occupational lung diseases; in case the silica dust goes into the lung parenchyma or reaches the alveoli, Silicosis may develop with high risk for lung cancer.

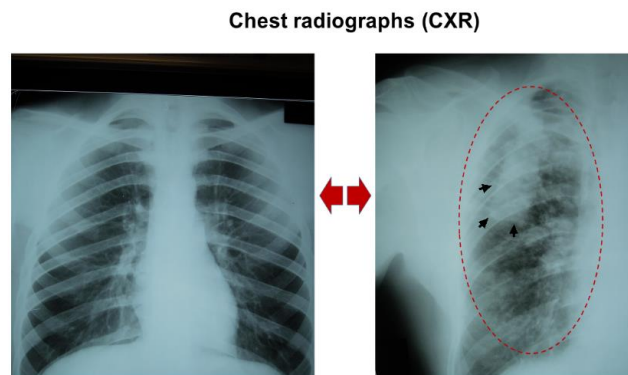


Fig. 2- normal (left), silicosis patient's CXR (right) with round opacities and progressive massive fibrosis (PMF) (with courtesy of Professors Kusaka Y. and Suganuma N.)

Recently, public concern regarding **ambient exposure to crystalline silica** has emerged. Non-occupational exposures to silica are rarely estimated or measured in community environment, given that it mainly occurs in residential areas located in the vicinity of silica-processing industries (Bhagia, 2012) such as cement producing plants and other construction settings. Silicosis has been established as carcinogenic by the International Agency for Research on cancer in 1997; this means that it can cause lung cancer. A number of cohort

studies have confirmed the relationship between silica dust exposure and lung cancer risk, with a standardized mortality ratio (SMR) between 1.37 and 3.70; some of those reports showed stronger associations with excess mortality from lung cancer among silicotics (Scarselli et al., 2011; Erren et al., 2009; Pelucchi et al., 2006). Hence, doctors or clinicians should keep in mind the relationship between a workplace with exposure to silica dust and the development of other respiratory diseases such as lung cancer (Ngatu et al., 2012).

The most common radiological feature that can be seen on chest radiographs (CXR) or computed tomography (CT) films is presence of ‘silicotic nodules’ (Ngatu et al., 2012; Bhattacharya et al., 2016). However, the nodules may coalesce and form a “large opacity” known as “progressive massive fibrosis” or PMF (Fig.2).

4. What are the Solutions to Ambient Air Pollution-associated Environmental Respiratory Diseases?

Prevention

There is a saying that “prevention is better than cure.” Preventive measures should target both outdoor and indoor air pollution. They comprise, but are not limited to:

(1) For industries:

- Use of clean technologies susceptible to reduce industrial air pollutants emissions and elimination of hazardous gas accumulated in the atmosphere.

(2) Transport (traffic):

- A shift to clean power generators, promote walking and cycling (exercise) to commute to workplaces as often as possible.

(3) Agriculture:

- Policies for wastes reduction, their recycling and possibly re-use; avoidance of pesticides or chemical fertilizers.

(4) Power generation:

- Use of fuels with low emissions and environment-friendly sources of energy; reducing greenhouse gas emissions would have a major co-benefit in lowering primary and secondary emissions of air pollutants.

(5) Daily life in residential and working environment with air pollution:

- Periodic monitoring atmospheric concentrations of air pollutants (Air Quality Monitors are available in the market).
- Periodic risk assessment and improvement of work safety in occupational settings
- Use of appropriate personal protective equipment/devices such as masks (not all masks are appropriate as they may let fine particles, even viruses and bacteria pass through; N95 masks are strongly recommended).

(6) Health education sector and Health system:



Fig.3- Periodic lung function (Spirometry) testing for elderly in remote areas (source: the author)

- Provide basic knowledge on environmental health risks and diseases to future health care providers.
- Train specialists in environmental and occupational health, particularly in low- and middle-income countries; dispatching specialists to train others for capacity building so as to identify and control environmental hazards and manage their adverse effects on humans in communities.
- Periodic medical check-up for respiratory health explorations in communities and occupational settings at high risk of AAP-associated lung diseases (spirometry, lung auscultation, eventually radiological investigation) (**Fig.3**).

Management of AAP-associated Respiratory Diseases

Most of respiratory inflammatory diseases can be managed in clinics and hospitals. However, COPD and Silicosis are chronic conditions that are currently considered incurable. Regarding Silicosis, recent clinical trials have shown improvement of patients' health in terms of reduction of airway inflammation and symptoms (Sun et al., 2019). But, reversing the course of the disease still seems to be not at hand, but only a dream. Nonetheless, avoidance of exposure to triggers (tobacco smoke and other air pollutants) may slower disease progression and, possibly, the occurrence of complications.

5. Acknowledgments

We thank Professor Simon Bedelo Mpungi and “DR Congo Environment and Health Research Team” members for their support and advice during the preparation of this paper.

6. Conflict of interest declaration

No conflict of interest related to this paper.

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Effects of Ambient Air Pollution on Human's Respiratory Health: An Environmental Health Perspective

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ICUS Conference 2020

 INTERNATIONAL UNIVERSITY OF HEALTH AND WELFARE IUHW School of Medicine

**Effects of Ambient Air Pollution on Human's Respiratory Health:
An Environmental Health Perspective**

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School of Medicine & Graduate School of Public health
Chiba & Tokyo, Japan.

ICUS 2020, Effects of AAP on Respiratory Health

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- **Industry, Power production, Transport, Agriculture sectors**
- **Health system, Health Education sector**

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Conflict of interest declaration

I have no conflict of interest to declare.

1. Background

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Background

1.1. AAP: A Major Environmental Health Risk

> Ambient air pollution (AAP) :

- major environmental health issue of global concern.
- No1 environmental risk to human health.
- one of major killers of our age; **affects of people of all ages.**
- **'silent' killer; it causes more deaths than HIV/AIDS, Malaria and Tuberculosis (WHO, 2016; Landrigan, 2017).**

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1. Background

Global and Regional Impacts of AAP



- * over 2 Million in SEAR
- * over 2 Million in Western Pacific
- * about 1 Million in Africa
- * about ½ Million in Europe. (WHO Report)
- * AAP causes 4,200,000 premature deaths / year. (WHO, 2018)

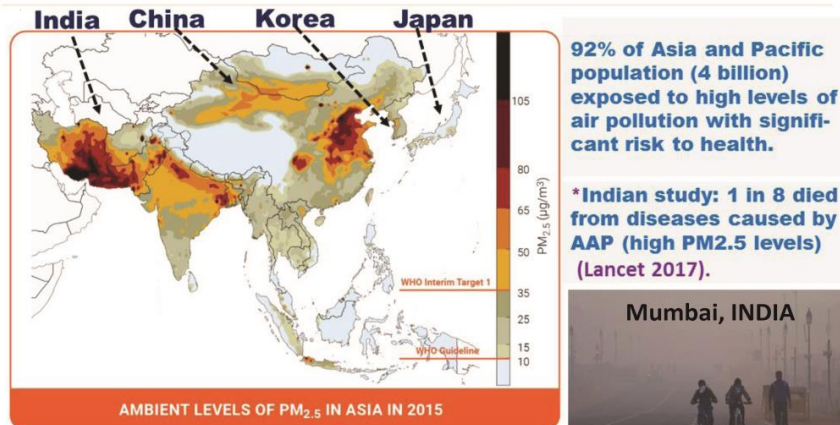
(Courtesy of WHO Media office)

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2. Air Pollution and Disease Burden

AAP in Asia and Pacific Region (WHO, 2018)



- Korea and Japan: increase in PM_{2.5} has caused high asthma rates.
- China: 20 Million cases of respiratory diseases & 300,000 deaths annually due to AAP, costing 100 Billion US\$ (World Bank).

Air Pollution and Disease Burden

AAP in Sub-Saharan Africa region

- **Epidemiologic transition**, change in lifestyle + AAP:
 - > increasing prevalence of Non-communicable diseases (NCDs);
 - > aggravation of pre-existing lung, heart diseases;
 - > premature deaths.
 - > reduction of life expectancy (Katoto et al, 2019).
- **Main AAP contributors in Africa:**
 - Mining, Construction, Transportation sectors.

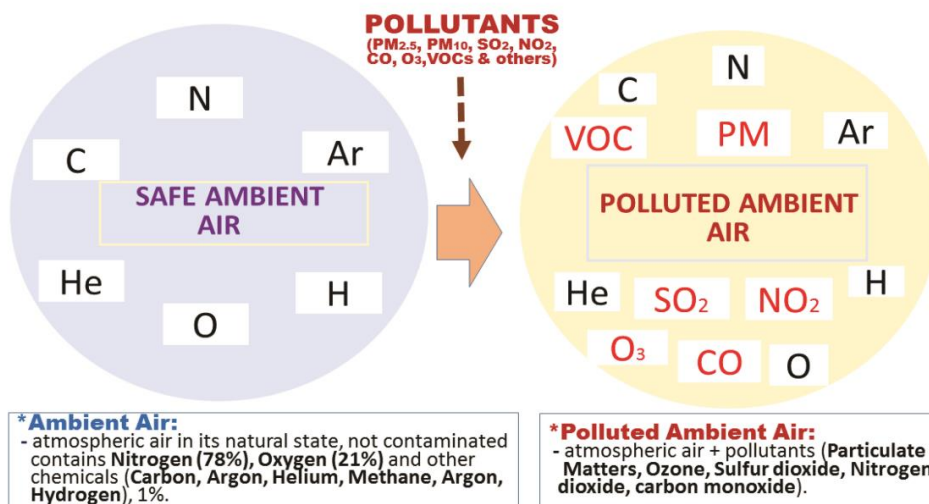
Air Pollution and Disease Burden

Air Quality: Indicator of Sustainable Development Goals

- **Air pollutants :**
> modify the climate, threatening lives and well-being exposed populations.
- **UN's SDG3 and SG7:** related to quality of Environment.
- Countries' governments should prevent AAP and climate change => **Achievement of SDGs.**

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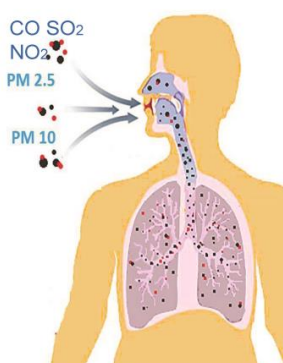
Air Pollution and Disease Burden



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Air Pollution and Disease Burden

Air Pollutants and their effects on Respiratory system



Pollutants	Injury Determinants	Tissue Affected
1. Sulfur dioxide (SO ₂)	Highly soluble	Upper airway & Skin damage
2. Nitrogen dioxide (NO ₂) 3. Ozone (O ₃)	Less soluble (NO ₂ , O ₃ are irritating)	Deeper lung penetration ➤ Bronchial & bronchiolar injury
4. Carbon monoxide (CO)	Competition with O ₂ to get fixed on Hemoglobin	Tissue hypoxia (lung, brain, heart,...)
5. Particulate matter (PM ₁₀ , PM _{2.5} , PM _{0.1})	Size, structure, and composition determine Toxicity	➤ Large particles: mucous membranes, upper airways. ➤ Small particles: bronchioles & alveoli. ➤ Ultrafine particles: systemic tissue reactions

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AAP (PM_{2.5}) Exposure and Risk of Heart & Lung Diseases (The Lancet, 2017)

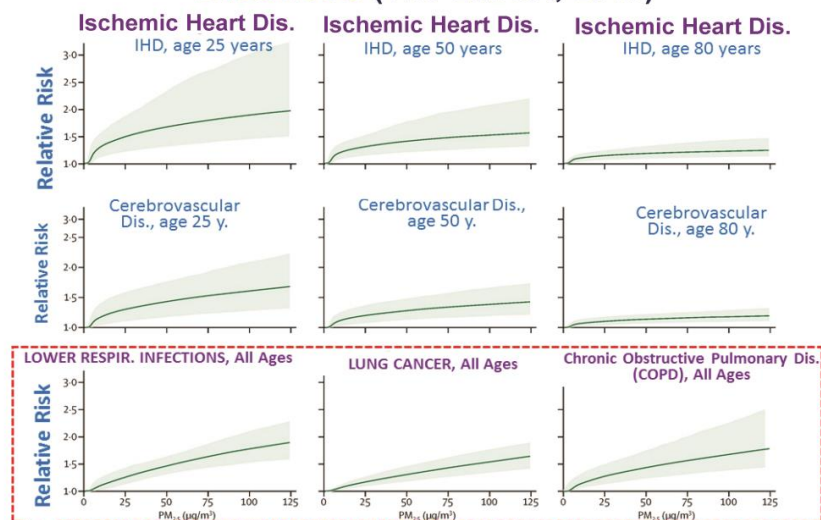


Figure . Integrated Exposure - Response functions (Cohen et al., Lancet 2017)
Curves show the central estimate of the integrated exposure-response (solid lines) and their 95% uncertainty intervals (shaded areas). The relative risk equals 1 for PM_{2.5} concentrations of 0–2.4 µg/m³ (ie, lower bound of the theoretical minimum risk exposure level uncertainty distribution). PM_{2.5}=particle mass with aerodynamic diameter less than 2.5 µm.


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Air Pollution and Silicosis (Pneumoconiosis)

A




B

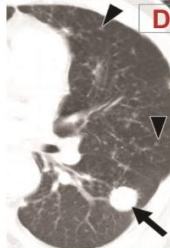


Normal (left), Silicosis Patient's CXR (right) with rounded opacities and progressive massive fibrosis
(Courtesy of Prof. Kusaka Y. & Suganuma N.)

C




D



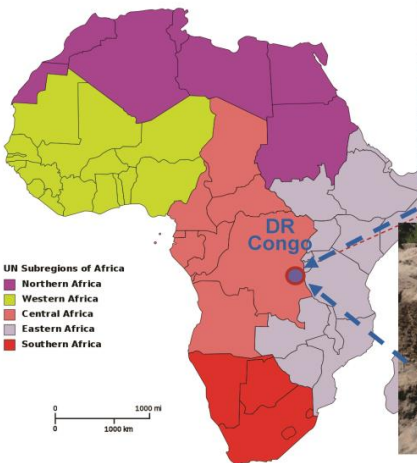
(a) Normal; (b) Silicosis chest radiograph. (c, d) Lung cancer and Silicosis in a 68-year-old Miner: CT scan showing a 2-cm diameter nodule in the lower lobe of the left lung, a finding that represents carcinoma (lung cancer); (d) Integrated positron emission tomographic (PET)-CT scan showing a high uptake of fluorine 18 fluorodeoxy-glucose (FDG) (arrow) in the nodule, a finding suggestive of malignancy (cancer).

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Sub-Saharan Africa: Occupational Exposure to Dust in Work Environment




UN Subregions of Africa
 ■ Northern Africa
 ■ Western Africa
 ■ Central Africa
 ■ Eastern Africa
 ■ Southern Africa

0 1000 mi
0 1000 km




Women stone quarry workers

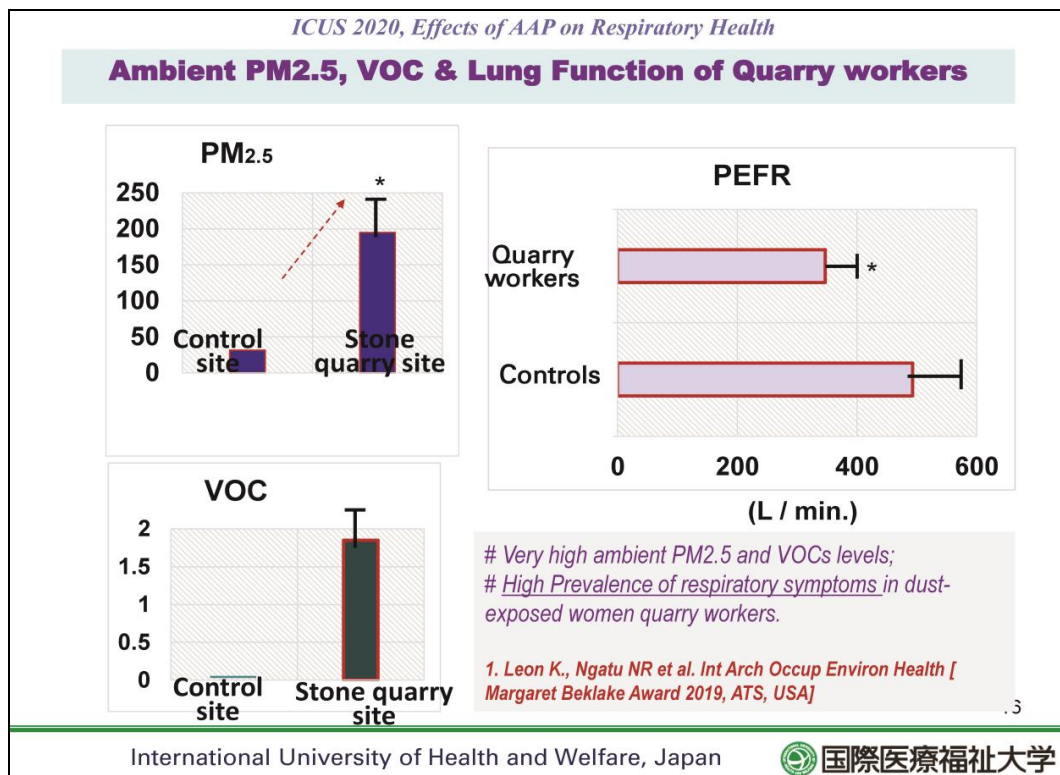
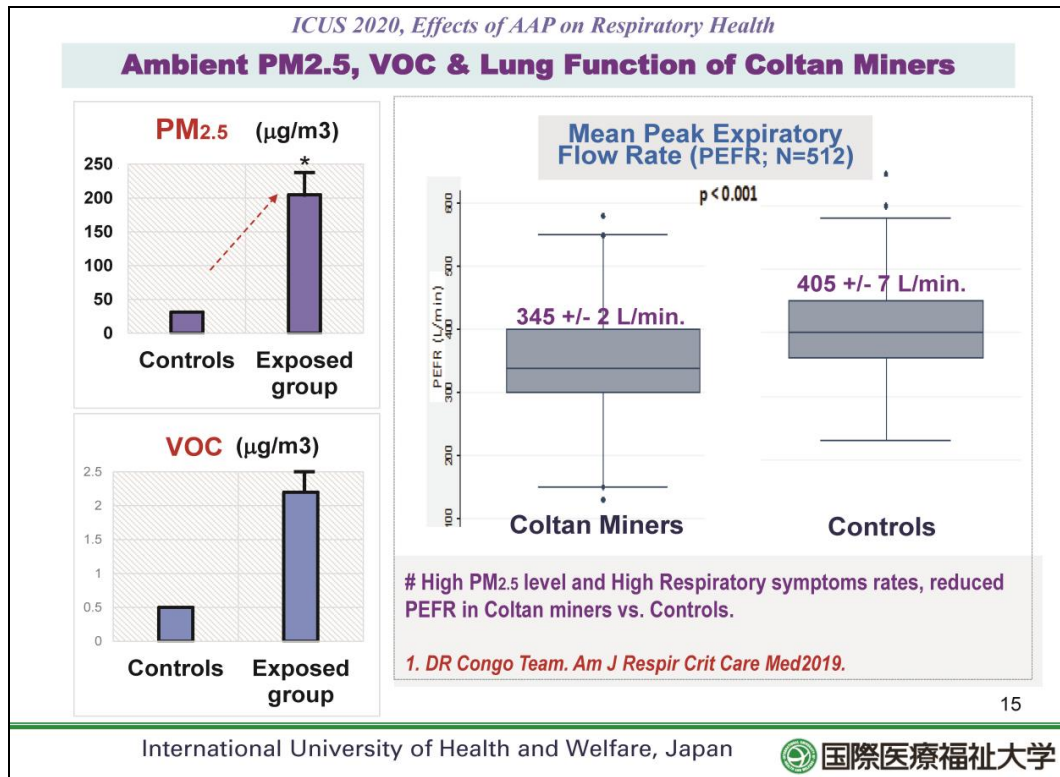


Informal 'coltan' miners

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3. Solutions to AAP-associated Respiratory Diseases

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3. Solutions to AAP-associated Respiratory Diseases

- Industry, Power production, Transport

- > Use of clean technologies: reduce industrial air pollutants emission.
- > Air Purifiers: Reduction of hazardous gas.
- > A shift to clean power engines; walking, cycling.

- Agriculture

- > Policies for wastes Reduction, Recycling.
- > Avoiding Pesticides/chemical Fertilizers.

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- Daily life, Health System & Education



> Air Quality Monitoring & Periodic Risk Assessment in exposed communities/workplaces (spirometry).

> Regulation and law enforcement of activities with pollutant emission.

> Personal protective equipment/ devices (PPE) such as masks.

> Capacity-building: Train specialists.

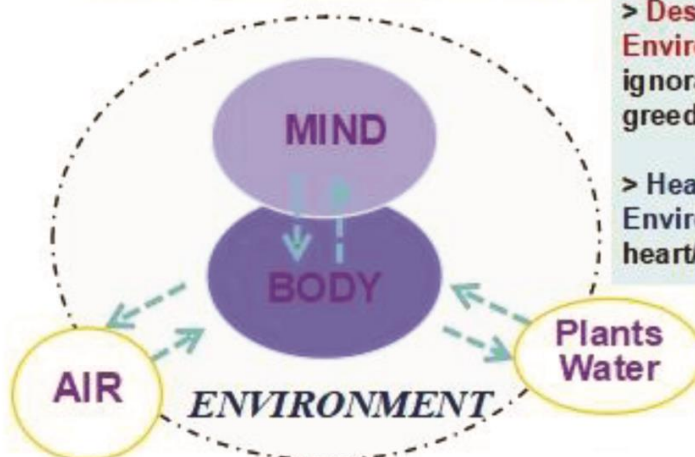


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To Summarize:


'Mens sana in Corpore, Ecos sano in Pace'

< Healthy Mind in Healthy Body & Environment in Peace >



> Destruction of Environment by human: ignorance, self-interest, greed.. (sick Mind).

> Healthy, sustainable Environment: altruistic heart/Mind >> PEACE !

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Short vide on 'Breathe-Life' (courtesy of WHO Media office)

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THANK YOU FOR YOUR ATTENTION

KAMSA HAMNIDA

ARIGATOU GOZAIMASU !

Global Water Problems

Dr. Soo Wahn Lee

Prof., Sun Moon University, Korea

Former President, IUMRS

It has been reported that man had affected the bio-geochemical of nature in a variety of ways, using DDT in the cotton and corn fields in America in 1950's, and Agent Orange of 2,4,5-T and 2,4-D in Vietnam war from 1965 to 1971. There have been noticeable changes in climate on the earth atmosphere due to heavily having been burning the fossil fuels for more than one hundred years. Some of these changes are thought to have wide-ranging effects, so called the climate change.

In addition to changes which are the unintended by-product of human activities, there are global environmental problems in terms of air pollution, water pollution, soil pollution, and ocean pollution.

Particularly, waters flowing underground, rivers and lakes have been contaminated continuously by wasting dyes, plastics, drugs, and chemicals. Also heavy toxic hazardous metals such as Cadmium, Chrome, Lead, Mercury, and Nickel are polluted into drinking water in Asia, Africa and Latin America. One of successful story using nanofiltersystem in drinking water in Tanzania, Africa will be introduced.

Global Water Problems

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Global Water Problems

Kintex

February 4, 2020

Soo Wahn Lee

Sun Moon University

Immediately Past President of IUMRS

- **General Topic:** Co-existence (공생, 共生), Co-prosperity (공영, 共榮), and Co-righteousness (공의, 共義) for World Peace

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Reflections on the Unity of Sciences and World Peace: Dr. Moon's Achievements and a Paradigm for the Academic Disciplines

Founder's Motto of Sun Moon University: Love for God, Love for Human, Love for Nation

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Poverty Relief Disease Eradication Education and Welfare	Resolution of Disputes Religious Harmony Peace Among Nations	Climate Change Prevention Biodiversity Energy Innovation

**12th papers of
International Conference on the Unity of the Sciences
1/6, committee I
(1983. 11. 24-27. Chicago, Illinois, USA)**

GLOBAL ENVIRONMENTAL PROBLEMS

It has become evident that man can and does affect the bio-geochemical cycles of nature in a variety of ways. There have been noticeable changes in the chemical composition of the atmosphere and on the surface of the earth. Some of these changes are thought to have wide-ranging effects, including effects on the earth's climate.

In addition to changes which are the unintended by-product of human activities, there are also planned interventions in the land, water, or atmospheric environment. These might be called "planetary engineering."

Finally, there are naturally occurring changes, some rapid and even catastrophic, others quite slow and often involving feedback between the biosphere and the physical environment.

The purpose of the committee will be to describe these ongoing changes and estimate their probable consequences on the well being of the world's population.

6. WORLD WATER PROBLEMS: DESERTIFICATION



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Research Center Giza,
Egypt

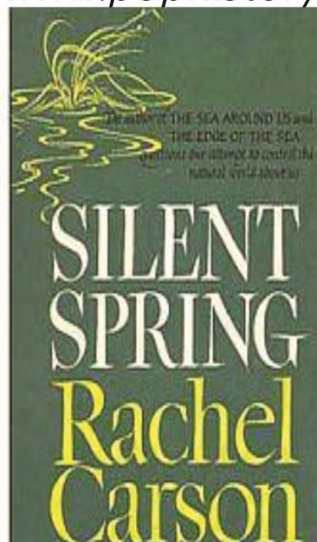
AVRAHAM MELAMED
Tushia, Ltd.
Consulting Engineers
Tel Aviv, Israel

SESSION 3.

Sunday, November 27, 1983 / 9:00 A.M. - 12:30 P.M.

Chicago, D.

Rachel Carson's 1962 book, "Silent Spring," documented how toxins from pesticides remained in the environment and entered the food chain. Credit www.pophistory.com



How 'Silent Spring' ignited the modern environmental movement

'Silent Spring' Is Now Noisy Summer

Pesticides Industry Up in Arms Over a New Book

By JOHN M. LEE

The \$300,000,000 pesticides industry has been highly irritated by a quiet woman author whose previous works on science have been praised for the beauty and precision of the writing.

The author is Rachel Carson, whose "The Sea Around Us" and "The Edge of the Sea" were best sellers in 1951 and 1955. Miss Carson, trained as a marine biologist, wrote gracefully of sea and shore life.

In her latest work, however, Miss Carson is not so gentle,



Rachel Carson Stirs Conflict—Producers Are Crying 'Foul'

fending the use of their products. Meetings have been held in Washington and New York. Statements are being drafted and counter-attacks plotted.

A drowsy midsummer has suddenly been enlivened by the greatest uproar in the pesticides industry since the cranberry scare of 1959.

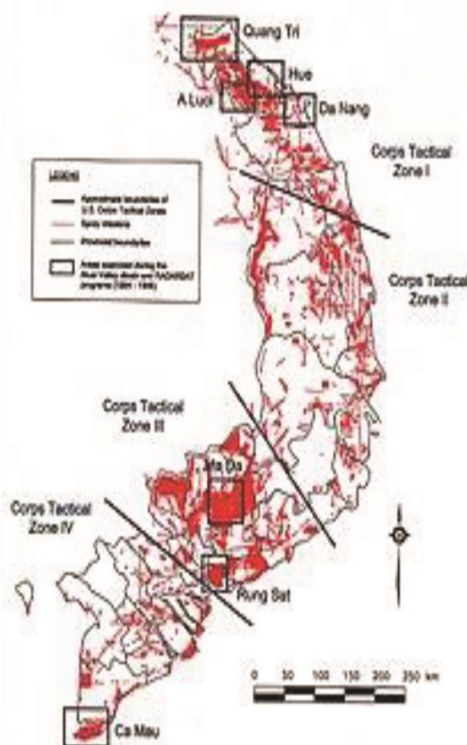
Miss Carson's new book is entitled "Silent Spring." The title is derived from an idealized situation in which Miss Carson envisions an imaginary town where chemical pollution has silenced "the voices of spring."

- Her research led to a ban on the pesticide DDT for agricultural use and sparked an environmental movement that eventually led to the creation of the U.S. Environmental Protection Agency.
- "The Power of One Voice: A 50-Year Perspective on the Life of Rachel Carson"

U.S. Army Huey helicopter spraying Agent Orange over agricultural land during the Vietnam War



Map showing locations of U.S. Army aerial herbicide spray missions in South Vietnam taking place from 1965 to 1971.



Leaking Agent Orange barrels at Johnston Atoll circa 1973.



Rusting Agent Orange barrels at Johnston Atoll, circa 1976.



From Wikipedia, the free encyclopedia

- **Agent Orange** is an [herbicide](#) and [defoliant](#) chemical, one of the "tactical use" [Rainbow Herbicides](#). It is widely known for its use by the [U.S. military](#) as part of its [chemical warfare](#) program, [Operation Ranch Hand](#),^[1] during the [Vietnam War](#) from 1961 to 1971.^[2] It is a mixture of equal parts of two herbicides, [2,4,5-T](#) and [2,4-D](#). In addition to its damaging environmental effects, traces of [dioxin](#) (mainly [TCDD](#), the most toxic of its type)^[3] found in the mixture have caused major health problems for many individuals who were exposed.

Chemical composition [edit]

The active ingredient of Agent Orange was an equal mixture of two phenoxy herbicides – 2,4-dichlorophenoxyacetic acid (2,4-D) and 2,4,5-trichlorophenoxyacetic acid (2,4,5-T) – in iso-octyl ester form, which contained traces of the dioxin 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD).^[9]

TCDD was a trace (typically 2-3 ppm, but ranging from 50 ppb to 50 ppm),^[10] but significant contaminant of Agent Orange. TCDD is the most toxic of the dioxins, and is classified as a human carcinogen by the US Environmental Protection Agency.^[11]

If not bound chemically to a biological surface such as soil, leaves or grass, Agent Orange dries quickly after spraying and breaks down within hours to days when exposed to sunlight and is no longer harmful.^[12]

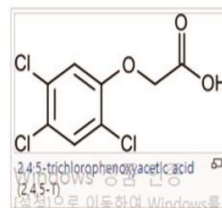
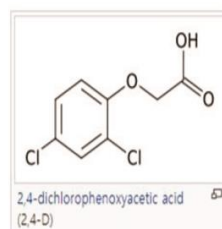
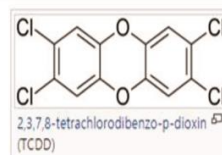
Toxicology [edit]

Due to its fat-soluble nature, TCDD enters the body through physical contact or ingestion.^[13] Dioxin easily accumulates in the food chain. Dioxin enters the body by attaching to a protein called the [aryl hydrocarbon receptor](#) (AhR), a transcription factor. When TCDD binds to AhR, the protein moves to the nucleus, where it influences gene expression.^{[14][15]}

Development [edit]

Several herbicides were discovered as part of efforts by the US and the British to develop herbicidal weapons for use during World War II. These included 2,4-D (2,4-dichlorophenoxyacetic acid), 2,4,5-T (coded LN-14, and also known as trioxone), MCPA (2-methyl-4-chlorophenoxyacetic acid, 1414B and 1414A, recoded LN-8 and LN-32), and isopropyl phenylcarbamate (1313, recoded LN-33).^[16]

In 1943, the U.S. Department of the Army contracted the botanist and bioethicist Arthur Galston, who discovered the defoliants later used in Agent Orange, and his employer University of Illinois at Urbana-Champaign to study the effects of 2,4-D and 2,4,5-T on cereal grains (including rice) and broadleaf crops.^[17] Galston, then a graduate student at the University of Illinois, in his research and 1943 Ph.D. dissertation focused on finding a chemical means to make soybeans flower and fruit earlier.^[18] He discovered both that 2,3,5-trichlorobenzoic acid (TIBA) would speed up the flowering of soybeans and that in higher concentrations it would



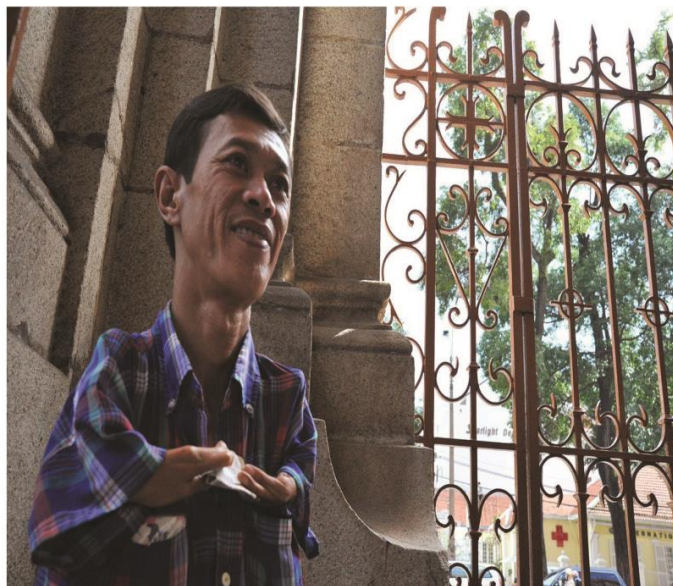
- Up to four million people in [Vietnam](#) were exposed to the defoliant. The government of Vietnam says as many as 3 million people have suffered illnesses because of Agent Orange.^[4] The [Red Cross of Vietnam](#) estimates that up to 1 million people are disabled or have health problems as a result of Agent Orange contamination.^[5] The United States government has challenged these figures as being unreliable.^[6] The U.S. government has documented higher cases of [leukemia](#), [Hodgkin's lymphoma](#), and various kinds of [cancer](#) in exposed veterans. Agent Orange also caused enormous environmental damage in Vietnam. Over 3,100,000 hectares (31,000 km² or 11,969 mi²) of [forest](#) were defoliated. Defoliants eroded tree cover and seedling forest stock, making [reforestation](#) difficult in numerous areas. Animal [species diversity](#) sharply reduced in contrast with unsprayed areas.^{[7][8]}

- The use of Agent Orange in Vietnam resulted in massive legal consequences. The [United Nations](#) ratified [United Nations General Assembly Resolution 31/72](#) and the [Environmental Modification Convention](#). Lawsuits filed on behalf of both US and Vietnamese veterans sought compensation for damages.
- Agent Orange was to a lesser extent used outside Vietnam. It was first used by British Armed Forces in Malaysia during the [Malayan Emergency](#). It was also used in neighbouring [Laos](#) and [Cambodia](#) during the Vietnam War because forests on the border with Vietnam were used by the [Viet Cong](#). Some countries, such as [Canada](#), saw testing, while other countries, such as [Brazil](#), used the herbicide to clear out sections of land for agriculture.

Major Tỵ Đức Phang was exposed to dioxin-contaminated Agent Orange.



A person with [birth deformities](#) associated with prenatal exposure to Agent Orange^[d]



Gates drinks water filtered by the OmniProcessor, a new kind of sewage treatment plant funded by his philanthropic foundation.



Peter Janicki and Bill Gates fill their glasses with water from the OmniProcessor



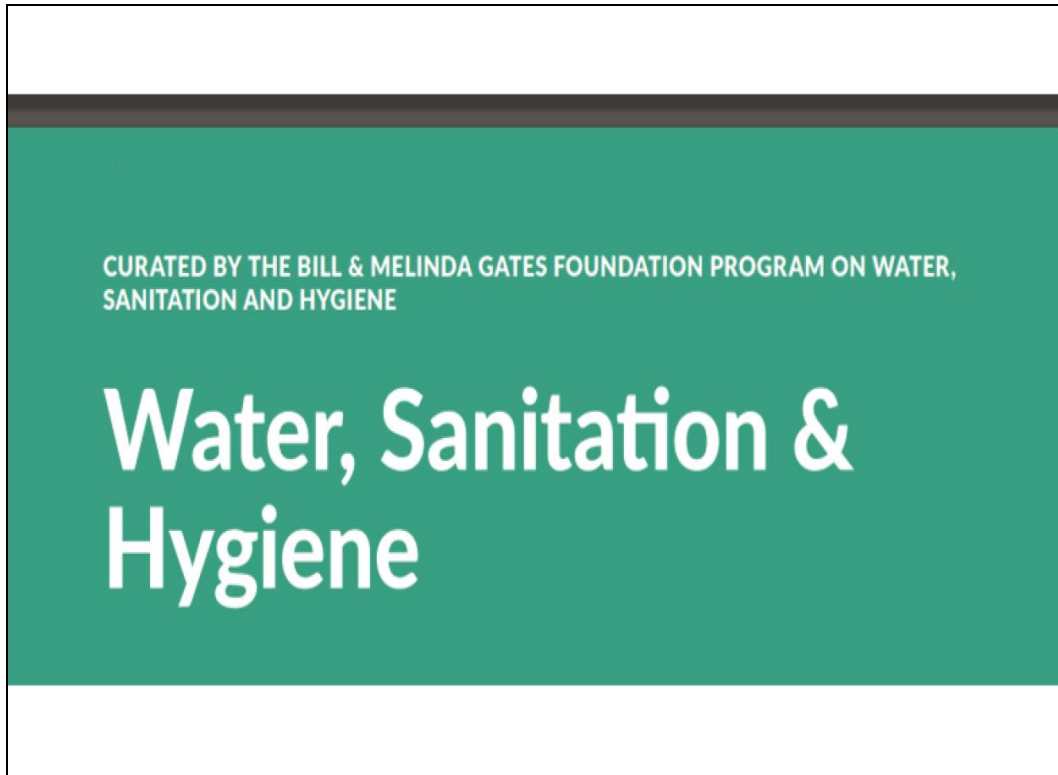
Omni Processor

From Wikipedia, the free encyclopedia

- **Omni Processor** is a name proposed by the [Bill & Melinda Gates Foundation](#) for a group of physical, biological or chemical treatment processes to process [fecal sludge](#) – a mixture of human [excreta](#) and water – in developing countries. One of the main treatment aims is [pathogen](#) removal to stop the spread of disease from fecal sludge. The term was created by staff of [the Water, Sanitation, Hygiene Program at the Bill & Melinda Gates Foundation in 2012](#).^[1] It is not a trade mark for one specific product or technology. Several research teams are currently developing various types of omni processors with funding from the foundation. Examples of technologies which Omni Processors may employ include [combustion](#), [supercritical water oxidation](#) and [pyrolysis](#).
- The term "omni" in its name refers to the fact that an Omni Processor machine can process a variety of waste streams or fuel sources.

Omni Processor pilot plant by Sedron technology treating fecal sludge in [Dakar](#), Senegal





How Bill Gates Aims to Save \$233 Billion by Reinventing the Toilet

By [Jason Gale](#) Bloomberg 2018년 11월 6일

[Bill Gates](#) thinks toilets are a serious business, and he's betting big that a reinvention of this most essential of conveniences can save a half million lives and deliver \$200 billion-plus in savings.

The billionaire philanthropist, whose **Bill & Melinda Gates Foundation spent \$200 million over seven years funding sanitation research,**

showcased some 20 novel toilet and sludge-processing designs that eliminate harmful pathogens and convert bodily waste into clean water and fertilizer.

- **THE PROBLEM** Poor sanitation contributes to over 500,000 child deaths from diarrhea each year. By improving how we deal with human waste, we can save lives, improve child health, and ensure greater dignity, privacy, and safety, particularly for women and girls. Better sanitation also contributes to economic development, delivering over \$5 in social and economic benefits for every \$1 invested. The following organizations work to bring safe drinking water and effectively prevent waterborne disease transmission.

THE CURATOR The Bill & Melinda Gates Foundation's Water,

- **THE CURATOR** The Bill & Melinda Gates Foundation's Water, Sanitation & Hygiene program focuses on developing innovative approaches and technologies that can lead to radical and sustainable improvements in sanitation in the developing world. They focus their grantmaking in five areas: transformative technologies, urban sanitation markets, building demand for sanitation, policy and advocacy, and monitoring and evaluation.

- Now that a prototype is up and running in Washington, the foundation hopes to bring the OmniProcessor to India, Africa, and other developing parts of the world, saying that each roughly \$1.5-million plant can process sewage for a community of about 100,000 people. "If you can get thousands of these things out there, then you've ensured the people really will grow up in a healthy way," Gates says. "They'll live much higher quality lives. You will save a lot of lives. And you'll have local entrepreneurs who are maintaining these things."

- The potential benefits are enormous. Forty percent of the global population—or 2.5 billion urban residents—practice open defecation or otherwise lack adequate sanitation, and an additional 2.1 billion urban residents use facilities that do not safely dispose of human waste. About 1.5 million children die every year from contaminated food and water, and in developing countries, half of all patients in hospitals are there because of problems with water and sanitation. What's more, all this puts an economic strain on such countries. In India, bad sanitation practices costs the country nearly \$54 billion a year, or 6.4 percent of its GDP.



Greta Thunberg first began skipping school in August 2018, sitting in front of Swedish Parliament to demand climate action
Michael Campanella



"We can't just continue living as if there was no tomorrow, because there is a tomorrow," she says, tugging on the sleeve of her blue sweatshirt. "That is all we are saying."

- It's a simple truth, delivered by a teenage girl in a fateful moment. The sailboat, *La Vagabonde*, will shepherd Thunberg to the Port of Lisbon, and from there she will travel to Madrid, where the United Nations is hosting this year's [climate conference](#). It is the last such summit before nations commit to new plans to meet a major deadline set by the Paris Agreement. **Unless they agree on transformative action to reduce greenhouse gas emissions, the world's temperature rise since the Industrial Revolution will hit the 1.5°C mark—an eventuality that scientists warn will expose some 350 million additional people to drought and push roughly 120 million people into extreme poverty by 2030.** For every fraction of a degree that temperatures increase, these problems will worsen. This is not fearmongering; this is science. For decades, researchers and activists have struggled to get world leaders to take the climate threat seriously. But this year, an unlikely teenager somehow got the world's attention.



- In May 2019, Thunberg was featured on the cover of *Time* magazine, which named her a "next generation leader" and said that many see her as a role model.^[6] Thunberg and the school strike movement were also featured in a 30-minute *Vice* documentary titled *Make the World Greta Again*. Some media have described her impact on the world stage as the "Greta effect".^[7] Thunberg has received many honours and awards, including honorary fellowship of the *Royal Scottish Geographical Society*, and in 2019, *Time* magazine named her one of the *100 most influential people* and the youngest individual *Time Person of the Year*. In September 2019, she addressed the *UN Climate Action Summit* in New York. Thunberg was also nominated for the 2019 *Nobel Peace Prize*.^[8]

"Materials" for Society and Industry

As practiced @ NM-AIST

Biogas

Solar

Nanofilter™



GONGALI MODEL
Manufacturer & Supplier of Water Nanofilter (Gongali Model)
Winner of Africa Prize 2015

Lantern

The Nelson Mandela African
Institution of Science and
Technology (NM-AIST)



Askwar Hilonga; PhD, M.Sc (Chem.Eng), MPH, B.Sc

1. Lecturer at Nelson Mandela African Institution of Science and Technology
(Dept of Materials Science; Specialized in NANOTECHNOLOGY)

2. Pioneer of The GONGALI MODEL: www.gongalimodel.com

3. Director of TAHUDE Foundation: www.tahudefoundation.org

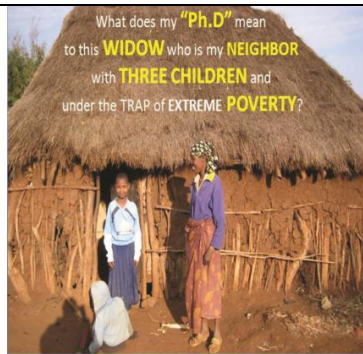
4. Husband of one; Father of two

Email: gongalimodel2025@gmail.com; Facebook; twitter@Askwar

Phone: +255764574919







What does my "Ph.D" mean to them?



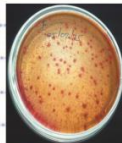
Table 1: Reported Waterborne Diseases at the Gongali Hospital from 2011 – 2013 (Source: TAHUDE Foundation 2013 Report)

Reported Disease Cases in Gongali	2011	2012	2013
Internal Worm	264	198	278
Typhoid	108	92	123
Diarrhea Fever	369	390	301
Blood Diarrhea	24	11	7
Cholera	8	0	0
Total – Waterborne Diseases cases	773	691	709
Total – All Diseases	5200	7997	6405
% of Waterborne Diseases	15%	8.6%	11%



1.5 L water is \$1 – But GDP (Nominal) is \$ 553*
*IMF Report 2012 – 04 – 22

Reported Disease Cases in Gongali	2011	2012	2013
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Side Effects

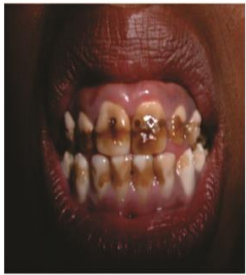
Heavy Metals



In Tanzania:
Over 70% of the population
are living without safe water.

Health cases: Arusha, KLM,
Mwanza, Dodoma, Mara &
Tabora.

Fluoride



New Design



Photo: 1st Oct 2019



(i) Single-Nanofilter

(iii) Tetra-Nanofilter

(ii) Double-Nanofilter





IMPACT - by
2019

- **90** Nanofilter Water Stations
- Beneficiaries: **250,000**
- Sold to **73** institutions and **700+** households
- **90** employments for young ladies / many are waiting to be employed as soon as the Kiosks are established
- About **130** other self-employed people / local entrepreneurs, welders, artists/designers, guards, premises owners, etc.



17 Awards



National Health Innovation Award, 2015



IChemE
Institution of Chemical Engineers



Greetings From the Nanofilter TEAM in Arusha

Comment on Rev. Sun Myung Moon's Centennial

Dr. Jong Choon Woo

Honorary Professor Kangwon National University, Korea

Good afternoon, My name is Jongchoon Woo and I'm an Honorary Professor at the Kangwon National University.

It is a great privilege for me to be speaking at this conference today. I believe 2020 is a very important year in human history, which marks the 100th anniversary of Reverend Sun-Myung Moon's birth.

Before I begin, I would like to quickly mention that I enjoyed listening to both Dr. Wilson and Dr. Nishikawa's presentations. I think Dr. Wilson successfully explained the attempt to unify religion and science-based on Reverend

Moon's "Original Text of the Divine Principle" from 1951, and Dr. Nishikawa explained well Reverend Moon's efforts and meaning for world peace through his "International Highway Undersea Tunnel Project."

As you all know, the theme of today's conference is "Academic Integration and World Peace."

As a scholar in Forest Science, I would like to share a few words. One of the important issues that emerged in the 21st century is environmental problems. Climate change, global warming, and air pollution are no longer considered natural disasters. In other words, global environmental problems can be improved or solved by human efforts.

Much of the global environmental issues are being discussed in the forestry sector. To fundamentally understand the sustainability of forests, three possible relationships between nature and humans can be considered.

The first is that "humans dominate nature." This corresponds to the Christian view that has dominated most of the Western ideology as they sought to tame the wilderness and use all resources for human purposes.

The second is that "humans co-exist with nature." This comes from the wisdom of Native Americans who have lived in harmony with nature and is consistent with the views of the environmentalists who believe that there are limited resources on Earth. And the third is that "nature dominates humans." Although not as popular, it is a view with increasing merit as we contemplate global warming and melting glaciers.

American ecologist Lynn White Jr. partly pointed out the anti-ecological risks in science and technology, seeing the scientific world view as the Western Christian world view, and

raised the issue of the global environmental problem by revealing the anti-ecological and environmental aspect of the Christian's view on nature.

Dr. White warns us by mentioning the following in his paper from 1967, "The Historical Roots of Our Ecological Crisis": "What we can do about the earth's ecology depends on our way of thinking about the relationship between humans and nature. No science or technology can escape the current ecosystem crisis until we discover a new religion or fundamentally reconsider the human-centered philosophy and religions of our time."

Here, Dr. White is arguing that the crisis of the global environment is due to the Christian view of the natural domination of humans, which was pointed out earlier.

Dr. Arnold Toynbee, a British historian, also warned that the cause of pollution is the destruction of nature, which is caused by humans' mismanagement of it, and this idea of Natural Domination is rooted in Western Christian ideology.

In the forest sector, we came up with the "Idea of Sustainability" and "Normal Forest Thinking" to overcome the deforestation period in Europe that occurred from the middle of the 16th century.

In the timber industry, an ideological system was established to balance supply and demand. Since most of the destruction occurred in forests, this "Forest Thought" provided important clues to solving environmental problems. This has become the foundation for establishing sustainable forest management principles today.

Reverend Moon introduced the "Unification Thought" during his lifetime. This sought to pursue ideological unification by covering various philosophical systems and ideas that have developed with history. The basic principle of the "Unification Thought" is the "Law of Giving and Receiving".

The relationship between humans and nature can be discussed with this Law. It is possible to restore the relationship between one another through the idea that humans and nature give and receive well and mutually, and at the same time, provide momentum for the ultimate reconciliation between humans and nature for harmonious coexistence.

I would like to conclude with Rev. Moon's words from March of 2000. "Those who do not know how to love people cannot love nature. Those who do not know how to love nature cannot love people. That is God's work.

Love nature and people, and live with God's true love"

Thank you.

Comment on How can Science & Technology Contribute to Solve Future Challenges?

Dr. Kim, Gi Eun

Prof., Dept. Biotechnology, Seokyeong University, Korea

There are many challenges to solve in the 21st century. First of all, the population will continue to grow on Earth. Future climate change is unpredictable. Restraint of migration can be achieved through stabilization of underdeveloped areas. At the same time, it is necessary to deal with the increase of freshwater resources and food production. And political and military tensions between the major forces on the planet are increasing in relation to economic impacts and resources.

1. World Population

According to the UN reports the world's population will be increased to ca.10 billion by 2050 on Earth. Especially there will be the half of this population number in the African region.

2. Climate Change

Almost every day any kinds of catastrophic news from all over the world are covered in newspapers and the media. Life and natural resources are devastated by monster storms, floods, droughts and wildfires. Despite numerous scientific studies and progress, we cannot predict it accurately in the future. Global warming and many changes on Earth have been announced by many scientists in connection with the rapid increase in greenhouse gas concentrations in the atmosphere. But our experience is more extreme than expected.

3. Water and Food

Earth's high temperatures can change the weather system and the water circulation patterns. As a result, much more severe storms and droughts can occur in other regions. Today we know that all these phenomena are in greenhouse gases. What can we do? We are working on gas emission project and business for climate change around the world. The climate change is an important motivation for all sectors, including energy, environment, biological and chemical industries, and agriculture. Restraint of migration from variable underdeveloped region can only be established just with economical and political stabilization of these places.

4. Science for Peace

Peace in the society needs food, energy and a good economic system. These basic elements require an industry that can be established by science, technology and investment. For example, engineering can support building social peace and equalities with supplying local energy. Biogas can be produced from animal manure and other all kinds of bio-waste. The residues for this process can be transformed to fertilizer. By conversion of animal manure into energy in a small plant, pollution in the area also can be eliminated. Through sparing firewood and without manure problem more livestock can be raised. Such a mini-plant with science and technology for biogas production can provide many kinds of opportunity, also for carbon reduction. A local circular economic system can be accomplished.

5. Conclusion

5-1. Agriculture is dependant on climate and weather conditions. Average temperatures and rainfall have a significant impact on harvest, nutrition and product value, followed by the economic income of the farm. Due to climate change the types of crops also have been changed from region to region. Innovative and creative ideas around the world for agriculture business will be very useful. Science without industrialization process is less meaningful. Policy and strategy based on scientific data can help the agricultural industry.

5-2. Peace in human society requires a perspective of correct political and economic development. The developed countries of the world were able to maintain a peaceful atmosphere even after World War II. Most of these countries developed science and technology in the early days of the first and second industrial revolutions, reaching economic fruits and social wealth.

5-3. Scientific research is conducted on the analysis of the causes of human aggression, conflict and terrorism. It is hoped that science will someday provide practical solutions for violence control and applications for peace on Earth. In addition political stability and economic development will improve security around the world.

5-4. Dr. Ramirez mentioned about analyzing examples on the many challenges to security. In the positive side of the balance, artificial intelligence, robotics, biotechnology and on the other, driving insecurity, social disintegration, global inequalities, corruption, uncontrolled mass migrations, and especially enforced refugee-displacements. He and his colleagues emphasized encouraging creative discussion between scientists and policy-makers. It will be able to strengthen security on all aspects, including the Korean Peninsula, and promote cooperation and policy development for the future. Finally, science is not compatible with God. The more you know about science, the more fascinated you are with sacred things. On the contrary, Benedict XVI reflected that "Science without God leads to Auschwitz."



2020 World Peace Academic Conference

Section 2

A Vision for World Peace

Reverend Moon's Contribution to the End of the Cold War and a Vision for World Peace^{1*}

Dr. Thomas J. Ward

President and Professor of Peace and Development

Unification Theological Seminary, USA

Sun Myung Moon became a household name in the United States and in many other parts of the world in the 1970s. This text recognizes the lack of awareness of the many serious dimensions of his work and, in particular, his sense of calling to address the Cold War heightened in its level of threat by the pervasiveness of nuclear weapons that held the world hostage. If the communist world that produced Josef Stalin, Mao Zedong, Pol Pot, and the Berlin Wall represented the bad side, that side had plenty of shortcomings in the democratic world to point to, including dictatorships in Latin America, the Middle East, across "Free" Asia, as well as Apartheid in South Africa and what was then known as Rhodesia. Dominated by self-interest, a decline in moral values, and, for several decades, a laissez-faire approach to injustices committed in the developing world so long as the perpetrators of such acts were "allies," The West needed to be challenged, reminded of what was honorable in their founding and be engaged not only by arguments but by example. Reverend Moon's legacy is still not well understood. Here we concisely reference some of the humanitarian and value-inspired dimensions of work carried out by him and by his spouse Dr. Hak Ja Han Moon. More substantively, however, we outline his initiatives aimed at addressing the ideological and related dimensions of the Cold War and his efforts to circumvent a conflict that potentially could have led to the annihilation of so many of the noble dimensions of the human experiment.

Reverend Sun Myung Moon lived until the age of 92; he spent the last days of his life in Cheongpyeong, Korea, which this World Summit, commemorating the hundredth anniversary of his birth, will visit in the coming days. He and his wife Dr. Hak Ja Han Moon spent some forty years of their lives together in the West and primarily in the United States. They came to the United States, not because they wished to establish permanent residency and live their

¹ While the first nine pages of this article are largely new, the latter part of the text is excerpted with minor editing from an article that I wrote for the Fall 2017 *International Journal of World Peace* entitled "Reflections on a Civil Society Actor and Conflict Transformation on the Centennial of the Bolshevik Revolution."

* This paper is Working Draft

version of the “American Dream.” They came to the United States because they saw it as a country that had been prepared by God to impact positively upon world culture and governance, while also serving as the best place from which to launch what Reverend Moon referred to on July 1, 1973 as “the March to Moscow.”

Misunderstood and frequently characterized by the Western media as a right-wing “Korean industrialist” and a “religious charlatan,” Reverend Moon left behind a legacy that those who review it carefully have to be spellbound by because of the unrivaled number of achievements that he realized during his nine-plus decades on the earth.

Early on, less than a year after the end of World War II, Reverend Moon, safe in the US-protected portion of Korea, did what few others dared to do. When he felt called by God to return to travel to the North and to its capital city of Pyongyang, not far from his birthplace, to begin missionary activity there, he did not hesitate to do so, even though a communist regime with draconian levels of control had been installed with the help of Stalin and his Soviet proxies.

Japan, in its ambitious drive to become an imperial power annexed the Korean peninsula into its Empire in 1910, some fifteen years after Taiwan had also become an imperial colony. Following the war in exchange for the Soviet Union having agreed to declare war on Japan in the final ten days of World War II, the United States rewarded the U.S.S.R. not with control of a part of Japan as it had done in the case of Germany. But, ironically, it allowed the Soviets to take control of the fate of the northern portion of Korea, Japan’s former colony. Korea, which had already endured four decades of colonial control, found itself once again a pawn in the maneuvering of the world’s new “ruling powers.”

Rev. Moon, at the time only 26 years of age, traveled to the North. He arrived on June 6, 1946. Within fourteen months of his arrival, he was arrested and tortured for his evangelical activities. On September 18, 1947 he was badly beaten by North Korean interrogators for his “subversive” religious activity in a country whose leader Kim Il Sung, in spite of his Presbyterian roots, embraced the Marxist critical view of religion serving as a means to preserve and justify capitalism’s oppressive structures rather than religion’s asserted intent to free humankind of the burden of sin, guilt, and spiritual confusion.

In February 1948 Reverend Moon was sentenced to five years in prison. As a prisoner of conscience, he endured beatings, near starvation, disease, and a seemingly unending regime of hard labor. He escaped in October 1950 when Heung Nam Prison, where he had been confined, was liberated by United Nations forces that arrived approximately one month after General Douglas MacArthur’s remarkable landing of UN military forces at Incheon, South Korea over a four-day period in mid-September 1950.

Following his release, Reverend Moon returned to Pyongyang to attempt to gather those followers whom he had left behind at the time of his imprisonment. Given the disarray and

havoc resulting from the war, he had difficulty relocating most of the members of his Pyongyang congregation, some of whom had been imprisoned, others who had been tortured and killed and still others who either escaped to the South or hide for protection, Reverend Moon left the North with only two of his followers. He traveled by foot to Pusan, the southernmost city on the Korean peninsula, arriving at the end of December 1950. His future wife Hak Ja Han, just a young girl, escaped from the North at about the same time.

Beginning from Pusan, Reverend Moon began his ministry, spending most of the next twenty-one years in Korea and then moving on to the United States where he would spend an additional forty years.

He would create what Swiss writer Jean-Francois Boyer would refer to disparagingly as the “Moon Empire.”² A part of the Empire everyone seems to be aware of is the media “empire” including the *Washington Times* in the United States, *Sekai Nippon* in Japan, and *Segye Ilbo* in Korea. Another part that gathered significant attention was CAUSA International, an organization that first developed in Latin American and then reached out to other parts of the world, highlighting the threat that communism posed to the world because of the sanguinary implications of the application of Marxism-Leninism in any of the societies, which embraced and implemented it.

Unheralded Dimensions of Reverend Moon’s and Dr. Hak Ja Han Moon’s Work

While the focus of this paper is the role that Reverend Moon played in the ending of the Cold War. I do want to note before entering into that topic that Reverend Moon and Dr. Hak Ja Han Moon were about improving the well-being of all of humanity. Again, it would not be appropriate to divert too far from the central topic here, but I want to recognize a few, certainly not all of the humanitarian projects initiated by the Moons. These necessarily include the humanitarian work of organizations founded by Reverend Moon and Dr. Hak Ja Han Moon that are especially tasked in the humanitarian domain, including Women’s Federation for World Peace (WFWP), the International Relief Friendship Foundation (IRFF), Causa World Services and Religious Youth Services (RYS). These organizations, and WFWP, in particular, literally poured millions of dollars into supporting the building of schools for primary and secondary education in Africa and Latin America. WFWP offered scholarship opportunities for students in developing countries to pursue university-level study in the United States, Europe and Asia. IRFF, WFWP and CWS facilitated the distribution of food to victims of war and natural disasters in the Dominican Republic, Haiti, Bolivia, Japan, Burma, Nicaragua, and Democratic Peoples’ Republic of Korea. IRFF medical teams from Japan and the United States have also provided free medical care for years to those afflicted by war and natural disasters in Southeast Asia, in Africa, and in Central America.

² Jean Francois Boyer, *L'Empire Moon*, (Paris: Editions La Découverte, 1986).

The Moons established accredited institutions of higher education in Asia³ and in the Americas that have provided full scholarships for undergraduate and graduate students from the developing world. Following the Cold War, the Moons salvaged the University of Bridgeport just as it was about to close. In the decade that followed, they brought young, promising leaders from Africa, Latin America, Eastern Europe, and Southeast Asia to Bridgeport, providing them with full scholarships to study there, when the majority of these students would never have been able to do so otherwise.

The Moons sponsored conferences through the Professors World Peace Academy beginning in 1973 to further dialogue amongst feuding parts of the world. Long before, it was permitted in those countries, he promoted and created venues for dialogue between those who supported and those who endured Apartheid, and between Palestinians and Israelis at a time when such exchanges were forbidden, as well as other feuding parties.⁴

Reverend Moon constantly reminded us that he felt personally responsible to find a way to feed a world where he constantly grappled with hunger, with the reality that 21,000 people, many of them infants and young children, still die of hunger every day.⁵ He initiated vast efforts to raise cattle, develop fish-farming, protect the land through reforestation and other projects aimed at educating people from less developed countries about how to increase and stabilize food production while insuring sustainable development and protecting South American waterways and wetlands, notably in Brazil and in Paraguay through what is known as the Pantanal Leda Settlement.⁶ He sponsored youth leaders from Africa to learn the techniques being developed. Dr. Hak Ja Han Moon also recently invited African leaders to study and adapt the techniques that they had developed in Hawaii to build a highly successful coffee industry, which can be implemented in African countries with the appropriate climate for coffee.

Reverend Moon and Dr. Hak Ja Han have also long been concerned by the potential of an eventual conflict between the followers of Christianity and Islam. They have encouraged others to recognize the positives and the ways in which the Creator has worked through every major faith. They themselves have dedicated their large-scale outreach efforts through organizations that they have created such as Inter-Religious Federation for World Peace⁷ to foster understanding among faiths and support reconciliation over past divides. They continue to sponsor an annual dialogue amongst women leaders of the region through

³ Hyo Jeong Universal Peace Academy Graduate School in Korea, Sun Moon University also in Korea, International Peace College in the Philippines and Unification Theological Seminary in the United States.

⁴ Partial listing of several hundred PWPA Conferences that took place from 1974 until 1999 can be found here <https://www.pwpa.org/pwpa-conference-list/>. A record of more recent PWPA activity is available here <https://www.pwpa.international/>.

⁵ *Voice of America*, "World Hunger Day," May 28, 2019, accessed on January 20, 2020, <https://editorials.voa.gov/a/world-hunger-day-2019/4935420.html>.

⁶ *Pantanal Leda Settlement*, last accessed on January 16, 2020 <https://www.ledaproject.com/history-and-motivation>

⁷ Inter Religious Federation for World Peace, accessed on January 20, 2019, <https://www.irfwp.org/wp/>

the Women's Federation for World Peace International. The 24th annual conference took place in November 2019.⁸ The Universal Peace Federation⁹, a key partner in the World Summit, also remains keenly involved in Middle East initiatives through the work of Dr. Thomas Walsh, Dr. Michael Jenkins, and Dr. Taj Hamad.

In 1972 Reverend Moon initiated the International Conference on the Unity of the Sciences (ICUS) to study “science and absolute values.” By “absolute values” Reverend Moon was referring to those values which, rooted in longstanding religious and cultural traditions, further the purpose of all human beings, each of whom, as a Creation of God, is understood to be a being with Divinely endowed value and potential. Many scientists from communist countries and scholars attended these global gatherings of scientists around the world.

Yes, Reverend and Dr. Moon, as this particular session punctuates, have worked based on a vision for peace. Did they claim that theirs alone was a complete vision? No, they did not.

It is a developing vision. Indeed, the teachings and public lectures of Reverend Moon and Dr. Moon promote the view that each human being is what is referred to in Unification teachings as an “individual truth body.”¹⁰ What this means is that each of us carries something within us that separates us from everyone else and indeed is what is referred to in Unification Thought as our particular “genius.”

On this occasion that marks the centennial of Reverend Moon's birth, we are invited to reflect on and develop a greater understanding of his vision of peace and our speakers are encouraged to share their own based on their experiences. I would like to devote the remainder of this article to share what I understand as the Moons' vision for peace, having worked in this movement for almost half a century and having had the good fortune to have worked closely with the Moons during a quarter of a century. I also welcome the visions and perspectives that each of you bring to the table during these sessions that we are fortunate enough to be able to share together.

1946-1972 Reverend Moon's Initial Efforts in Korea and his Approach to Peace there and internationally

Following the end of World War II, Reverend Moon began what has been described as his “public ministry.” During that period, he understood that he was not meant to create a new church or a new religion. Instead he felt called to build on what was already in place and support the established churches and religions. With his efforts to reach out to the Christian world, he faced rejection. In some ways, this was understandable because of his

⁸ Women's Federation for World Peace International, 24th Annual Women's Conference for Peace, November 15, 2019, accessed on January 16, 2020 <https://www.wfwp.org/news/24th-annual-womens-conference-for-peace-in-the-middle-east>

⁹ Universal Peace Federation, accessed on January 20, 2020, <http://www.upf.org/>.

¹⁰ *Essentials of Unification Thought—The Head Wing Thought*, “1. The Universal Image of the Individual Truth Body,” accessed on January 20, 2020 <http://tparents.org/Library/Unification/Books/Euth/Euth02-01.htm>.

challenging assertion that he had not only had a spiritual encounter with Jesus but that he had been charged to complete the task that Jesus had begun some 1900 years before.

When he could not find safe harbor for his message within the Christian world and, after seven years of attempting to do so, he did finally, and with reluctance, begin his own **Holy Spirit Association for the Unification of World Christianity** less than a year after the armistice agreement concluding the Korean armed conflict.

Shortly after this, he also began a movement aimed at educating the Korean public about the ideological limitations and false assumptions within the Marxist worldview, the pervasive ideology of the Democratic Peoples' Republic of Korea, South Korea's neighbor to the immediate North. Reverend Moon began his work with one of his early follower Mr. Yong Seok Choi. A few years later, he began what would be a four decade-long collaboration with Dr. Sang Hun Lee. Based on his own experience with Marxism-Leninism during his imprisonment in North Korea, Reverend Moon had identified crucial limitations within the Marxist worldview. One of those remains as a personal learning experience for me until this day.

When I met Reverend Sun Myung Moon for the first time in March 1972, I was thrilled by the prospect of having a chance to listen to him over three days in a very intimate setting of only some forty people. I looked forward to him addressing a variety of topics. However, I had reservations about what I understood as his decidedly negative view towards Marxism-Leninism.

When I came to hear him at that time, I anticipated that he would inform us, as Stephane Courtois did decades later in *The Black Book of Communism*, of the ways in which the population of the USSR had been decimated under Stalin's dehumanizing rule or of how Mao's megalomaniacal pursuit of "revolutionary immortality" had allowed him to brutalize tens of millions during his delusional Great Leap Forward followed by his senseless annihilation of at least an additional one to two million more during the Cultural Revolution.

I had little sympathy for an argument that focused on the "cost" of communism. I was painfully aware of the damage caused by so-called anticommunist governments such as the Republic of South Africa, which enforced Apartheid; and the Dominican Republic which had destroyed the lives of so many Haitians under the regime of Rafael Trujillo. I was also aware that the dictatorships of Gen. Park Chung Hee of South Korea, President Ferdinand Marcos of Philippines, and Generalissimo Chiang Kai-Shek in East Asia had each suppressed and annihilated tens of thousands who had dared to challenge their authority.

My concern had been that Reverend Moon might list all of the wrongdoings of the communist Left while maintaining silence regarding the atrocities and the wrongdoings committed in hardline, rightist, so-called anticommunist regimes. However, he mentioned neither of these matters in his talk to us.

He uttered not a single word about Stalin or Mao but instead he went to the very crux of the matter, to the metaphysical underpinnings of communism, or what Russians referred to as the “*Diamat*,” that is dialectical materialism. He demonstrated that this dynamic in which conflict was defining and unity was ephemeral was not the way in which the universe functioned. He simply observed a principle from his religious teaching, clarifying that the relationship, for example, between a proton and an electron, as argued by Engels and even by the Soviet ideologue Victor Afanasyev still at that time in the Soviet Union was not a conflicting, subject-subject, adversarial relationship as Engels had indicated but instead a cooperative, reciprocal relationship. What Engels had depicted in the *Dialectics of Nature* as a conflict in a seed between the covering or seedcoat and the developing embryo within was not one where the seed coat hardened and became more resistant as the embryo grew. In fact, it become more supple as the embryo advanced towards maturity, facilitating the emergence of the sprout at the proper moment. This, he made clear, represents a reciprocal rather than a confrontational dynamic.

When I heard Reverend Moon’s explanation of this dynamic, my fear of communism being “true” but wrongly implemented dissipated. I recognized, like the socialist reformer Eduard Bernstein did in the late 19th century, that although Marx may have had good intentions in his effort at addressing injustice, his formula that rationalized change was untenable. As Bernstein put it, Marx was not great because of the dialectic but in spite of it.¹¹

Yet it was that very dialectic that inspired Lenin, Stalin, and Mao and justified their revolutionary, genocidal zeal and led them all to elaborate further on dialectical materialism. Through Rev. Moon’s analysis, I understood that they were misguided and that communism, had misinterpreted the underlying dynamic of nature, and was thus destined to fail in its efforts to create a new, just society.

Living in France and a student at the University of Paris at the time when I met Reverend Moon, I had numerous encounters with French Marxists both before and after that, my first meeting with Reverend Moon. Prior to that meeting, I had the impression that Marxism was true but that it had been poorly applied. Following that meeting, when I challenged Marxists regarding the veracity of the materialist dialectic as the underlying dynamic for progress in nature and in society, I found that they were unable to refute the explanation of cooperation and give-and-receive reciprocal relations as the main dynamic through which multiplication of living beings and maintenance of order in atoms, ions, and matter were established and preserved.

A few years later, I was exposed to the entire body of Rev. Moon’s and Dr. Sang Hun Lee’s work on communism. I realized that his work had covered every aspect of communism:

¹¹ John Rees, *The Algebra of Revolution*, p. 127. Accessed on January 20, 2020, <https://books.google.com/books?id=05iEAgAAQBAJ&pg=PA127&lpg=PA127&dq=Bernstein+not+great+because+of+the+dialectic+but+in+spite+of+it.&source=bl&ots=Yn8aZXLLxU&sig=ACfU3U0G-RS9D07Wb0ryN8sDBbCcdvNqkQ&hl=en&sa=X&ved=2ahUKEwjzta2xxpPnAhXIMd8KHWrjDeUQ6AEwAHoECAGQAQ#v=onepage&q=Bernstein%20not%20great%20because%20of%20the%20dialectic%20but%20in%20spite%20of%20it.&f=false>.

Marxist political economy including the Labor Theory of Value, the Theory of Surplus Value, and Marx's Laws of Economic Movement. It also pointed to the falsehood of Marx's View of History and Marx's interpretation of Alienation. I found each of those critiques as satisfying as the initial critique of Dialectical Materialism that Reverend Moon had introduced me to in Paris in that early spring of 1972.

A Few Comments on Reverend Moon's Critique of the Theory of Surplus Value

In this paper, I will not attempt to elaborate on all of the work that Reverend Moon did in this field but I will take a moment to comment on Marx's Theory of Surplus Value, which was described by Vladimir Lenin as the "cornerstone"¹² of all of his work. Marx maintained that in the production of any commodity, there were three contributors to the transformation of raw or semi-raw material into a commodity: Raw or unfinished materials, machinery, and labor. Marx argued that the profit derived from the production process could not originate from raw materials because the cost of such materials remained unchanged or only varied slightly from one purchase season to another. Secondly Marx argued that Machinery wears out and thus monies have to be put aside in a depreciation account to replace such machinery. Marx thus concluded that the only source of profit was derived from laborers. In his view, capitalists put aside a portion of the just wages that laborers should receive for their profit. Laborers thus only received necessary or survival wages so that they could stay alive, reproduce, and assure a new generation of working people for the next generation.¹³

The Unification critique of the labor theory of value observes that there is no magic principle whereby, once the funds in the depreciation account have reached the sum necessary for a new machine, the machine ceases to function. Many times, particularly in modern practice, the depreciation of the machine is covered in accounting ledgers in as little as one year after their purchase. That allows such machines to contribute to profit for the remainder of their shelf-life and not just laborers.

More importantly, however, Unificationism points out that the essence of value is found not in labor alone. Labor is one form of creativity but numerous other types of creativity also exist including the creativity of the inventor, the designer, the entrepreneur, the marketing director, the sales person, the advertising agent, even the investor who decides that a given product is worth dedicating a portion of his capital.

The labor theory of value also assumes that profit is automatic; it is not. Oftentimes, ventures collapse and owners can lose "their shirts." To assume that labor is the pivotal force for all profit was at the least naïve, and at worse calculating, provocative and cynical. Success

¹² Vitaly Vygodsky, "Surplus Value," *Great Soviet Encyclopedia*, accessed on January 20, 2020, https://www.marxists.org/archive/vygodsky/unknown/surplus_value.htm

¹³ Karl Mark, *Capital* Vol. 1, "Chapter Eight: Constant Capital and Variable Capital", accessed on January 20, 2020, <https://www.marxists.org/archive/marx/works/1867-c1/ch08.htm>

or failure in enterprise resides in human creativity not just labor. Human creativity is inherited from God, and propelled by the human drive to succeed and produce something of value.

In place of the Labor Theory of Value that Marx adapted from David Ricardo, Unification teachings speak of what is referred to as “the Effect Theory of Value.” According to the Effect Theory of Value where the Inventor or designer or the entrepreneur who acquires them should produce good that brings joy and inspiration to the consumer, first and foremost. It is only the secondary goal of such initiatives to earn a profit.¹⁴

According to the Effect Theory of Value, the consumer for his or her part should want to recognize and appreciate the efforts of the creator or distributor of a product that he or she chooses to acquire through the transaction. Secondly, it is the goal of the consumer to acquire a product at a reasonable price. I could resonate with this because of the developments which I had seen in the automobile industry during my early years of growing up in the United States. Most people my age in the United States can easily distinguish between a 1954, 1955, 1956, 1957, 1958, and 1959 Chevrolet or Ford. The changes in the model from one year to another were so dramatic that one soon felt uncomfortable traveling in a certain car that was a few years old. One would have to endure the jests of those reminding you that we were living in 1958 and the 1954 model of Ford hardly matched that.

When the Japanese automobile industry came onto the scene in the 1970s, they were soon well on their way to surpassing American automakers’ sales. Their approach to business was not motivated just by an immediate short-term profit but by their intention to build long-term service relations with those who purchased their automobiles. They did not do a “makeover” of their automobiles every year. They learned to build their automobiles to last and they also emphasized quality customer service and confidence-building customer relations. These dimensions of the Japanese automakers, in many ways, explained why they could advance beyond their favored American competitors. Buyers of Japanese automobiles felt cared for, appreciated, and connected to the Toyota or the Subaru family. This approach to sales and customer relations, in my view, approximate what Unification Theory describes as the Effect Theory of Value. Indeed, by the 1990s, the American automaker and auto sales culture had been drastically transformed and had largely adopted the Japanese paradigm, building cars to last with significant changes in automobiles design occurring only once every few years.

More can be said regarding the critique and counterproposal to Marxism-Leninism but this article will not delve further than we have gone until now. Interested parties can certainly consult original texts that are available that describe and also do a critical view of Alienation

¹⁴ Communism: A New Critique and Counterproposal, Questions and Answers, V. Economic Theories of Capitalism, accessed on January 20, 2020, <http://www.tparents.org/Library/Unification/Books/cncc/cncc-05.htm>

and Marx's view of history from the years when these topics were covered in international conferences and review such matters including the *Causa Lecture Manual* (1985).¹⁵

The On-the-Ground Trajectory of Addressing Ideological Issues

Once he had established a foundation for his church in South Korea, Reverend Moon collaborated extensively with Dr. Sang Hun Lee, a trained medical doctor and a former communist who had become one of his earliest followers. This research was largely completed in the 1960s and, from the 1960s through the 1980s, Reverend Moon's refutation of Marxism was taught extensively in Korea, Japan, the United States, Latin America, Southeast Asia, Africa, Australia, and Micronesia.

As already illustrated from my personal experience with him in 1972, Reverend Moon was not interested in distorting or presenting a caricature of Marxism's tenets. Rather, he was interested in real solutions to human problems that Marxism and Leninism had only made worse. Unification writings and presentations on communism consisted of an accurate articulation of each of the Marxist pillars of thought (The Concept of Alienation, Marxist Political Economy, Dialectical Materialism, and Marx's View of History), followed by the introduction of a critique and counterproposal based on Reverend Moon's analysis of the underpinnings of Marxism, and his conclusion that, regardless of the setting, Marxism-Leninism could not bring about a just society or elevate human dignity. Those materials from the 1960s and 1970s supplemented by the later elaboration known as the *CAUSA Lecture Manual* was taught throughout the world in the 1980s. It reached the highest echelons of the governments of the Philippines (during the Aquino administration), Thailand, Honduras, El Salvador, Uruguay, Peru, the Dominican Republic, Bolivia, Colombia, and many other countries that had been affected. In the United States, at one point more than 50% of all four star generals and admirals (active and retired) had attended a CAUSA seminar. Speakers at CAUSA programs included Geraldine Ferraro, Jack Kemp, John McCain, Maureen Reagan, Dr. Ralph Abernathy, and scores of other luminaries.

Reverend and Dr. Moon's Related Efforts in Other Parts of the World

At the same time, Reverend Moon founded the Professors' World Peace Academy (PWPA) in Korea and then Japan. The PWPA mission reads as follows: "The Professors World Peace Academy (PWPA) is an educational organization founded to support the academic community's role in the pursuit of world peace."¹⁶ Many of the scientists attending ICUS conferences joined PWPA, which established its international headquarters in the United

¹⁵ *CAUSA Lecture Manual* (New York: CAUSA Institute, 1985) accessed on January 17, 2020, <http://tparents.org/Library/Unification/Books/CausaLM/0-Toc.htm>.

¹⁶ Professors World Peace Academy, "Overview," <http://www.pwpa.org/about-2/> accessed on May 10, 2017.

States, and chapters in 70 countries in 1983. It has become an important resource and information center for dialogue and exchange amongst academics around the world.

Early academic critiques of communism took both the ideological and the human rights dimensions of the struggle into consideration. Among the most notable writers and scholars who had come to the forefront were Alexander Solzhentisyn, Andrei Sakharov, Natan Scharansky, Sidney Hook, Alain Besancon, Bernard Henri Levy, Leszek Kolokowski, Robert Conquest, and Richard Pipes. Any response to Marxism needed to recognize and build on the important contributions of such individuals and be cognizant and appreciative of the many other areas of academic pursuit that contribute to the furtherance of peace and development.

PWPA members like renowned University of Chicago political scientist Dr. Morton A. Kaplan and Alexander Shtromas built on their work and integrated the more moral and spiritual dimensions of Reverend Moon's thought into their critique. Shtromas, a lawyer trained at Moscow State University, considered himself to be one of the last "true believers" in Marxism in Russia in 1957 and he had a clear understanding of the inner workings of the dysfunctional system that it had created. After leaving the Soviet Union, Shtromas worked with Sidney Hook at the Hoover Institution, and later became professor of political science at Hillsdale College.

In 1985, while imprisoned in the U.S., Reverend Moon provided the PWPA funding for an international conference in Geneva, Switzerland, where 90 of the top world experts on communism discussed the iconoclastic "'Fall of the Soviet Empire': Prospects for Transition to a Post-Soviet World,"¹⁷ PWPA chapter presidents from 90 countries were invited to attend so they could explain the fallacies, dysfunction, and real goals of communism, as its evangelists and activists were still very active promoting revolution social turmoil. The conference resulted in a four-volume work entitled *The Soviet Union and the Challenge of the Future* (1989) and PWPA was recognized by the *National Interest* in Spring 1993, along with Zbigniew Brezinski, as being one of the two academic sources that rightly anticipated the demise of the Soviet Union.¹⁸

As already suggested, the critique and counterproposal to Marxism-Leninism developed by Reverend Moon's organizations concerned with Marxsim were comprehensive and based on the original writings of Marx, Engels and Lenin. Successors to these three such as Stalin, Mao and Pol Pot, for example, were downplayed. CAUSA, for its part, did not want to have its views dismissed because of citing figures whom mainstream communists might view as guilty of a new heterodoxy. The critique concentrated on four areas: Marx's views on Alienation (the Young Marx); Marxist metaphysics or dialectical materialism; Marx's views of history and Marxist political economy including the Labor Theory of Value that Marx had

¹⁷ Professors' World Peace Academy, "Second International Conference: "'The Fall of the Soviet Empire': Prospects for the Transition to a Post-Soviet World," August 20, 1985; <http://www.pwpa.org/events/second-international-congress-the-fall-of-the-soviet-empire-prospects-for-transition-to-a-post-soviet-world/> accessed on May 21, 2017.

¹⁸ *The National Interest*, No. 31, Spring 1993, "Sovietology: Notes for a Post-Mortem" by Peter Rutland, p. 111.

borrowed and built upon as well as his unique Theory of Surplus Value, the consequent Laws of Economic Movement and Lenin's Theory of Imperialism. In his explanation of Imperialism, Lenin pointed out that the West's colonies provided new markets where imperialist powers such as the United Kingdom and France could export not only finance capital but use that capital as leverage to pressure the recipients to purchase specified export products and benefit both from higher interest rates on capital exported overseas and likewise profits resulting from the sale of finished products to what Lenin described as the "backward countries." Imperialism, "the highest stage of capitalism," thus played a salvific role, prolonging capitalism's existence in Europe and allowing capitalism to spread "its net over all countries of the world."¹⁹ Lenin's thus emphasized the need for communists to foment revolution in "backward countries" as a precondition for revolution in the developed world or, as Lenin explained it, "The Road to Paris lies through Peking."²⁰

The *CAUSA Lecture Manual*, based on Reverend Moon's pioneering work with IFVOC and Dr. Sang Hun Lee, points out that Marxism's metaphysics and belief system, not just a wrong application of Marxism-Leninism, had devastating social implications. Communism's militant denial of God obviated the human identity as a child of God, and therefore a being of infinite value. Its advocacy of the dialectic served as an apologia for violence. Its dehumanizing views of capitalists and socialist revisionists justified, in their minds, purges of huge sectors of the human population. The suffering perpetrated under Lenin, Stalin, Mao, Ho Chi Minh, Kim Il Sung, Pol Pot, Castro, Ceaucescu and other communist "epic heroes" was thus not due to an "abuse" of Marxism-Leninism; it was a logical consequence of Marxism-Leninism.

In his book *Jesuitas, Iglesia y Marxismo 1965-1985*, Dr. Ricardo de la Cierva, a respected historian and the former Minister of Culture of Spain, wrote, "the CAUSA International Movement has published a lecture manual (1985) that seems to me to be the best generic study of Marxism from within the anti-Marxist camp."²¹ William Rusher an American conservative thinker and editor of *National Review* described CAUSA's work in this way:

"I have enormous respect for the work CAUSA does, for the analysis, which is clear, accurate and honest and looks in the round at these questions. These conferences are organized and conducted all over the United States to call to the attention of leadership personalities like yourselves the rather intricate aspects of communism that get overlooked in our daily debates"²².

CAUSA developed its new generation of instructional resources for the audiences that it targeted, largely state legislators and municipal leaders in the United States who eventually

¹⁹ Vladimir Lenin, *Imperialism the Highest Stage of Capitalism*, (NSW, Australia, 1999) p. 71-73.

²⁰ Robert V. Daniels, *Russia: The Roots of Confrontation*, (Cambridge, MA: Harvard University Press, 1985), p. 146.

²¹Ed. Thomas J. Ward, *An Idea whose Time has come*, (New York, CAUSA Institute, 1989), p. 22.

²² Ibid.

aspired to seek federal office and thus needed a better understanding of world affairs. Because of the interest that state legislators expressed in CAUSA's educational programs, this led first to three successful conferences that were co-sponsored by CAUSA and Dr. Cleon Skousen's National Center for Constitutional Studies. This in turn led to the creation of the American Leadership Conference (ALC), where Dr. Cleon Skousen was a frequent featured speaker. ALC conducted scores of major educational programs for legislators between 1986 and 1992, most of which took place in Washington, D.C. The ALC conferences focused on comparing the political systems of the communist and democratic spheres but also provided a substantive background on the underpinnings of Marxism-Leninism. It offered a critique of the Marxist worldview and contrasted Marxism's underpinnings with those found in American constitutional government and in the institutions associated with it. Follow-up field work for the ALC conferences in Washington, D.C. was done through the American Freedom Coalition (AFC), which, in the tradition of Christian Voice, also developed scorecards comparing the political values and voting records of the competing candidates for public office in targeted voter districts. Dr. Robert Grant, President of Christian Voice, served as President of AFC and the respected civil rights leader Dr. Ralph Abernathy who worked closely with Dr. Martin Luther King, Jr. for many years in the Southern Christian Leadership Conference (SCLC) served as the Vice President.

In Latin America, where Reverend Moon's education efforts had focused in the early to mid-1980s, he developed the Association for the Unity of Latin America (AULA). AULA's outreach centered on former heads of state. Some of the more notable heads of state involved with AULA included Peruvian President Belaunde Terry, Costa Rican President Mario Echandi, and former Mexican President Luis Echeverria Alvarez. Presided over by Ambassador Jose Maria Chaves, a seasoned Colombian diplomat and academic, AULA, in conjunction with a Pan-American board of legal scholars, researched and proposed a constitutional framework to deepen inter-state collaboration among Latin American states. AULA highlighted the value of an economic union amongst Latin American states to enhance leverage in trade and political dealings with the major powers of the time, including the United States, Japan and the European Union. The more than twenty Latin American heads of states closely involved with AULA also served as founding members of a broader expansion of activity through the Summit Council for World Peace (SCWP). SCWP brought together former statesmen from around the world to offer proposals and strategies on issues meriting international attention. The Summit Council, along with PWPA and the World Media Conference that we will discuss next added the leverage needed to "seal the deal" and facilitate the meeting between Reverend Moon and Soviet President Mikhail Gorbachev in April 1990.

Media Outreach

Reverend Moon also developed an international media network and started newspapers in Seoul, Tokyo, New York, Washington, D.C., Cairo, Buenos Aires, and elsewhere. An underlying editorial theme of all these papers was value-based reporting, world peace, and

the human family. Ultimately, the Washington Times became important for Reverend Moon's "March to Moscow."

The Washington Times, the World Media Association and Inroads to Moscow

Following his speech to an audience of 300,000 at the Washington Monument on September 18, 1976, Reverend Moon held a celebration on October 4 where he declared his intention to have his next rally in Moscow. Within three months after the 1976 declaration, Reverend Moon initiated a newspaper in New York, *Newsworld*, which later became the *New York City Tribune*. This daily newspaper was published from December 1976 until August 1985. Many of the reporters of the *Tribune*, including Bill Gertz and Josette Shiner, joined the *Washington Times* in 1983, which Reverend Moon had resurrected on the location of the defunct Washington Star. The *Washington Times* soon garnered a major readership in Washington, D.C. Within the first three years it became recognized as one of America's most quoted newspapers.²³ The three issues that appear below help to illustrate the *Times'* role in the Cold War.

Washington Times support for the Nicaraguan Resistance or Contras

The Washington Times' investigations and reportage lent credence to executive and legislative efforts to support the Nicaraguan Resistance forces or Contras, as they were known, in their efforts to derail that country's move into the Soviet-Cuban sphere of influence. When on April 24, 1985, the U.S. Congress voted down a bill to provide \$14,000,000 in humanitarian aid to the Nicaraguan resistance, *The Washington Times* took the U.S. Congress to task, announcing on May 6, 1985 its intention to seek private humanitarian funding for the Nicaraguan contras²⁴. The *Times* also provided the first \$100,000 seed money for the project. In its news coverage, the *Times* revealed a trip to Moscow immediately following the vote by Nicaraguan President Daniel Ortega Saavedra to secure additional Soviet aid. It also reported on new shipments of Soviet military supplies to Nicaragua²⁵. The *Times'* attention to this story continued until the Congress reversed its position in June 1985, resulting in a new \$27,000,000 commitment of humanitarian assistance to the Nicaraguan resistance²⁶, a decisive factor in the eventual wearing down of

²³ Alex Jones of *The New York Times* reported in 1985 that officials of *The Washington Post*, *The New York Times*, *The Wall Street Journal*, AP and UPI say that "they regularly review *The Washington Times* for news leads and pick up important news items." He called the *Times* the "third most-quoted newspaper in America," after only *The Washington Post* and *The New York Times*, and reported that AP alone cited the *Times* in more than 80 major dispatches from D.C. in 1985. *The New York Times*, May 26, 1985, p. 44.

²⁴ Arnaud de Borchgrave, "Editorial," *The Washington Times*, (May 6, 1985) : A1.

²⁵ *A Tribute* (Washington, D.C.: *The Washington Times*, 1990), "Our Times: The Life of an American Newspaper."

²⁶ The U.S. House reversed its April 24 position and passed on June 12, 1985, a bill for Contra nonlethal aid. The U.S. Senate reaffirmed on June 6 and June 20, 1985 its prior support for Contra humanitarian aid. A

the Sandinistas, allowing for the 1990 elections that brought Violeta Chamorro to the presidency.

***Washington Times* Support for the Strategic Defense Initiative (SDI)**

On November 1, 1983, *The Washington Times* produced a high profile, full-color article on the space-based anti-missile system known as the Strategic Defense Initiative (SDI). In its editorial policy, the *Times* rigorously advocated in favor of the system's development.²⁷ Indeed, when President Reagan unveiled SDI in a March 23, 1983 TV address, the *Times* editorialized that this address was "maybe President Reagan's best ever," adding that the idea of a space-based shield has "had our interest and support for months" and cited its potential leverage in future arms negotiations.²⁸ This advocacy by the *Washington Times* can be contrasted with the position taken by the *New York Times*.²⁹ The *New York Times* derided the program as "a pipe dream, a projection of fantasy into politics," "science fiction," and "dangerous folly," and described SDI as "a harebrained adventure that will induce a ruinous race in both offensive and defensive arms."³⁰ President Reagan's commitment to SDI, buoyed by the *Washington Times* editorial support led to a shift in the Soviet Union's policy. Whereas they originally demanded that the United States abandon SDI efforts in exchange for a reduction in the Soviet nuclear arsenal, President Gorbachev reversed this position. The Soviet Union accepted the United States' intention to have not parity with the Soviet military but superiority.³¹ This was a crucial change in Soviet policy and opened the way to the end of nuclear blackmail by Soviet leaders for the first time since Stalin.

compromise between the chambers, allowing \$27 million in nonmilitary aid to the Contras, was reached on July 26, 1985 with final approval and submission to the White House on August 1, 1985.

²⁷ "Editorial: Let's defend America," *The Washington Times*, (March 25, 1983) : A11; Tom Carhart, "Time for High Frontier," *The Washington Times*, (March 25, 1983) : A11; "Editorial: ABM: security vs. serenity," *The Washington Times*, (October 21, 1985) : A9; "Editorial: Hanging tough," *The Washington Times*, (October 13, 1986) : A11; "Editorial: Budget essentials," *The Washington Times*, (October 14, 1986) : A9; "Editorial: Not dead, only sleeping," *The Washington Times*, (October 15, 1986) : A9; "Editorial: SDI in the near term," *The Washington Times*, (October 16, 1986) : A11.

²⁸ "Editorial: Let's defend America," *The Washington Times*, (March 25, 1983) : A11.

²⁹ "Editorial: Nuclear Facts, Science Fictions," *The New York Times*, (March 27, 1983) : E18; "Editorial: The War Over Star Wars," *The New York Times*, (October 15, 1986) : A26; "Editorial: In the Reagan World, With No Missiles," *The New York Times*, (October 19, 1986) : 22; "Editorial: In the Real World, With the Bomb," *The New York Times*, (October 19, 1986) : 22.

³⁰ "Editorial: Nuclear Facts, Science Fictions," *The New York Times*, (March 27, 1983) : E18; "Editorial: In the Reagan World, With No Missiles," *The New York Times*, (October 19, 1986) : 22.

³¹ McGeorge Bundy, George Kennan, Robert McNamara, and Gerald Smith, "Reykjavik's Grounds for Hope," *The New York Times*, (October 19, 1985) : 23.

***Washington Times* role in the Cancellation of Plans for President Mikhail Gorbachev to address a Joint Session of Congress in Washington, D.C.**

In November of 1987, *The Washington Times* ignited a nationwide controversy, which resulted in the United States Congress rescinding an invitation for Soviet President Mikhail Gorbachev to be the first communist leader to address a joint session of Congress. This privilege had previously only been accorded to foreign dignitaries who were strong allies of the United States such as Lafayette, Winston Churchill, Margaret Thatcher and François Mitterand. Nonetheless, the White House and Democratic congressional leaders had negotiated behind the scenes to afford this honor to President Gorbachev on December 9, 1987 during the Reagan-Gorbachev Summit in Washington, D.C. *The Washington Times* broke this story on November 13, 1987 and headlined it on November 17. Its follow-up coverage and editorials helped to generate furor among conservative lawmakers, given that Soviet troops continued to occupy Afghanistan.³² The swelling chorus of opposition led the White House and the congressional supporters of the invitation to begin backpedaling by November 20 and to totally abandon these plans by November 22. In the months following this public embarrassment, President Gorbachev took a number of steps, including his announcement two and a half months later on February 8, 1988 to withdraw Soviet troops from Afghanistan, which clearly established *glasnost* as more than a political ploy and represented a major shift in Soviet foreign policy.

***The Washington Times*' Impact on other World Media**

The impact of Rev. Moon's *Washington Times* extended to the news disseminated in other parts of the world, including in communist and frontline countries. In 1988, Nobel peace laureate Oscar Sanchez Arias, then president of Costa Rica, a country bordering on Nicaragua, told the American Society of Newspaper Editors that Costa Rican newspapers depended on *The Washington Times* for news of their world. He went on to say that the only American newspaper Costa Rican citizens know exists is *The Washington Times*, and that if Costa Rican newspapers published something from the U.S. it was from the *Times*.³³ In 1990, future Nicaraguan President Violeta Chamorro Barrios, owner of *La Prensa*, the only daily newspaper which dared to defy Nicaragua's Sandinista government, confided to *The New York Times*' editorial board that the Sandinistas themselves regarded *The Washington Times* as "the newspaper of the Nicaraguan opposition."³⁴

³² Jeremiah O'Leary, "Gorbachev Arrival set for December 7," *The Washington Times*, (November 13, 1987) : A5; Jeremiah O'Leary and Gene Grabowski, "Gorbachev may Address Congress," *The Washington Times*, (November 17, 1987) : A4. The role of *The Washington Times* in leading the editorial campaign and stopping the planned address was encapsulated by *The Times*' Editor-in Chief, Arnaud de Borchgrave, in a December 4, 1987 speech before the American Leadership Conference.

³³ Oscar Arias, address before the American Society of Newspaper Editors, J.W. Marriott Hotel, Washington, D.C., April 14, 1988. Cited in *A Tribute* (Washington, D.C.: The Washington Times, 1990).

³⁴ Cited in *A Tribute*.

Reverend Moon's 1990 Rally in Moscow

During much of the 1980s the World Media Association (WMA), a media organization for journalists that was founded by Reverend Moon and headquartered at *The Washington Times*, provided opportunities for journalists from numerous publications to participate in fact-finding tours abroad and acquire first-hand exposure to numerous vortices of the Cold War. In 1982 Reverend Moon charged Mr. Larry Moffitt, Executive Director of WMA to begin to bring journalists from the West to the Soviet Union. These fact-finding tours eventually led to breakthroughs in ties between the Moon Organization and the Soviet leadership beginning with leaders of *Novosti* Press Agency. It was with the help of *Novosti* that in Spring 1990 Reverend Moon was able to visit Moscow and hold a conference or “rally” there.

After the *Washington Times* had played an important role in reversing efforts to have President Gorbachev address a joint session of Congress in 1987, *Novosti* officials paid a visit to the *Washington Times* editorial offices in December 1987. The World Media Conference and *Novosti* began to explore ways to collaborate. These efforts led to *Novosti* co-sponsoring a Washington, D.C. conference with the World Media Association in 1989. In 1990 *Novosti* reciprocated and the World Media Association was invited to co-sponsor a Conference with *Novosti* in Moscow. Through that Conference it finally became possible for Rev. Moon to realize his intent of hosting a rally in Moscow.

The program took place before a large audience in the Convention Center of the Mezhdunarodnaya Hotel in Moscow in April 1990. Local organizing staff included Russian followers of Reverend Moon who had been met by underground missionaries. A PWPA conference and founding meeting for the Russian chapter was held concurrently at the Ukraina hotel across the river, and international PWPA leaders also participated in the World Media Conference.

While in Moscow, the Reverend and Mrs. Moon met with USSR President Mikhail Gorbachev on April 11, 1990. In their meeting, Rev. Moon urged President Gorbachev to allow full religious freedom inside the U.S.S.R. The two leaders explored possible ways for future cooperation in the areas of business and education.

On the closing evening of a highly successful cultural program that featured the Little Angels, a renowned Korean children's folk dance troupe, also founded by Reverend Moon, he spoke to a blue-ribbon delegation of Soviet officials that included Soviet First Lady Raisa Gorbachev. Reverend Moon addressed the participants warmly but frankly, choosing to reflect publicly on his private meeting with Gorbachev:

“Yesterday, I had a remarkable meeting with President Gorbachev. I respect and admire his courage and leadership. I assured him that I would cooperate in every way I can to support his program of peace. I told President Gorbachev that the

secret for the success of the Soviet Union is to place God at the very center of every endeavor.³⁵

The American journalist Georgie Anne Geyer wrote an article commenting on the April 1990 Moscow *Novosti*-World Media Conference meetings. In her editorial, entitled “Most Unlikely Conference Meeting,” Ms. Geyer commented as follows:

Of all the impossible events that have occurred in the Soviet Union in the last five years, probably none has been as unlikely as the happy meeting in recent days between Mikhail Gorbachev and the Reverend Sun Myung Moon. The *Moscow News* called Mr. Moon “the most brilliant anti-communist and the No. 1 enemy of the state”—and then added, please, that it was ‘time to reconcile.’³⁶

Ms. Geyer went on to write that “this was after Reverend Moon, the head of the Unification Church, had lectured the Soviet people on Adam and Eve.” Ms. Geyer added that “the highest level Soviet officials present—atheists all—listened impassively.” Among those in attendance were Albert Vlasov, Chairman of the Novosti Press Agency and Yuri Ossipian, a key advisor to President Gorbachev.³⁷

The historic encounter between Rev. Moon and President Gorbachev in April 1990 led to the Soviet government supporting an effort to bring Soviet legislators to Washington, D.C. where they participated in American Leadership Conferences (ALC) and then on to New York. In December of 1990 and February of 1991, the ALC sponsored seminars for more than one hundred Soviet legislators (federal, republic and municipal levels) as well as delegations of cabinet ministers and members of parliament from Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Romania, and Yugoslavia. Soviet attendees included former KGB General Oleg Kalugin, *Izvestia* editor Lev Kornishev, and U.S.S.R. Minister of Justice Sergei Lushchikov. Some 3,000 Soviet young people were sponsored by Rev. Moon to visit the United States and participate in an exchange program under the auspices of the International Educational Foundation (IEF), an organization founded by Rev. Moon to promote education, reconciliation, and dialogue amongst the young people of the free and the communist worlds.

From April 30 to May 2, 1991, the American Leadership Conference sponsored a second American Leadership Conference and fact-finding tour for Soviet officials in the United States. This program included approximately 200 high-ranking government officials and political leaders from all 15 republics of the Soviet Union. This was the only time during this very intense period of Soviet history that any person, government or private organization brought together representatives from all 15 Soviet republics. In attendance were 26 deputies of the USSR Supreme Soviet and some 75 deputies of the Supreme Soviets of various

³⁵ Thomas J. Ward, *March to Moscow—The Role of the Reverend Sun Myung Moon in the Collapse of Communism*, (St. Paul, MN: Paragon House, 2005, p. 97.

³⁶ *Ibid.* p. 98.

³⁷ Bo Hi Pak, *The Truth is my Sword*, Vol. II, (New York: HSA-UWA, 1999). P. 594

republics, as well as Republic vice-presidents, cabinet ministers, and ambassadors. The officials who visited the United States received an introduction to the work and views of CAUSA as well as briefings on American government, business and trade. While in the United States, the participants met with federal officials in Washington, D.C. as well as with city and state officials and business leaders in New York City. CAUSA sponsored a reception for them with New York business leaders at the New York Hilton. This led to lasting commercial ties being established, in some cases, between American corporations and CIS governments and industries.

A Few Reflections for Skeptics

When Reverend Moon arrived in the United States in 1971, skepticism towards anticommunism ran high. Since the “witch hunts” of U.S. Senator Joseph McCarthy in the 1950s, those who expressed concern about the spread of communism were routinely portrayed as McCarthy clones. The Liberal Left seemed to attack anticommunism with religious fervor, unable to distinguish between reactionary and constructive criticism of Marxism-Leninism. The American Left also seemed to have a deep-seated, kneejerk disdain for authoritarian Asian allies to the United States such as Ferdinand Marcos, Chiang Kai-Shek, Nguyen Cao Ky, and Park Chung Hee. Their disdain for these leaders far outweighed their reservations towards the far more brutal and dehumanizing acts of Stalin, Mao Zedong, Pol Pot, or Ho Chi Minh. I am tempted to attribute it to an unreasoned racial and ideological stereotyping. Asian authoritarian figures who fit on the right side of the political spectrum were depicted by the establishment media as spineless pro-American sycophants who, to maintain power and enrich themselves, curried favor from the United States, and opposed progress. Reverend Moon, a Korean, was placed in that same “box” as the Asian rightist authoritarians despised by the American media; and thus he and his followers were fair game for calumny. As noted, Reverend Moon was often portrayed by major American publications not as a religious leader but disrespectfully as a “Korean industrialist” who swindled Americans under the guise of Bible thumping religion and flag-waving anticommunism.

But Reverend Moon was not just the object of disdain in the Western media. The official Soviet daily *Izvestia* in its August 25, 1984 edition described CAUSA as a “pseudo-religious organization” that “took upon itself a significant share of the expense in the battle against national liberation movements of Central America.”³⁸ On March 23, 1987 *Pravda* “revealed” that “CAUSA” was used by the CIA not only as a channel for collecting and transferring funds to the Nicaraguans as well as other “contras” but also to subsidize anti-Soviet emigres within the context of Moon’s proclaimed “strategy of encirclement of the USSR.”³⁹

Regardless of how the Soviet Media and the mainstream U.S. media portrayed him, there is no doubt that Rev. Moon’s work and the CAUSA message struck a chord in Latin America,

³⁸ Ed. Thomas J. Ward, *An Idea whose Time has come—The History of CAUSA International*, (New York: CAUSA Institute, 1990), pp. 58-59.

³⁹ *Ibid.*, p. 59.

which was the center of the Cold War struggle in the 1980s. Honduran Minister of International Information Ambassador Amilcar Santamaria expressed it this way:

I am convinced that Rev. Moon and this movement offer genuine hope to the people of Central America. Surrounded by underdevelopment, filled with corruption, destroyed by violence and attacked by Soviet totalitarianism, our countries urgently need a worldview capable of mobilizing their moral resources to support liberty, justice and peace. The vision of CAUSA offers such a worldview.⁴⁰

In short, reflecting back on all the different labels people used to describe Reverend Moon—cult leader, Korean industrialist, rightwing extremist, McCarthyist, charlatan, media mogul—turned out to be projections of those delivering the accusations. By being a person genuinely seeking to improve the world—something most people find hard to believe—Reverend Moon was like a mirror reflecting the fears and prejudices of persons and groups. I discovered that people who had a genuine interest to study CAUSA or other of Reverend Moon’s activities, often ended up impressed by them.

“Blood is Thicker” than Water: From Moscow to Pyongyang

In April 1988 Yu Kikimura, an operative of the Japanese Red Army (JRA)—an organization with established ties to North Korea—was arrested on the New Jersey Turnpike for arms possession and was detained. At the time of his apprehension, Kikimura’s car was filled with high-powered weapons and explosives. His terrorist activities in the United States were meant to coincide with the JRA’s bombing of a USO club in Naples, Italy, which took the lives of five persons including an American servicewoman. The FBI confiscated Kikimura’s notebook which indicated his targets in America; Rev. Moon was informed by the FBI that he figured prominently on the list.

Regardless of ostensible hostilities, Rev. Moon had determined that it was time to return to Pyongyang. He began to reach out through back channels to North Korea. In April 1990, DPRK officials turned down a request from Rev. Moon’s World Media Conference that North Korea permit some of the attendees of the spring 1990 World Media Conference program in Moscow to travel on from there to Pyongyang.

Later in 1990, Soviet journalists joined a World Media Conference fact-finding tour that included South Korea. During their stay in Seoul, the Soviet journalists met personally with Reverend Moon, who requested that they visit Pyongyang on his behalf. He asked them to convey to the North Koreans that Reverend Moon was not their enemy, and that he wished to meet with President Kim Il Sung. The journalists complied with this request and met with government officials in North Korea.

After several unsuccessful attempts, Rev. Moon finally received an official invitation to travel to Pyongyang in November 1991. He was both affable and frank during his visit there.

⁴⁰ *Ibid.*, p. 17.

He was, in fact, so frank that some of those who accompanied him wondered whether they would ever see Seoul or Washington again. In a meeting with top DPRK officials, Rev. Moon stated unequivocally that neither Kim Il Sung's brand of communism (known as *Juche* thought) nor the guiding political philosophy of South Korea could bring about Korea's reunification. He emphasized that his teachings of "headwing" (as opposed to right or left) were meant to play a central role in facilitating reconciliation between the North and South. Rev. Moon's bold pronouncement that *Juche* could not bring the Koreas together shocked Kim Il Sung's followers as well as his own.⁴¹

Apparently over the protest of some of his subordinates, Kim Il Sung, decided to meet with Rev. and Mrs. Moon on the last full day of their visit to the North. In spite of their marked philosophical differences, their encounter proved to be positive.⁴² Reverend Moon was soon publicly recognized by North Korea as one of the "heroes" promoting North-South reconciliation. Collaboration soon followed on a number of projects including an automobile factory.

In May 1992 a delegation of former U.S. government officials traveled to Pyongyang under Reverend Moon's sponsorship and I was a part of that delegation. Our delegation was chaired by former Missouri Congressman Richard Ichord, President of the American Freedom Coalition (AFC). On the occasion of our visit to Pyongyang, Congressman Ichord hand-delivered a letter from the White House for President Kim Il Sung. The delegation members included two-time Olympic Decathlon Gold medalist and former Congressman Bob Mathias, former CIA Deputy Director Max Hugel, and Ambassador Douglas MacArthur II, former U.S. Ambassador to Japan and Iran and the nephew and namesake of Gen. Douglas MacArthur, who had served as the Supreme Commander of the UN troops that had repulsed the 1950 aggression against the South by North Korean leader Kim Il Sung.

Congressman Ichord had briefed President George H.W. Bush's National Security Advisor Brent Scowcroft prior to his departure for Pyongyang and he met with President Bush on his return. That visit was the third significant goodwill gesture spearheaded by the Moons to improve relations with Pyongyang over a seven-month period beginning in late 1991. The first was the Moons' own December 1991 visit to Pyongyang and their meeting at that time with President Kim Il Sung. This was followed by *Washington Times* reporter Josette Sheeran's interview with President Kim that then appeared in the *Times*.

The delegation headed by Congressman Ichord decided in consultation with the White House to target the cooling of abusive language (toward the U.S. and South Korea) by DPRK officials and government media as the principal diplomatic objective of the visit. The delegation addressed this and other topics with high-ranking Party officials, including Kim Young Sun, the DPRK's highest official on foreign affairs, and President Kim Il Sung

⁴¹ *Youtube*, MBCNet Special Report on Reverend Sun Myung Moon English, August 22, 2013, https://www.youtube.com/watch?v=_N-HIC4q_tc accessed on May 1, 2017.

⁴² *Ibid.*

himself, who hosted the delegation at a luncheon and in a private meeting. Kim spent more than three hours with the AFC group.

Congressman Ichord requested that I remain in Pyongyang after the AFC visit. I spent seven additional days, during which I time I crafted a statement that called for restraint in communications between the two countries that would include avoiding demeaning language. In a meeting with Kim Young Sun, the key architect of foreign policy under President Kim Il Sung, I was informed that the DPRK foreign ministry officials did not have consensus on a statement that I had drafted but would make a gesture of reconciliation that I would be informed of at a later date. I departed from Pyongyang on June 6, 1992.

Three weeks later, on June 23, I received a telephone call at my New York office from a North Korean diplomat at the United Nations who was requesting a meeting with Congressman Ichord, American Freedom Coalition leader Gary Jarmin and myself. We met at a restaurant on New York's upper East Side, where the DPRK official informed us that, as a gesture of appreciation for our visit to Pyongyang, the DPRK had made a unilateral decision to cancel its annual month of anti-American demonstrations, which took place every year since the end of the Korean War during the period between June 25th (date of the start of the Korean Conflict in 1950) to July 27th (date of the truce ending the conflict in 1953). The official asked Congressman Ichord to convey this officially to the Bush administration, which he did on June 24, 1992, both by telephone and by facsimile. Congressman Ichord and I also drafted a commentary piece, which appeared in the *Washington Times*, announcing the Pyongyang policy decision.

We were informed by DPRK officials that this step had been taken as a gesture of recognition for the efforts made by Reverend and Mrs. Moon and as an expression of goodwill to the former US government officials that had visited Pyongyang in June 1992. The DPRK official asked Congressman Ichord to report directly to the White House, noting that this normally would be conveyed through the U.S. Embassy in Beijing. He explained that the decision to inform Congressman Ichord rather than go through normal channels was due to the DPRK's desire to highlight to the US government the importance that they attributed to Reverend and Mrs. Moon's role in this dramatic policy change.

Epilogue

Channels of communication between Pyongyang and the Unification Church have remained in place since that time, and this has proven of use for US-DPRK exchanges on some occasions. The high profile of the Moon's organization in North Korea was highlighted in a February 7, 2012 article in *TheDaily Beast* entitled "The Bush Administration's Secret Link to North Korea." The *Daily Beast* article pointed out that, in addition to working with former U.S. President Bill Clinton, the Bush Administration, between 2003 and 2008, had utilized Mr. Dong Moon Joo, the former President of the *Washington Times* and a Reverend Moon confidant, as a Track II emissary between the United States and Pyongyang. Indeed,

individuals and organizations associated with the Reverend Moon have played a liaison role with Pyongyang since 1991 when Reverend Moon first visited Pyongyang.

On August 15, 2012, Charles K. Armstrong, Columbia University Professor of Korean Studies, described in a *New York Times* opinion piece how posters and billboards in North Korea are almost exclusively devoted to promoting the views of the ruling party and its leadership. He did note that there was one exception:

In recent years, however, one company has been allowed to advertise its products: Pyonghwa Motors, a joint venture between the Rev. Sun Myung Moon's South Korea-based Unification Church and North Korea's state-run Ryonbong General Corporation. A few signs promoting the company's Whistle sedan can be seen in Pyongyang and surrounding areas. Essentially a Hyundai, the Whistle is an increasingly common sight on Pyongyang streets.⁴³

Immediately following his passing on September 3, 2012 numerous tributes were paid to Reverend Moon. Perhaps one of the most significant ones was the bestowal of the "National Reunification Prize" on Reverend Moon by the Presidium of the Supreme People's Assembly of the Democratic Republic of Korea (North Korea). The Reverend Moon's youngest son, Hyung Jin Moon, received the award. In reporting on Reverend Moon's passing and on the bestowal of this award, the DPRK commended Reverend Moon because he had "positively contributed to realizing the nation's reconciliation and unity and the country's peaceful reunification and achieving the prosperity common to the nation."⁴⁴

Peace Scholar John Paul Lederach is the first scholar to distinguish between "Conflict Resolution" and "Conflict Transformation." Lederach defines "conflict transformation" as follows:

Conflict transformation is to envision and respond to the ebb and flow of social conflict as life-giving opportunities for creating constructive change processes that reduce violence, increase justice in direct interaction and social structures, and respond to real-life problems in human relationships⁴⁵.

"Conflict Transformation" recognizes that problems cannot be "resolved" without having addressed the deeper, invisible roots that lie at the heart of any given conflict. By viewing conflict through this lens, it helps us to address conflict in a way that allows for widening levels of partnership and cooperation between those who once perceived each other as enemies.

⁴³ *New York Times*, "The View from Pyongyang" by Charles K. Armstrong; August 15, 2012; <http://www.nytimes.com/2012/08/16/opinion/the-view-from-pyongyang-north-korea.html> accessed on October 11, 2012.

⁴⁴ *Youtube*, "Reverend Moon awarded National Reunification Prize," September 7, 2012; <https://www.youtube.com/watch?v=7BZQBxETwK8> accessed on January 14, 2017.

⁴⁵ *Restorative Justice*, "Defining Conflict Transformation?" by John-Paul Lederach, <http://restorativejustice.org/10fulltext/lederach.html> deaccessed on May 31, 2017.

The positive outcomes that Rev. Moon experienced in Pyongyang in 1991 and in Moscow in 1990 represented the culmination of a process that he had initiated in June 1946 when he traveled North to Pyongyang from Seoul. Reverend Moon's efforts in the years that followed his 1990-1991 visits confirm that, from the very beginning, the enemy of Reverend Moon was never the communists but the ideology that restrained them from achieving ideals of peace, justice, and prosperity. He wanted individuals, in the free world and the communist world alike, to recognize the tragic implications of implementing a worldview that decrees the non-existence of a transcendent source of nature and the universe and thus delimits humanity's quest for meaning and realization by imposing a flawed ideology with hubris that makes enemies expendable. I believe Reverend Moon's accomplishments in Russia and North Korea can be viewed as "conflict transformation." Since his meetings with Soviet President Gorbachev, and Kim Il Sung in North Korea, the world has become complicated and exacerbated by new forms of violence and conflict. New ideological absolutisms must be met with new initiatives. Nevertheless, there is value in studying and reflecting on the extraordinary efforts that Reverend Moon made both to address communism constructively and to seek peace and reconciliation with those who had seen him as their enemy.

The Washington Times and the End of the Cold War

Mr. Bill Gertz

Journalist for The Washington Times, USA

On April 10, 1991, the official newspaper of the Soviet military, *Krasnaya Zvezda*, Red Star, published an article with the headline, “How Many Hats Does Mr. Gertz Have?” The author was Maj. Gen. Gennady Kashuba, chief of the Soviet Defense Ministry press office. The article accused this reporter, as a national security writer for *The Washington Times*, of spreading “base misinformation” – ironically, a Soviet specialty. The article took issue with two stories written days earlier for *The Times*, one on a secret visit to the recently dissolved East Germany by Soviet Defense Minister Dmitri Yazov in March 1991 that was part of Moscow’s plan to secret out of the country Erich Honecker, the East German leader and Soviet puppet dictator. Honecker was wanted by German authorities for his role in ordering the deaths of some 200 East Germans who were killed trying to flee to the free West during the Cold War. The second story was the real target of Moscow’s ire. It was a piece written about extensive and well-funded Soviet disinformation operations run by the KGB in the developing world to poison world opinion about the United States while seeking to build support for the Soviet Union. The campaigns by the KGB included the lie published in African newspapers that the AIDS virus was a CIA biological warfare weapon developed for use against blacks. Red Star asserted that in Britain there is saying that someone caught lying must eat his hat. Thus the article concluded that I would need to eat several hats and that they are a regular part of my diet. The disinformation piece also contained the subtle suggestion I was dual-hatted in the sense that I was a journalist, but also the false allegation that I was running dog of the CIA.

It was an amazing acknowledgement of the power of one reporter to impact a vast Communist empire. I regarded it as a badge of honor to be singled out by Moscow for my reporting. The clipping in Russian, was presented to me as a gift from Herb Romerstein, a Communist-turned-anti-communist and American patriot who was among some of the hundreds of government officials who regarded *The Washington Times* as a strategically vital tool in winning the Cold War against Soviet Communism.

Eight months later on Dec. 26, 1991, the Soviet Union was dissolved, ending an expansionist Communist empire and marking what many consider the end of the Cold War. In reality, the Cold War has not ended completely, as those opposing Communist rule in states such as China, North Korea and Cuba attest. Remember, China’s Liu Xiabo, winner of the 2010 Nobel Peace Prize, is currently imprisoned in China for human rights advocacy.

The Washington Times was formed in 1982 by Rev. Sun Myung Moon amid concerns that the media landscape in Washington, DC was dominated by the liberal establishment newspaper, the *Washington Post*, a publication that had earned its reputation for being “Pravda on the Potomac.” The roots of *The Washington Times* can be traced to the closure of the *Washington Star* in 1981, the venerated afternoon daily that had struggled to survive as one of Washington’s oldest newspapers following its purchase by *Time* magazine. The folding of *The Star* left the nation’s capital with a single newspaper.

Lacking both funding and experienced news personnel, Rev. Moon launched the *Washington Times* largely on faith and the firm belief and concern that Washington leaders would not be educated about growing danger posed by Soviet communism. Over the ensuing years, he invested tens of billions of dollars in the *Washington Times*. Rev. Moon explained to aides that the newspaper was a mission more than a business, and that he had been inspired by God to make the important commitment to the newspaper. That commitment has continued under his wife Hak Ja Han Moon.

For decades during the Cold War there was fundamental problem in dealing with Soviet communism. The political divide split the country between anti-communist conservatives who viewed the Soviet Union as a strategic threat to be defeated and left liberal anti-anti-communists who sought accommodation and engagement with Moscow. The political divide meant that the early Cold War foreign policy approach of containment – essentially leaving the Soviets alone while seeking to prevent its spread -- could not be altered or modified.

Rev. Moon’s motivation for *The Times* was not simply to use the newspaper to educate leaders and seek the defeat of Communism. It was part of a larger effort he believed would bring about world unity and ultimately the creation of a God-centered world.

The DNA of *The Washington Times* was the need for a conservative alternative to the *Washington Post* in informing and educating Washington leaders and the nation to the Communist threat. Rev. Moon recognized that news media are essential not just for news but for the educational role of helping leaders and populations understand the true nature of the danger of Communism, the atheistic, anti-human ideology that denies God and seeks to use government controls to alter human nature. The ideology is based on lies and has cost tens of millions of lives in pursuit of this objective.¹

Rev. Moon was a global international spiritual leader who received the mission from God as a teenager to complete the unfinished work of Jesus Christ, the Messiah whose life was devoted to bringing a new truth and spiritual salvation to humankind. Rev Moon teaches that Jesus was crucified before he could expand the spiritual victory of individual salvation and restoration to the family level and beyond, ultimately creating an earthly Kingdom of God. Rev. Moon’s life and teachings include a God-centered blueprint called as the Providence of

¹ For a full accounting of deaths under communism, see “The Black Book of Communism: Crimes, Terror, Repression,” Jean-Louis Panné, Andrzej Paczkowski, Karel Bartosek, Jean-Louis Margolin, Nicolas Werth, Stéphane Courtois. Harvard University Press, 1999.

Restoration that traces the current calamity of the human race today to a spiritual separation from God by the first human ancestors through the fall. Rev. and Mrs. Moon are advancing the Restoration Providence through the spiritual and physical recreation of “True Parents” – the restored first ancestors -- who can lead the entire world back to God.

The mission of *The Washington Times* is part of a larger plan to unite the world. A fundamental precept of Rev. Moon is that America was founded by those seeking both religious and political freedom and was bestowed with great blessings not for America and Americans alone. The blessings of liberty, freedom, faith and family embodied in the American deal must be shared with the world. Thus the United States remains one of God’s chosen nations tasked with assisting world restoration.

Temporally, the *Times* was founded in 1982 with the mission of providing an alternative to the liberal *Washington Post*. The spiritual mission of the paper was to support Rev. Moon’s vision for world restoration and unity. In response to critics who said he spent \$100 billion on *The Times* with little return on the investment, Rev. Moon said that if \$100 billion was the cost of saving the entire world then that is something that will make God happy.

A decision was made early in the formation of the paper, led by a close associate of Rev. Moon’s, Dr. Bo Hi Pak, that it would remain a secular newspaper, independent of the Unification movement. This led to some difficulties for the owners who were paying for the paper, at great sacrifice by fundraisers and financiers mostly in Asia, but who had no direct control over content, either of news or of the larger-than-normal Commentary section for opinion columns and editorials.

The newspaper’s initial leadership was largely drawn from the *Washington Star*, including Smith Hempstone and Woody West, along with many former Star reporters. The newspaper’s power and influence greatly expanded in the mid-1980s after Arnaud de Borchgrave took over as the executive editor, assisted by Wes Pruden, Woody West, and Pulitzer-Prize winning editor Mary Lou Forbes, who directed the Commentary section. DeBorchgrave is credited with putting the newspaper on the map, through his flamboyant and energetic leadership. DeBorchgrave’s dedication included sleeping in his office in a Murphy bed he had installed in a large mezzanine office overlooking the Times’ newsroom. He would frequently scribble story ideas on yellow cards and pass them down over the balcony railing in his upstairs office in what recipients dubbed “Yellow Rain.” An ardent anti-communist, patriotic conservative, and former *Newsweek* writer, more than any other figure at the newspaper deBorchgrave, who died in 2015, used his experience and contacts within President Ronald Reagan’s administration to establish *The Washington Times* as a credible source of news and information, and an absolute must-read newspaper.

As a former actor and GE spokesman, Reagan understood better than any modern politician the power of ideas and the use of media to convey them. Creation of *The Times* was perfectly timed to the incoming conservative administration. Reagan quickly revolutionized the establishment foreign policy toward Communism and the Soviet Union by clearly identifying Moscow as the enemy to be defeated, not just contained. He called the Soviet

Union an evil empire. But more importantly he set in motion covert and overt policies that quickened its demise and resulted in the fall of the Berlin Wall in 1989 and the Soviet Union on Dec. 26, 1991.

Reagan would say in 1992 in a video message for the newspaper's 10th anniversary: "You my friends at *The Washington Times* have told it to them. It wasn't always the popular thing to do, but you were a loud and powerful voice. Like me, you arrived in Washington at the beginning of the most momentous decade of the century. Together we rolled up our sleeves and got to work. And oh, yes, we won the Cold War."

According to a retired U.S. Secret Service agent who worked closely to protect President Reagan, the president demanded that aides deliver *The Washington Times* to him in the morning (along with two other papers) in Washington or wherever he was traveling in the world.

The Times became a go-to destination for conservatives in government who greatly assisted the paper by providing exclusive information that was converted into scoop reporting.

In 2002, Rev. Moon said of the paper: "In the context of God's Will, there needed to be a newspaper that had the philosophical and ideological foundation to encourage and enlighten the people and leaders of America. For months, I waited with the hope that some patriotic Americans would start a newspaper in Washington to provide an alternative voice to the *Post*. But when it became clear that no one would do so, I decided we had to do it. Ronald Reagan had been elected president in a landslide vote. Yet while he tried to maintain a strong stand against communist expansion, there was much confusion in Washington over what America's proper response to the Soviet threat should be. *The Washington Times* provided leadership through thoughtful commentary and objective news and information to make clear the harsh reality of communist tyranny."

"This new era of media, with the massive distribution of news and information, requires leadership and clear guidance for the betterment of individuals based on values and on the knowledge of God and spirit world," he added. "*The Washington Times* and our family of media have been providing this direction for the past two decades and will continue to do so into our third decade. My hope is that each one of you as well will embody the qualities of defending freedom, promoting family values, and strengthening your faith in God so that you may become leaders of the world."

The paper was part of a three-pronged effort to restore America to align with the founding principles of freedom against Communist tyranny, to promote the family against the corrosive impact of family breakdown and strengthen faith in seeking to unit all religious people in a common goal of world restoration.

My position as a national security reporter quickly became an important voice on debates on national security topics. Exclusives and inside information about policy debates and battles both inside the Executive Branch and on Capitol Hill made *The Times* an absolute requirement for officials on both the political Left and Right. National security officials in

and out of government regarded my reporting as a national American treasure. Some prayed for me.

I always saw my position as a professional reporter who presented the news without fear or favor. My mandate was to tell the truth, factually. Our strategy at *The Times* to counter the liberal left bias so prevalent in the mainstream news media was simple. With less resources for travel and foreign bureaus and staff paid less than industry standards, *The Times* strategy called for carving out unique news reporting of areas where other papers were deficient. Politics, national security, investigative reporting.

For me, anti-communism was an important influence in my worldview and thus I found *The Washington Times* to be an oasis of rational news coverage during the Cold War. Having been exposed to New Left ideas during the anti-Vietnam War era, by the 1970s, I understood the power of ideas and ideology. I too was concerned about the spread of communism, with its anti-human, anti-God ideology. Domestically, I opposed the American variant of the New Left radicalism that had begun quietly conducting what radical theorist Herbert Marcuse called "the Long March through the institutions" of the United States, a march that culminated in the election of Barack Obama in 2008.

Among those news stories and news coverage by *The Times* during the Cold War that were instrumental in helping end the Soviet Union, the exposure of Soviet KGB activities and disinformation figured prominently. Others included extensive coverage of the arms control debates of the 1980s and especially the problem of the 1972 Anti-Ballistic Missile Treaty that had become the main rallying cry for liberal arms control advocates who often regarded America as the main problem in the world in the nuclear confrontation between the United States and the Soviet Union. The ABM Treaty perpetuated the immoral Cold War nuclear policy of Mutual Assured Destruction that held the populations of the United States and Soviet Union hostage to large nuclear arsenals. Worse, the treaty limited developing defenses against missiles. It was Reagan who revolutionized the concept of strategic defense against missiles by launching the Strategic Defense Initiative. It would take the administration of President George W. Bush to finally withdraw from the treaty in 1991, paving the way for missile defenses.

The debates over missile defense were one of the most significant political battles during the late stages of the Cold War and as a result many patriots in government worked with *The Times* to help tell the truth about the need for protecting against missile attacks.

The Times also played a key role in exposing the danger of foreign intelligence activities. Beginning in 1985, a series of extremely damaging spy cases unfolded in what would come to be known as the Year of the Spy. It would eventually stretch into the Decade of the Spy and *The Times* played an important role in highlighting the danger. For example, in the case of the Navy communications secrets supplied to Moscow by Soviet spy John A. Walker Jr. and the spy ring he ran, Defense Secretary Caspar Weinberger revealed that if the United States had gone to war with the Soviet Union, the secrets supplied by the Walker spy ring would have led to the defeat of the United States.

The Times role in highlighting danger of foreign espionage would burst into public view only a few years after the Cold War ended, with the disclosures that Aldrich Ames, a traitorous CIA officer, and Robert Hansen, a turncoat FBI agent, emerged as among the most damaging Soviet and later Russian spies in American history.

And spying by Communist China would have lasting and dangerous consequences that are still being felt today. China conducted an across-the-board espionage campaign against the U.S. nuclear weapons establishment and, according to the CIA, obtained secrets on every deployed warhead in the U.S. nuclear arsenal. The secrets are now incorporated into a large and growing Chinese nuclear arsenal that directly threatens the United States. Worse, China shared its stolen American nuclear weapons secrets with Pakistan, which in turn spread those nuclear arms details to Iran, North Korea, and Libya.

The newspaper also battled communism in Central America through its coverage of the effort to defeat Soviet-aligned communists in Nicaragua and elsewhere. When liberals in Congress cut off funding for the Contra rebels, the CIA-backed anti-communist forces, the *Times* stepped in. In May 1985, the *Times* sponsored an international fundraising campaign to raise \$14 million for the Contras, including a \$100,000 donation from Rev. Moon and the Unification Church.

A critically important line of news coverage for *The Times* during the Cold War was the extensive coverage of Soviet aid to international terrorism, support that reached its zenith with Moscow's role in the attempted assassination of Pope John Paul. *The Times* provided some of the most important exclusives highlighting the Soviet backing for terrorist groups around the world.

The Washington Times was unique in that its opinion pages were overtly conservative. Its news pages, however, have remained focused on providing what *Times'* Editor Emeritus Wesley Pruden says is uncompromisingly objective in its news reporting. The expanded opinion and editorial pages have been unapologetically conservative.

As the late British Prime Minister Margaret Thatcher states, "in difficult times, even more than in easy ones, the voice of conservative news must make itself heard in the media. It isn't always easy, but this we can be sure, while *The Washington Times* is alive and well, conservative news will never be drowned out. And if they are heard, they will prevail."

In sum, *The Washington Times* played a pivotal role in helping to end the Soviet Union, the most important monolithic and expansionist communist power of the 20th Century.

As Rev. Moon stated:

"When I announced the founding in 1982, many people in American ridiculed me. Some experts predicted that, even if I founded a newspaper of acceptable quality, I would run out of funds in six months. And if not that, then the paper would degenerate into nothing more than a mouthpiece for the Unification Church and would end up as a weekly newspaper, read by almost no one. Now, *The Washington Times* is counted among the top three newspapers in

terms of influence among 1,750 newspapers published in the United States... History will not forget this contribution. The efforts of *The Washington Times* to revitalize the moral and spiritual values of the United States and world are being recognized as absolutely urgent and necessary at this time.”

New Challenges Need New Identities

Dr. Werner Fasslabend

Former Minister of Defense, Austria

Thank you for your extravagant praise. Before launching into my talk let me briefly introduce myself. I was born and raised in a small town in lower Austria barely a hundred meters from the border with Slovakia which lay behind the Iron Curtain. From early childhood I confronted the reality of the division of the East and West Bloc. Almost every week, during the night we would hear shouts and cries of people, barking dogs, and shooting on the other side. This is an experience a young boy will never forget. The question of how to overcome the system across the frontier occupied me since early childhood. I will attempt to apply the lessons we learned through handling the process of German reunification to the situation you confront in Korea. For this I wish to present eight main points we have gleaned that may be helpful for you.

Firstly, to overcome such a complex political and strategic situation where the whole world is intensely engaged and polarized, you need a solid political basis. If you ask what constitutes a political basis, I would say it's the people themselves. Recalling our experience, in the late 1940s the two major alliances were established: NATO on one side and the Warsaw Pact on the other. Already in 1953 the first rebellion broke out in Berlin, when citizens took to the streets and stood up to Soviet tanks with bare hands. Of course, they had no chance and were promptly defeated. Just three years later a similar uprising happened in Budapest, Hungary. People demonstrated, fighting without weapons against Soviet tanks with no chance of winning. The insurgence lasted a bit longer, but was likewise suppressed. Twelve years after that was the Prague Spring in 1968. Unarmed Czechs walked the streets, facing down Soviet tanks. The whole Warsaw Pact system concentrated its troops there. Of course they quashed it. For the period of a few years no one dared to stand up, but twelve years later in the Polish shipyards of Gdansk a simple union worker Lech Wałęsa organized the Solidarity movement. Nobody could defeat the workers because the Soviet Union could not mow down their own Communist Party workers. If they did so they would have lost all credibility. So we see that in the long run people's dreams, visions and ambitions probably is the most decisive factor to overcome such a juggernaut as the communist system.

Secondly, what can you do from the political side? What is necessary is not just to follow a pure principle, obstinately insisting on your position. If we are to overcome the obstacle, of course we must seek new approaches and methods, which entails a certain pragmatism. Thinking back, it was just two years after the Soviet army demolished the Prague Spring. German Chancellor Willy Brandt shaped his new Ostpolitik, or Eastern policy, which involved opening dialogue with the other side in a very pragmatic way. He did not like those

people nor their system, but he undertook this way for the sake of overcoming the barriers. We must consider the current situation in its context. I think this is extremely important.

Thirdly, as the Cold War began to draw to a close, Helmut Kohl sought the friendship of Mr. Gorbachev on the other side. He invested not only to come together, but did his best to prepare an atmosphere of familiarity. Instead of coming with suit and tie, he met Gorbachev wearing a simple shirt and his best smile. You see, this personal relationship in political affairs is very important and will be so in the future.

Fourth: You must be equipped with a positive program offering freedom, peace and prosperity. This was developed just a few years after the Prague Spring uprising in Czechoslovakia. Both sides, East and West, decided to go this route, and embarked on the negotiation process called the CSCE (Committee on Security and Cooperation in Europe). They shared “three baskets”: security, economic cooperation, and humanitarian issues. Each of these was vitally important for the success of the process.

My fifth point is that we must not only design a new program and procedure, but make it permanent. It's remarkable that the CSCE process lasted through the end of the Cold War and then developed into an international organization, the OSCE (Organization for Security and Co-operation in Europe) which still exists. Why? Because in politics you never can predict the outcome. When the right moment comes, if you have a steady, eternal foundation based on which you can overcome difficulties; in the meantime wait for the next best opportunity. This is certainly a useful mindset.

The sixth point is never to act only out of a position of weakness but try to act from a position of power — not overwhelming power but equal power is enough. Do so not just by offering unilaterally to the counterpart, but also taking a firm stance where you are able to keep your own position. I think this give-and-take is a precondition for success. If we look back on what happened, it is rather interesting that during that period we had the so-called NATO “Double-Track Decision.” On the one hand they enforced new armament and at the same time they offered dialogue to the Warsaw Pact from a position of strength. The two sides entered dialogue and it was ultimately successful.

Seventh, I suggest that it is beneficial to familiarize yourself not only with political leaders but also with private personalities and civil society. This is important in negotiations with big statesmen like Helmut Kohl, François Mitterrand, Mikhail Gorbachev, Willy Brandt, and Ronald Reagan as well as other public figures. Think what an important role the Polish Pope John Paul II played at that time. He was a literate, educated man who understood the Slavs. Czech president Vaclav Havel in his testimony to Pope John Paul II stressed how important it is not only to do politics but to be involved with all parts of society.

The eighth and final point I would share is to prepare yourself for the unexpected, because you never know when it will occur. Prepare yourself for reunification and keep patience before and after. Even after reunification you need endurance, as we see in the case of East and West Germany. You should always think how to prepare for it in the best way. Just think

what will happen when Korea is united: It will fundamentally change the strategic situation in East Asia, establishing the Far East as a new powerhouse with the economic strength of the South and the military might of the North. Korea will be a formidable nation comparable to Japan and the U.S. This scenario will be more manageable for other nations, but it will bring serious concerns as well. We know that before German unification, they were two nations opposing one another. Two NATO allies, France and the U.K., opposed reunification; only a leader such as Kohl was capable of responding and taking quick action to overcome the situation. So you must prepare yourself psychologically for what will be necessary in order to handle what will happen after reunification. It is a huge challenge, of course. Going back to the beginning, I would say the most important thing is to never give up. Even if you find yourself in an extremely difficult situation that no one had imagined could happen, do not forget: Keep believing. When people keep believing and have confidence in their political system, you can be sure you will reach the goal and go forward. Why? Because unification is certainly the dream, vision and ambition of the Korean people. Sooner or later it will come about. It will solve the main Korean problem; but it will present many lesser problems for the nation. All the same, North-South Korean unification is extremely important for security and stability in eastern Asia and for peace and security all around the world. Thank you for your attention.

A Vision for World Peace: Regional Perspectives in the Europe-Africa Region

Dr. Emmanuel Dupuy

President of the Institute for Prospective and Security Studies in Europe (IPSE), France

Perspectives for a new geopolitical "verticality" for peace, stability and security: Africa, Mediterranean, Europe: building bridges, deconstructing barriers

When it comes to discussing the reasons why the fate of the 511 million Europeans is inexorably linked to that of the one billion Africans on the other side of the Mediterranean, the question of the integrated economic area is often forgotten.

What is needed, however, is not to oppose strategies on either side of the Mare Nostrum, or to highlight the positive and the negative features on each shore –let us remember that they are only 14 km apart. What is needed is to see the enduring appeal of the formidable prospects offered by the fluidity and regularity of trans-Mediterranean trade.

It is nothing but taking account of the need to work towards a mutual "strategic depth," at once African, Arab-Muslim, Judeo-Christian, Mediterranean, Atlantic, Saharan, European and Asian...

The stakes are high: that of building a region integrated on a global scale, linking Africa, the Mediterranean and Europe - brought together under the acronym AME - in which each part finds its centrality and singularity while not forgetting the importance of the collective sense.

The world economy and globalization also show that only integrated world regions such as NAFTA and Mercosur on the American continent or ASEAN in Asia can claim balanced development and sustainable growth based on solidarity among their members.

This new reality takes on full meaning, moreover, at the geopolitical, geo-economic and geocultural levels. As a result, is the need to think of EurAfrica, with the Mediterranean as a bridge and not perceived as a barrier between the European, Asian and African continents.

Its full realization will thus be the guarantee of an area of shared prosperity, stability and security, capable of curbing the ills that prevent its full development (resilient terrorist and narco-criminal threat, uncontrolled migration, economic asymmetry, poor state governance, etc.).

Teranga and Pleasant Parent Kinship as strategies to ensure peaceful coexistence in Senegalese society

Dr. Oumar Ndong

President of PWPA Senegal, Senegal

Introduction

Recent social historiography of independent Senegal shows a long history of encounters of the country with foreign cultures, first with Islam from the Middle East as early as the eighth century, and later with the West which brought to the African shores Christianity together with slavery and colonization. Those encounters did not find a barren ground, *a tabula rasa* of values. Africa had its own traditional religion where human beings lived very close to nature and where spirituality emanated from various sources such as the world of plants, the world of rocks in perfect harmony with human beings.

As a matter of fact, from pre-colonial to postcolonial periods, Africa bore the brunt of world suffering with the displacement of its children and of its resources. Long episodes of slavery and colonization left deep scars on the continent to explain why most of its countries lag behind on the human development index ranking and count among the poorest countries in the World. The impact of slavery and colonization on the development of African countries is manifest to account for, in some parts, the prevalence of diseases, hunger, and conflicts. In this regard, Senegal has been privileged to know relative peace where dialogue has been promoted to a core value at communal as well as at national levels. In fact, Senegal can boast to be among the very few African countries that have not known military coups. Political power has always been transmitted through peaceful transitions. We owe this stability to our long traditions of building consensus over the exercise of power, accurate visions from leaders and the belief in the human resource as the most valuable input for development. In addition, Senegal benefitted a lot from colonial administration with the choice of Saint Louis first and then Dakar to serve as capital cities for former French West Africa. When Senegal became independent in 1960 like most African States, a relatively good road infrastructure existed with important facilities to host the first national institutions, among which a strong and reputable school system.

Coming to its culture, as indicated earlier, the combination of local realities and foreign influences created a culture with several layers of different norms still visible on Senegalese culture and explain some of its peculiarities among which, how in a country of 95% of

Moslems it is possible to have as its first President Leopold Sedar Senghor,¹ a Christian from a minority group, a *Sereer* who received strong support from *marabouts* or Moslem clerics to access power as first President in 1960. Both the second and third Presidents among the four so far at the helm of Senegal as an independent nation are Moslems by faith but are married to Christian wives. It is important to add their wives are also practising Christians and regular church goers. The most conspicuous symbol of that syncretism is in the birthplace of the first President Leopold Sedar Senghor, in Joal and Fadiouth where Moslems and Christians share the same cemetery and their families are a mixture of Christians, Moslems, and animists interacting social without any sign of discrimination or hostile prejudice. Peaceful coexistence has been as always a rule in those communities.

It is in the above mentioned context that I want to examine two important concepts: « Teranga » and « Pleasant Parent Kinship ». Looking at ethnicity, the first concept is typical of the Wolof ethnic group². The vocable « *Teranga* » is a wolof word. However, today, it is not just limited to that group. Other linguistic or ethnic groups share cultural background and have incorporated same values as the Wolof. By visiting other ethnic groups we find a sort of continuum influencing even French which is the official language of the country. Fula people³ share the value of « *Teranga* » but call it « *Teddungal* ». The Sereer call it « *Tedanga* ». The Joola call it « *masuman* ». The Mandinka call it « *ndiatiguia* », finally the Soninke call it « *daroya* ». All those words refer to the same concept and have the same meaning. Those ethnic groups share the same territory with the same cultural influences.

For a better understanding of the wolof concept « Teranga », there are two verbs, one is « *teru* » which means to welcome and the other is « *teral* » which means « be hospitable to a guest ». In other words, « teranga » is a highly valorised social act in front of a foreigner. It does not say that you need to know the person. There is an attitude of openness to anyone who knocks at your door, you are expected to show enthusiasm, a welcoming face, and provide comfort to the visitor before getting to the purpose of the visit. Providing comfort means offering a seat, water and food to him or her. In some of the contexts, it is even possible to offer a bed for the night.

¹ As first President of Senegal, President Leopold Sedar Senghor was the one who popularized the term « teranga » by calling Senegal « country of teranga » to express the peaceful nature of Senegalese people. President Senghor was a fine scholar known for his contributions to French culture and language.

² Wolof is an ethnic group we can find in Senegal, in the Gambia and in Mauritania. In Senegal, Wolof people are people who live in the regions of Baol, Cayor, Diambour and predominantly in the regional of Dakar, the capital city of the country. Wolof is the most spoken language in the country. About 80% of Senegalese people speak Wolof even though just 44% say they are of the group. Because Wolof developed in an area of trade it has become a sort of *lingua franca* among Senegalese people. There are 28 different ethnic groups in Senegal with different languages or variations in parlance.

³ Second largest group when Peul, toucouleur, and laobe are combined. The Fula group is one of the largest groups in West Africa. It is possible to find them in most West African states with minor variations in the way they speak. Most of them are involved in agriculture and animal husbandry. Fula people are traditionally herders.

The second concept to examine in this paper is « Pleasant Parent Kinship » which means the establishment of relationships where disputes or quarrels are not allowed. The relationship that exists should be pleasant, with jokes. « Pleasant Parent Kinship » is a very complex network of relationships within which hostility is not allowed when people get to identify each other. Joking relationships begin within the family structure. Children's of an aunt and children's of an uncle are cousins and as such, they are not allowed to develop enmity among themselves. On the contrary, words that are even rude can be used without being seen as socially rude or inappropriate. They are meant to trigger laughter, not hurt. Another level where « Pleasant Parent Kinship » applies strongly is with patronyms. Each patronym has one or two corresponding patronyms where culture bans violence and enmity. People are taught in their education cycle never to do harm to someone of this group with so and so patronym. What happens most of the time, people might quarrel but as soon as they realize that there « Pleasant Parent Kinship » between them, the first to understand it will change the tone and use words that could even be seen as inappropriate. The discussion will end with jokes, laughter, and shaking hands amicably. A more revealing area is with ethnic groups. For instance, the Fula and the Sereer share that culture. The Sereer and the Joola share the same joking relationships. Stories are even given to illustrate that their ancestors came from two sisters. So, parenthood is found here to explain why they should never quarrel. That network of complex connections is used to mitigate conflicts, especially at communal level.

Furthermore, the two concepts redefine Senegalese parenthood as it is not just based on blood kinship but people are united beyond closed family units by values of hospitality and tolerance where a stranger feels welcome in any visited home. Parenthood goes beyond families to cover symbolical forms with deep roots in old communal myths. While « teranga » opens the heart, urges the host to show a clean and hospitable face to any visitor, « Pleasant Parent Kinship » creates a network of relationships through patronyms, family kinship, ethnic group affiliations where people are taught never to do harm to each other. Just an example, in the Southern part of Senegal, there is an ethnic group called Joola. They have been in conflict (armed groups) with the central state for 38 years now and want to secede from the Northern Part of Senegal. A « Joola » a Southerner will never kill a « Sereer » (living in the Central part of the country) knowingly. The reason is that « Joola » and « Sereer » are related by « Pleasant Parent Kinship ». A « Joola » could kill a « Joola » which is not common but « a Joola » killing a « Sereer » is abomination. It is understandable why the Central state is always sending governors from « Sereer » group to run administration in the south. Most civil servants come from that group to avoid killing or kidnapping by rebel groups in the south.

I . Definition of concepts

Those peculiarities are due, among other things, to a culture of tolerance embedded in the vocable *Teranga*, a concept that shows a welcoming and accommodating nature of the Senegalese people with regard to strangers. Perhaps, it is this sense of compromise that saved the country from political turmoil in a continent ravaged by military coups and ethnic clashes. Moreover, Pleasant Parent kinship, the second concept in this paper, has come to reinforce that openness of Senegalese people and serve as a traditional mechanism to help ease off most conflictual situations. Both *Teranga* and Pleasant Parent kinship are deeply rooted in Senegalese society.

The concept of *Teranga*, with the support of many other mechanisms such as « Pleasant Parent kinship » or its French translation « Parenté à plaisanterie » finds deep resonance with Senegalese social structure and strong life ideals to ensure that any Senegalese can co-exist with other members of his or her society and even beyond national borders. It has become a frame of mind that puts Senegalese people in constant interaction with the other, not the other as someone to conflict with but someone to show hospitality and comfort to. Today, *Teranga* is, as a matter of fact, is a brand name for Senegal and Senegalese people in Africa. It calls for generosity, for openness to other people. Senegal is referred to as « Le Pays de la *Teranga* » or the Country of *Teranga*. The national soccer team players of Senegal are called: « Les lions de la *teranga* », to mean « The Lions of *Teranga* » urging the players to combine the power and strength of the lion together with fair play, courtesy and elegance in a competition. As a core value in Senegalese society, *Teranga* implies empathy and solidarity with anyone who knocks at your door. A. Bellagamba⁴ says that in Senegambia society, to give is a sign for anyone to deserve a position in society. In other words, what is expected from people belonging to nobility is their generosity, their capacity to open their homes to others, their ability to share what they have with others regardless of who those could be.

II. Illustration of *Teranga* and Pleasant Parent Kinship contexts.

The first element of *teranga* is the greeting sequence and the time it takes before any serious conversation can take place. Long greetings with a newcomer is a sign of consideration and provides the visitor with a sense of comfort before any serious matter is addressed. It is very inappropriate, especially in traditional communities, to reduce greeting to just « Hello », or « Hi ». Greetings go through a litany of evocations from the person wellbeing to the family to go to the wider circle of the extended family. The host will enquire about peace with various members of the family, about property without truly knowing the visitor's condition. It goes to offering water and food.

⁴ Paraphrased from A. Bellagamba, (2002), *ethnographie, histoire et colonialisme en Gambie*, Paris : l'Harmattan, pp : 160-161

Pleasant Parent Kinship is another core value for peaceful co-existence in society. It establishes relationships through patronyms of people, family relationships, ethnic groups, and clans where peace is absolutely required among people sharing those connections. Those are called « cousins » which means that people sharing that relationship are required never do harm to a person within that space. You can joke, use inappropriate language if you wish in front of your « cousin » but should never do harm intentionally. It is believed if you do harm to your cousin something bad will happen to you. This goes into education and members of society are brought up with those views. The belief is strong that any transgression will result in punishment from hidden forces. This is enshrined so deep in local culture and is transmitted from generation to generation. Pleasant parent Kinship relationship also applies to grand parents and grand children. Their relationship is supposed to be very amicable. A grand father or a grand mother can even wish death to a grand child but this has no effect. It is even seen as an antidote to death for the grand children. Among Fula and Sereer, notions of master and slave come up in the conversations but they are not to be taken seriously. They are just to create an atmosphere of mockery. Here, it should be understood that that mockery is never about a physical handicap of the other or any deficiency that can be badly felt by the other. Any discussion finishes with laughter or smile to mean that it was not meant to shock.

The first stage for pleasant parent kinship is with « cousin », when your fathers or mothers are related. Then, pleasant parent kinship moves to patronyms. Diop and Ndiaye are the most common patronyms in Senegal. The clause of Pleasant Parent Kinship exists between those families. A Diop should not do harm to a Ndiaye. This exists in most patronyms. As greeting commonly begins with asking a person's last name, once the name is known, Pleasant Parent Kinship can come in the interaction. In this regard, any village taken can become a set of family networks that recognizes among members Pleasant Parent Kinship mechanism.

Another aspect of pleasant parent kinship is what is seen as « joking relationship ». You can make fun of your cousin, say nasty words to him or her but this is not meant to be wicked and should not be taken seriously, should not be seen as harmful. It happens most of the time in a situation of anger someone to realize that the person in front is a « cousin » through hints by patronym or by ethnicity, then suddenly the discussion becomes lively and finishes with jokes and laughter. The problem is settled. They hug each other after having recognized the importance of the family tie they have.

III. The limits of teranga and Pleasant Parent Kinship

If teranga and Pleasant Parent Kinship show one of the best faces of Senegambia traditions, it is however important to imagine that we are not in the best of all possible worlds. Senegal social structure includes caste system based on social positions inherited from ancestors and transmitted to generations. Nobility referred to as “geer” comprise the class of educators, of cattle breeders. The “neeno” include artisans, all the categories of people who do manual

work. They constitute the lower class. One important feature of nobility is generosity, the capacity to give.

The use and abuse of teranga in human interactions are changing the way those castes operate so much so it becomes difficult to identify those to categories from the way they behave, especially as some lower caste people have become rich and have adopted typical high caste behaviour. In fact, teranga has allowed some groups to commodify their relationships and the act of giving in a context where social status depends on how much money one has, manifestations of teranga have changed Senegalese social stratification based on nobility versus the class of the artisans. So any low caste person if prodigal can move from his or her class to nobility and be recognized because of generosity. By the same token, there is temptation from someone belonging to the nobility class to make bad use of public funds because of this strong desire to be part of the group of generous people. That has very bad consequences on Senegalese administration. However, it is not right to say that Teranga and Pleasant Parent Kinship have gone out of fashion. Recent interpretations in the ranking of countries in the perception of corruption have not been able to translate accurately some of African interactions. Indeed, Western patterns for corruption do not correspond to what Africans see as corrupt practice. Teranga can be one of those borderline situations where giving can raise some suspicions about what is expected in return. In the mind of the person who gives in the context of teranga, there is nothing to expect if it is not to be recognized as belonging to the higher caste.

IV. Teranga and the emerging security threats

Teranga described as a positive attitude towards any guest may be dangerous in this context where terrorists move and settle in some places with an agenda most of the time unknown for local people. There is no doubt that today's security situations require caution with foreigners, especially when they look unfamiliar. As a matter of consequence, people are becoming more and more cautious. This change of attitude towards a visitor is creating a new sense of "alterity" where the other is seen as a potential threat not necessarily someone to give time to for greater comfort before engaging any discussion about the purpose of the visit. In this regard, security services are re-educating groups to move away from their rather naïve perception of the foreigner and see that new paradigms are needed to cope with current security situations. However, it is important to note that teranga is still in action but changes are under way as we live in a world that has gone global. Through new technologies and sophisticated means the world has become a small village.

Conclusion

Teranga and Pleasant Parent Kinship remain, despite new threats to communal life, values to be preserved. Pleasant Parent Kinship creates a space of lively and joyous discussions. People may exchange words that look offensive to those who are unfamiliar with this practice

but in the end, everything is concluded with good humour, laughter, and mockery which is not meant to hurt the person.

Teranga acts like cement to put people together to make use of their good nature to bring comfort to a visitor. It assumes that rules of courtesy should be observed. It does not imply that the visitor could catch his or her host off guard.

Changes are under way but very timidly as people still want to keep their old habits of openness and courtesy. The other should be treated well. Teranga urges people to respect basic rules of hospitality to anyone who comes to visit.

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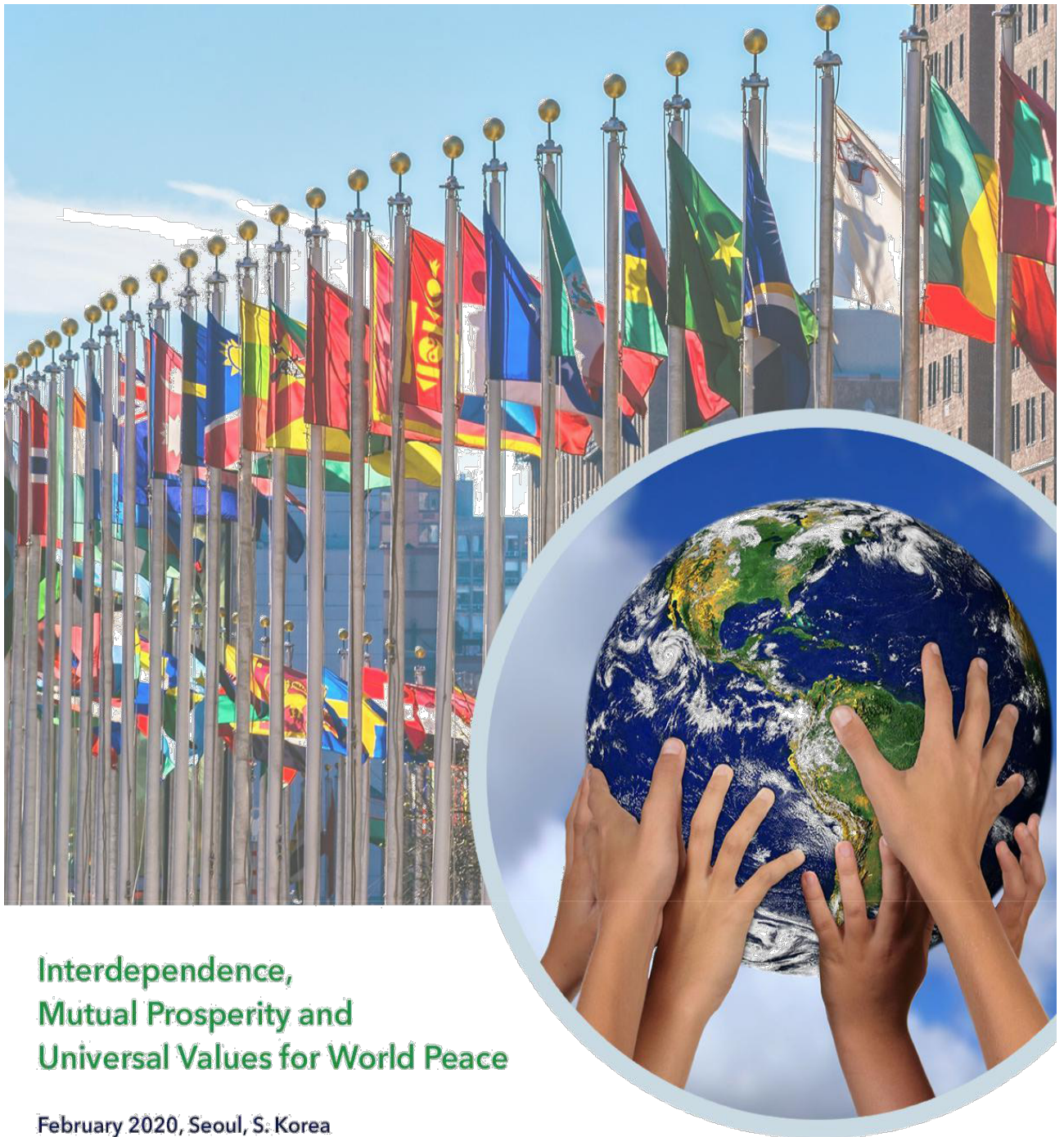
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Global Vision for Peace: A Participatory and Integrated Approach

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The last decade witnessed a rise in violent conflicts that are becoming more complex and protracted. Today millions of children are trapped in situations of war, conflict, violence and displacement that disrupt the fabrics of their societies and compromise the very foundations of their institutions. They are being killed and maimed, and appalling abuses are perpetrated against them and their children. Compelled by this devastating situation, “We the Peoples” of the United Nations have reaffirmed their commitment to save succeeding generations from the scourge of war, adopting agendas, action plans, and resolutions heralding a new vision for peace— a vision that includes people as agents of change and drivers of peace. The paper demonstrates how we can capture this vision and make this transformative shift, elevating the role of people in our pursuit of peace.



**Interdependence,
Mutual Prosperity and
Universal Values for World Peace**

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Global Vision for Peace: A Participatory and Integrated Approach

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Since the beginning of the nineties, the number and intensity of armed conflicts had declined. This was in large measure achieved through peaceful settlement of conflicts accompanied by peace support at the local, national, regional, and international levels. The United Nations had played a critical role in supporting this positive trend through its Peace Operations and through the work of its wider political human rights and development pillars.

Despite this overall spread of peace, the last decade witnessed a rise in violent conflicts.¹ They are also becoming more complex and protracted, involving more non-state groups, regional, and international actors. They are more intractable and less conducive to a political resolution.² More importantly, they are becoming threats to global peace and security. Insecurity (Political and Criminal Violence, Civil Unrest) has become a primary development challenge of our time.³

This is requiring more concerted efforts and effective synergy by the international community to prevent and minimize the dangers associated with conflict and violence and their devastating consequences on our society, eroding all chances of peace, justice, and development.

The World Bank and United Nations report *Pathways for Peace: Inclusive Approaches to Preventing Violent Conflict* projects that more than half of the people living in poverty will be found in countries effected by high levels of violence by 2030.⁴

Today, millions of families find themselves trapped in situations of war and violent conflict that disrupt the fabric of their societies and compromise the very foundation of their institutions. As revealed by a new Save the Children report, more children than ever before, at least 420 million children are living in conflict zones. Twenty-nine million children or 1 in 5 were born into conflict in 2018.⁵

The impact of violent conflict on families and communities is tremendous and should not be tolerated. In addition to indiscriminate killings and maiming, appalling abuses are perpetrated against them, their children are trafficked and enrolled as child soldiers, and combatants.

Women and girls also face the atrocities of sexual violence and exploitation which include rape, sexual slavery, forced marriage, and trafficking.⁶ Sexual exploitation is still used as a tactic of war and terrorism, destroying families and communities attacking their dignity and humanity.⁷

When their homes and communities are no more safe havens, and when their streets become battlefields and their schools used for military purposes, families flee for their lives in search of safety in the neighboring countries or thousands of miles away from their homeland.

This is a time of unprecedented displacement of more than 70 million people, primarily women and children.⁸ An estimated 50 million children have migrated across borders or have been forcibly displaced, and 28 million children have been uprooted by horrific violence.⁹ The danger they encounter during their harrowing journey includes exploitation and violence, abduction and detention, xenophobia and discrimination.¹⁰

The plight of families and children whose lives have been shattered by violent conflict continues to haunt us... Images of families and children fleeing their homes, communities, and villages continue to haunt us... Their perilous journeys continue to haunt us... But what should haunt us more is the full extent of people's pain and loss...as well as their resilience and moral courage, which is not captured and is under-reported or recorded. Rarely are the families asked how the conflicts has affected them and violence affected them, or what would make their lives better, and how could we change the tide of violence... towards a path to peace... reconciliation and dialogue.

It is in this context of devastation and complexity that the United Nations continues its journey to further advance the ideals of,

"We the People of the United Nations, determined to save succeeding generations from the scourge of war and to reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women, and nations large and small..." further they say, *"and to unite our strengths and to maintain international peace and security."*¹¹

Nevertheless, the United Nations continues its journey, to further advance its ideals and fulfill its goals, in a new era of building a world of peace. In an era where people are at the centre of peace and development efforts...In an era of dialogue and reconciliation...In an era of protection of civilians...in an era of sustaining peace... Most importantly, in an era of inclusion and partnership with all members of society, including women, youth, and children in the service of peace. Who also express themselves saying that they want to be heard, not only as victims of violence, conflicts, and displacement but as agents of change and drivers of peace.

In laying the foundation of an environment conducive to peace and sustaining peace, the Un General Assembly adopted in 1997 the ground-breaking resolution 52/15 proclaiming the year 2000 as the International Year for the Culture of Peace¹². In its resolution 53/25 adopted on the 10th of November 1998, it proclaimed the period 2001-2010 as the international decade for a Culture of Peace and non-violence for the children of the world.¹³ On the 13th of December 1999, the General Assembly adopted a Declaration and programme of action on the Culture of Peace.¹⁴ Subsequent resolution adopted every year have reaffirmed the

commitment of the United Nations to build and promote the Culture of Peace. On the occasion of the observance of the 20th anniversary of the Culture of Peace and the United Nations high-level forum held on the 13th of September 2019, the General Assembly

adopted on the 12th of December the annual resolution A/74/21, titled “Follow-up to the Declaration and Programme of Action on a Culture of Peace” that further reconfirmed the commitment of the United Nations to the follow up of the Declaration and programme of action on a Culture of Peace.¹⁵

The vision of the Culture of Peace was furthered captured by the 2030 Agenda for Sustainable Development, and the “Sustaining Peace Resolution.” In the historic and memorable meeting of the General Assembly on the 25th of September 2015, all member states adopted the transformative 2030 Agenda. The Agenda, which is universal, integrated and indivisible in nature recognized for the first time the direct link between peace, justice, and development. Its seventeen goals range from ending poverty in all its forms everywhere to ensuring inclusive and equitable quality education to reducing inequalities within and among countries, to achieving gender equality, to taking action to combat climate change, and also to promoting peaceful and inclusive societies as articulated in goal 16.¹⁶ The Agenda calls for:

“Peaceful, just and inclusive societies that provide equal access to justice and that are based on respect for human rights (including the right to development) on effective rule of law and good governance at all levels, and on transparent, effective and accountable institutions.”¹⁷

In signing on the 2030 transformative Agenda, the world leaders expressed their determination to foster peaceful, just and inclusive

societies that are free from fear and violence, and for “not leaving anyone behind.”¹⁸

The ground-breaking Sustaining Peace Resolutions: further confirmed the indivisible agendas of sustaining Peace and Sustainable development. They also emphasized the importance of a comprehensive approach to sustaining peace, particularly through the prevention of conflict and addressing its root causes. They also promote sustained and sustainable economic growth, poverty eradication, social development, national reconciliation, and unity, including through inclusive dialogue and mediation. Most importantly the resolution confirms the vital role of women, youth, families, and communities in preventing conflict in peacemaking, peacebuilding and sustaining peace.¹⁹

The importance of the participation of all stakeholders in the service of peace was affirmed in the Plan of Action to Prevent Violent Extremism, it calls on for the engagement of

communities and families, including women, girls, and young people to prevent violent extremism.²⁰

Twenty years ago, on the 31st of October, the Security Council adopted the resolution 1325. The Landmark resolution affirmed the role of women in the prevention and resolution of conflicts, peace negotiations, peacebuilding and peacekeeping. It urged all actors to increase the participation of women and incorporate gender perspectives in all United Nations Peace and Security efforts.²¹

The resolution on “Youth Peace and Security” (2250) reinforces the power of young women and men in shaping peace and security in the world. It urges the international community and government to support the youth efforts and integrate them in decision making at all levels, carrying out intergenerational dialogue. It further highlights the important role of education, skill development, and employment facilities in the struggle against poverty, social and political marginalization and exclusion that are driving factors for war and extremism.²²

To crystalize this new vision and action for preventing conflict, building and sustaining peace, the United Nations Secretary-General Antonio Guterres introduced a set of mutually reinforcing reforms to ensure that the UN is more fit for purpose including the realm of Peace and Security and that all its agencies should work effectively together to achieve the development and Peace Agenda.²³

In his January 2018 report on “Peace-building and Sustaining Peace,” he said:

“The scale and nature of the challenges of sustaining Peace calls for closer strategic and operational partnerships among the United Nations, national government and other key stakeholders, including international, regional, and sub regional organizations, international financial institutions, civil society organizations, women’s groups, youth organizations, and the private sector.”²⁴

Hence, it has become important to shape innovative, transformative, and participatory approaches to address both Policies and global action to prevent conflicts reduce violence, build and sustain peace.

In the last two years, the UN, its agencies, the World Group and other research and policy organizations including Pathfinders for Peaceful, Just and Inclusive Societies, presented to the world an integrated approach towards peace that calls on all institutions to work together in the path of preventing violent conflict. This call does not only emphasize that peacebuilding strategy should include the policy, regional, national and local level, but also to ensure local participation and ownership of peacebuilding design and practice.²⁵

A growing body of evidence shows that participation of communities, women, youth and children in all aspects of peacemaking, peace building and sustaining peace has a tangible impact on human security, and on peace and security in general. They play an important role in sustaining peace by anchoring peace dividends in their communities. For example, women are vocal advocates for preventing conflict before it breaks. We know that in numerous countries women are at the forefront of campaigns to diffuse tension between different groups. Women frequently bridge political, economic and social divides, as they are able to build a broad coalition for peace, they also take part in national and local reconciliation.

There is also, now, an emerging network of young women for peace and leadership that supports and empowers young women and girls in conflict affected countries to fulfill the role in peacebuilding and counter violent extremism.²⁶

The new and well-established body of scientific evidence from multiple disciplines (neuroscience, psychology, economics) that continues to substantiate the link between the early years of life and early life environment with long term well-being, violence prevention and behaviors linked with more peaceful communities.^{27, 28, 29} The formative years of life and intra and inter family and community relationships are powerful agents of change that can promote resilience social cohesion and peace.³⁰

As such investing in the positive development of Young Children is a path to creating a culture of Peace and sustain Peace at home in the community and society.

Unfortunately, until now, the Peacebuilding discourse and practice has failed to be inclusive and acknowledge the participation of every member of society in building and sustaining peace, for this reason, all the efforts to implement approaches to prevent violence, maximize justice, equality, and harmony yielded mixed results.

But now, it is the time to elevate the role of people to the Global Peace Agenda... It is time to demonstrate by scientific evidence and practice the transformative power of participatory and integrated approaches to building peaceful, just, and inclusive societies.

In this regard, we need the commitment of the International Community to translate promises, resolutions, and plans of action into reality for a more just, peaceful, and secure world.

We need responsive, compassionate, and accountable World and National leaders, as His Majesty King Abdullah of Jordan in addressing the European Parliament in Strasbourg, and in stressing the importance of leadership said, that leaders have a responsibility to safeguard their people's long-term interests and welfare.³¹

We need to place the interest of People in the heart of our development and peacebuilding and sustaining peace efforts. This means we have to reach everyone. We must empower

women and girls, men and boys, and help them rebuild their lives, fulfill their human rights, and restore their dignity.

We need international and national actors to rethink strategies and programmes, and to make them people-centered, where local communities can play an important role in decision making. We must build on what people know and give them space to be the driving force for change. By doing so, the joint international, national, and local effort can promote self-reliance, local ownership and peace dividend.³²

We need all responsible actors to build programmes, that are long term and inclusive. They should also go beyond physical security and geared towards human security, peace, and justice. They should include access to social services, such as health care, education, and economic empowerment. Most importantly, they should include reconciliation and mediation mechanisms, creating vital spaces for people to voice their grievances and manage conflict through non-violent means.

The task ahead to build and sustain peace is formidable, but there is room for optimism as each one of us is responsible. “It is our shared responsibility,” as the former UN Secretary-General Ban Ki-moon used to say. There is no better time than now to unite our strengths to change the tide of violence and build a peaceful world for all of us and the generations to come.

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Civilization for Peace¹

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Civilization for peace

Addressing the Political and Economic Dimensions of Peace, let me start by quoting Samuel Huntington's final conclusion of the debate on his book "The Clash of Civilisations?" that was published in 1993. Indeed, the "paradigms of the post-cold war world" and the analyses of the Eaton Professor and Director of the Institute for Strategic Studies at Harvard University might help us finding some answers to the questions linked to the actual political situation of the global world. The author's reply to his critics in "the Debate" concludes with a question: "If not Civilizations, What?" and its final paragraph is the following:

"History has not ended. The World is not one. Civilizations unite and divide humankind. The forces making for clashes between civilizations can be contained only if they are recognized. In a world of different civilizations each will have to learn to coexist with the others. What ultimately counts for people is not political ideology or economic interest. Faith and family, blood and belief, are what people identify with and what they will fight and die for. And that is why the clash of civilizations is replacing the Cold War as the central phenomenon of global politics and why a civilizational paradigm provides better than any alternative, a useful starting point for understanding and coping with the changes going on in the world."

Looking at the changes that have occurred since the publication of Huntington's thesis, one major change was the global impact of the digital revolution. Governance of society is submitted to the world wide web. But whereas information is omnipresent, its comprehension depends on the capacities of understanding of the individuals, as well as their interpretation of all kinds of information, such as tweets, pictures and fake news. Addressing the interpersonal:

¹ A Vision for World Peace: The Interpersonal vis-à-vis the Political and Economic Dimensions of Peace.

The latter half of the twentieth century opened the way to a serious academic study of the many dimensions of peace. This panel brings together academics and international civil servants who share their views on dimensions of conflict resolution and reconciliation that are not automatically factored into regional, inter-state, and multilateral relations.

The education of people is of the outmost importance.

Some member states of the EU celebrated last year the end of the Second World War. My country, Luxembourg, was severely damaged by the very last attack of the German troops by Rundstedt in November 1944 and 8000 American soldiers died for our liberation, while the war was already lost for the Germans. Such memories remind us of the tribute to pay in armed conflicts. The fall of the Berlin wall 30 Years ago was one more occasion to look back at the history of the end of the Cold War, and the dismantling of the Soviet Union later on.

In the meantime, new walls are being built in the US, the Middle East and even in European Hungary, not for ideological reasons, but to prevent the immigration of refugees and migrants. Addressing the political I say:

Walls are not a solution for solving conflicts.

The European Union is not a homogenous gathering of 27 Nation States, but 70 years of peace are the result of the Union. Three years of debate about Brexit could not convince the British voters to reject it. Is this the beginning of the dismantling of the EU, while this long period of peace and economic growth was an incentive to new member states to step in? Actually, the new enlargement of the Union has no majority; the political situation in some member states is in rather bad shape at this moment. Low participation in democratic votes is the expression of a serious crisis of governance and political stability. The rise of antisemitism in Germany is proven by the analysts. Extreme right political parties are flourishing; their speeches remind us of those before the Second World War.

Trust between people and their leaders has vanished

The economy is dominating political decisions and its possible clash ahead stimulates selfishness and egocentrism. Facing the increase of poverty and migration as well as the effects of climate change, the behaviour of the individual will have a very great impact on our common future. The last century had set the goal to banish worldwide poverty.

Whereas Culture, such as defined by UNESCO in 1982, or Civilisation as mentioned by Huntington, is not really addressed in the political and public debate, Cultural diversity in the EU is showing how big is its influence on the behaviour of people.

At this very moment, some conflicts based on this diversity are at the origin of a possible dismantling of the European project. The challenge of a better knowledge of the history, culture, language, music and religion of our neighbors is preliminary to understanding their attitudes: those of the 27 Nation states.

What is it however that makes people stay together, what provides identity and roots?

What is a Nation and a Nationality?

Let me quote Rabbi Lord Jonathan Sacks who gave a great speech in the European Parliament in 2009 and spoke the following:

“You can have a society without a state – that has happened at various times in history – but can you have a state without a society, without anything to hold the people together? I do not know. You can hold people together in many different ways: by force, by fear, by suppressing cultural differences, by expecting everyone to conform. But when you choose to respect the integrity of many cultures, when you honour what I call the dignity of difference, when you honour that, then to create a society you need a covenant. A contract is about interest, a covenant is about identity. Covenant restores the language of cooperation to a world of competition. It focuses on responsibilities, not just on rights. Rights are essential, but rights create conflicts that rights cannot resolve: Rights without responsibilities are the subprime mortgages of the moral.

We must respect others if we expect others to respect us;

We must honour the freedom of others if they are to honour ours.”

Europe needs a new covenant and the time to begin it is now. This is a speech we should share in difficult times.

Rabbi Sacks also told a story I will repeat to you:

“The Prophet Isaiah foresaw a day when the lion and the lamb would live together. It has not happened yet. Although there was a zoo where a lion and a lamb lived together in the same cage and a visitor asked the zookeeper: ‘How do you manage that?’ The zookeeper said: ‘Easy, you just need a new lamb every day!’”

And to conclude Lord Jonathan Sacks said:

“There was a time when the lion and the lamb did live together. Where was that? In Noah’s Ark. And why was that? It was not because they had reached Utopia but because they knew that otherwise they would both drown.” So much for what Rabbi Jonathan Sacks shared.

I dare ask today, who is the lion, who is the lamb and where is the zookeeper? Is the boat on which we are in still safe, or has it some leaks? The Tower of Babel collapsed because people no longer understood each other’s language.

Aren’t we together on Noah’s Boat or Ark? Of course, those who do not know this story will not understand its message. Why should we save the planet if we have not learned how to live peacefully together?

Judicial Recognition of Fundamental Rights: Human Security Considerations

Dr. William D. Lay, J.D.

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The Human Security Concept

Four Freedoms:

- Freedom of Religion
- Freedom of Speech
- Freedom from Want
- Freedom from Fear

Aspects of the Rule of Law

- Accessibility
- Just Laws
- Open Government
- Accessible and Impartial Dispute Resolution

Just / Unjust laws

The Rev. Dr. Martin Luther King Jr., in his famous “Letter from the Birmingham Jail,” wrote, “How does one determine whether a law is just or unjust? A just law is a man-made code that squares with the moral law or the law of God. An unjust law is a code that is out of harmony with the moral law. To put it in the terms of St. Thomas Aquinas: An unjust law is a human law that is not rooted in eternal law and natural law.”

Just / Unjust laws

“Law is something more than mere will exerted as an act of power... Arbitrary power, enforcing its edicts to the injury of the persons and property of its subjects, is not law, whether manifested as the decree of a personal monarch or of an impersonal multitude... Notwithstanding the representative character of our political institutions.”

- Justice Matthews, in *Hurtado v. California*, 110 U.S. 516 (1884)

The Object of Government

“The object and the end of all Government is to promote the happiness and prosperity of the community by which it is established, and it can never be assumed that the Government intended to diminish its power of accomplishing the end for which it was created While the rights of private property are sacredly guarded, we must not forget that the community also have rights, and that the happiness and wellbeing of every citizen depends on their faithful preservation.”

- Justice Taney, in *Charles River Bridge*, 36 U.S. 420 (1837)

General Principles of Law and Reason

“There are certain vital principles in our free republican governments which will determine and overrule an apparent and flagrant abuse of legislative power, as to authorize manifest injustice by positive law or to take away that security for personal liberty or private property for the protection whereof of the government was established. An act of the legislature (for I cannot call it a law) contrary to the great first principles of the social compact cannot be considered a rightful exercise of legislative authority. . . . [T]he general principles of law and reason forbid them.”

- Justice Chase, in *Calder v. Bull*, 3 U.S. 386 (1798)

The Reason and Nature of Things

“I do not hesitate to declare that a State does not possess the power of revoking its own grants. But I do it on a general principle, on the reason and nature of things: a principle which will impose laws even on the deity.”

- Justice Johnson, concurring in *Fletcher v. Peck*, 10 U.S. 87 (1810)

The Declaration of Independence

Laws of Nature and of Nature’s God

We hold these truths to be self-evident . . .

- Created equal
- Endowed by their Creator with certain unalienable rights . . . Life, liberty, and the pursuit of happiness
- To secure these rights, governments are instituted
- Deriving their just powers from the consent of the governed

- Right to alter or abolish
- Effect their safety and happiness

Mason / Jefferson

“All men are born equally free and independent”

- “All men are created equal”

Men “have certain inherent natural rights, of which they cannot, by any compact, deprive or divest their posterity”

- Unalienable rights

Mason / Jefferson

“among which are the enjoyment of life and liberty, with the means of acquiring and possessing property, and pursuing and obtaining happiness and safety”

- Life, liberty, and the pursuit of happiness

Lincoln on the Declaration

The founders meant “simply to declare the right so that the enforcement of it might follow as fast as circumstances should permit. They meant to set up a standard maxim for free society, which should be familiar to all, and revered by all; constantly looked to, and constantly labored for, and even though never perfectly attained, constantly approximated, and thereby constantly spreading and deepening its influence, and augmenting the happiness and value of life to all people of all colors everywhere.”

Due Process

Amendment V: “No person shall be ... deprived of life, liberty, or property, without due process of law”

Amendment XIV; “No State shall ...deprive any person of life, liberty, or property, without due process of law.”

Identifying Fundamental Rights for the Purpose of Selective Incorporation

Twining (1908) – “immutable principles of justice which inhere in the very idea of free government”

Snyder (1934) – “so rooted in the traditions and conscience of our people as to be ranked as fundamental”

Palko (1937) – “the very essence of a scheme of ordered liberty”

Duncan (1968) – can “a civilized system [be] imagined that would not accord the particular protection”

McDonald (2010) – historical analysis of the importance of the claimed right

Life, Liberty, and Property

Liberty – “By the term “liberty,” as used in the [14th Amendment], something more is meant than mere freedom from physical restraint or the bounds of a prison. It means freedom to go where one may choose, and to act in such a manner, not inconsistent with the equal rights of others, as his judgment may dictate for the promotion of his happiness; that is, to pursue such callings and avocations as may be most suitable to develop his capacities, and give them their highest enjoyment.”

- Justice Field, dissenting in *Munn v. Illinois*, 94 U.S. 113 (1877)

Life, Liberty, and Property

Liberty – “The liberty mentioned in [the 14th] amendment means, not only the right of the citizen to be free from the mere physical restraint of his person, as by incarceration, but the term is deemed to embrace the right of the citizen to be free in the employment of all his faculties; to be free to use them in all lawful ways; to live and work where he will; to earn his livelihood by any lawful calling; to pursue any livelihood or avocation ...”

- Justice Peckham, in *Allgeyer v. Louisiana*, 165 U.S. 578 (1897)

Life, Liberty, and Property

Liberty – “not merely freedom from bodily restraint but also the right of the individual to contract, to engage in any of the common occupations of life, to acquire useful knowledge, to marry, establish a home and bring up children, to worship God according to the dictates of [her] own conscience, and generally to enjoy those privileges long recognized . . . as essential to the orderly pursuit of happiness by free men [and women].”

- Justice McReynolds, in *Meyer v. Nebraska* (1923)

Limitations

“... when private property is ‘affected with a public interest, it ceases to be *juris privati* only.’... When, therefore, one devotes his property to a use in which the public has an interest, he, in effect, grants to the public an interest in that use, and must submit to be controlled by the public for the common good ...”

- Justice Waite, in *Munn v. Illinois*, 94 U.S. 113 (1877)

Limitations

“The liberty of the citizen to do as he likes so long as he does not interfere with the liberty of others, which has been a shibboleth for some well known writers, is interfered with by [many laws]... a constitution is not intended to embody a particular economic theory, whether of paternalism ... or of *laissez faire*. It is made for people of fundamentally differing views ...”

- Justice Holmes, dissenting in *Lochner v. New York*, 198 U.S. 45 (1905)

Limitations

“In prohibiting that deprivation [of liberty] the Constitution does not recognize an absolute and uncontrollable liberty. Liberty in each of its phases has its history and connotation. But the liberty safeguarded is liberty in a social organization which requires the protection of law against the evils which menace the health, safety, morals and welfare of the people.”

- Chief Justice Hughes, in *West Coast Hotel v. Parrish*, 300 U.S. 379 (1937)

Limitations

“I like my privacy as well as the next one, but I am nevertheless compelled to admit that government has a right to invade it unless prohibited by some specific constitutional provision.”

- Justice Black, dissenting in *Griswold v. Connecticut*, 381 U.S. 479 (1965)

Police Power

“... which are nothing more or less than the powers of government inherent in every sovereignty, ... that is to say, ... the power to govern men and things ... when such regulation becomes necessary for the public good.”

- Chief Justice Waite, in *Munn v. Illinois*, 94 U.S. 113 (1877)

Police Power

“Many attempts have been made in this court and elsewhere to define the police power, but never with entire success. It is always easier to determine whether a particular case comes within the general scope of the power, than to give an abstract definition of the power itself which will be in all respects accurate. No one denies, however, that it extends to all matters affecting the public health or the public morals.”

- Chief Justice Waite, in *Stone v. Mississippi*, 101 U.S. 814 (1880)

Resort to the Polls

“For protection against abuses by legislatures the people must resort to the polls, not to the courts.”

- Chief Justice Waite, in *Munn v. Illinois*, 94 U.S. 113 (1877)

Procedural / Substantive Due Process

Procedural Due Process: basic fair procedures

- Notice
- Opportunity to be heard
- Neutral decision maker

Substantive Due Process: laws must be fair and reasonable and further a legitimate governmental objective (in addition to specific constitutional protections)

- Prohibit the government from imposing unjust and arbitrary laws
- Economic liberties
- Other liberties – Privacy

Libertarianism

Libertarian wants the smallest, least intrusive government consistent with the maximum freedom for each individual to follow his own ways, as long as he doesn't interfere with someone else's freedom.

Robert Nozick - Anarchy, State and Utopia (1974)

“Only a minimal state, limited to enforcing contracts and protecting people from force, theft, and fraud, is justified.”

“Any more extensive state violates persons’ rights not to be forced to do certain things, and is unjustified.”

The *Lochner* Case

Lochner, the owner of a NY bakery, challenged a New York law that limited employees of bakeries to no more than 10 hours per day, and 60 hours of work per week

Lochner argued in for freedom of contract and property rights

The court agreed with Lochner

Holmes’ dissent in *Lochner*

“A constitution is not intended to embody a particular economic theory, whether of paternalism ... or of *laissez faire*.

“It is made for people of fundamentally differing views ...”

Substantive Due Process

In the modern era, the Supreme Court for the most part has rejected substantive due process as it applies to laws governing economic relationships.

But it uses it to justify the protection of certain civil liberties, such as the right to privacy.

The Role of the Adversary System in Human Security

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The adversary system is a development arising from the concept of “trial by combat.” It is a forum in which opposing sides present evidence, call witnesses and present arguments they believe best express their position. Both sides present their case before a jury, comprised of members of the community who make a determination. In contrast to some Civil systems, it is not a bureaucratic system in which tribunals, staffed by professionals conduct their own investigations, also staffed by professionals who commence cases and then dispense justice. The civil system is a development of Roman Law and Napoleonic law. The adversary system developed from the common law traditions of England. Individual cases were presented to the court. The outcome was determined by a jury. The compilation of these cases is the common law. Common law is the foundation of American jurisprudence. It has much to offer in the resolution of the issues of human security.

The adversary system allows those who seek redress an opportunity to choose a forum which they can argue as they see fit and present those arguments they wish to express to the trier of fact. The historical development of the adversary system is a compilation of individual cases and the development of a body of law, which is expressed in the common law. The common law is that part of the English Law derived from judicial precedent. This precedent is the holdings or results in prior cases. This is contrasted to the statutes and laws which comprise Civil Law. Civil Law is based on statutes and laws.

The benefits of the adversary system are that it allows for those with an interest in the outcome to present evidence, choose their representatives and argue their case before a non-biased trier of fact, often a jury. The case is presided over by a Judge without a stake in the outcome. The system allows those with the strongest interest to “fight” for their position. Both sides are permitted to present their cases. The rule of law is strengthened and aided by the adversary system which allows individuals to enforce their rights and have their grievances addressed. It protects restrictions on individuals by institutions and authoritarian forces. It directs those in power or acting in an authoritarian manner to comply with their obligations. When their actions result in a violation of the rule of law or an infringement of someone’s rights, it assures access to the courts and a remedy when people are not being treated equally before the law. When constituents feel they are being treated unfairly or actions against them are in violation of the Constitution, the adversary system presents them

with an opportunity to “go to Court.” There are numerous cases in which citizens have asked the courts to protect their practice of religion and to permit equal treatment in education, healthcare, and freedom of movement. These protections, among many others, have allowed citizens to preserve their basic rights, many of which are considered central to their human security interests today. They form the basis of constitutional law in the United States. Their holdings and the development of constitutionalism as shown in the caselaw in the United States offer a potential for resolution of many human security interests. The cases display the American interest to be free from force by the government and the ability to assert basic rights. The adversary system is a strong protection from potential authoritarian controls by the government or other groups, institutions and individuals. The adversary system does not require the involvement of government agencies or bureaucratic agencies to initiate or maintain the actions.

The access to the court system and the opportunity to have rights resolved in a fair forum is a hallmark of the American judicial system. It is also an effective means to contribute to an understanding and advancement of human security issues.

Human security can be described as the ability of people to exercise those basic human rights which are what we would consider to be valuable to all human beings and are central to those experiences which are at the very core of human existence and the meaning of what it means to be a human being. It involves freedoms like religion, speech, education and health. It includes things which we view both as necessary to a full life and freedom from other forces, which negatively affect our lives. When human concerns were addressed by Franklin Delano Roosevelt in 1941, he stated:

In the future days, which we seek to make secure, we look forward to a world founded upon four essential human freedoms.

The first is freedom of speech and expression--everywhere in the world.

The second is freedom of every person to worship God in his own way--everywhere in the world.

The third is freedom from want--which, translated into world terms, means economic understandings which will secure to every nation a healthy peacetime life for its inhabitants--everywhere in the world.

The fourth is freedom from fear--which, translated into world terms, means a world-wide reduction of armaments to such a point and in such a thorough fashion that no nation will be in a position to commit an act of physical aggression against any neighbor--anywhere in the world.

The statement of Roosevelt expressed the issues which later formed the foundation for human security. The concerns and the importance of these basic human rights contained in

the statement continued to develop and were expanded to reflect the historical events which followed the statement. The formation of the United Nations was an important step in the development of the rights, including those sought to be protected by subsequent treaties.

When Secretary-General Kofi Annan addressed world leaders at the General Assembly on November 10, 2001, he again dealt with the importance of human security and the actions of the United Nations. He emphasized the importance of human security at the United Nations. The concept of human security has continued to evolve and its development is hardly recognizable from its initial parameters. Human security now involves such areas as freedom from violence, freedom from prejudice, human trafficking issues, access to food, access to healthcare, access to water, access to food, access to employment and personal safety. The protections of human security not only involve personal issues important to individuals on a personal basis, they also encompass issues of the individual as members of a larger group. Large-scale human rights go beyond the rights for which individuals are entitled, but they impact society as a whole. Human societal issues such as migration, immigration, climate change, water rights, effects of increased heat on the environment, desertification, flooding and all the effects of global warming and its impact on rising sea levels and weather are critical to the survival of our world and those who inhabit it. The human security paradigm will continue to be influenced by traditional concerns of the effect of warfare on non-combatants and the now all too common situation where specific populations are targeted by both governmental and non-state actors. What was once the exception may be argued is the rule in certain areas. These developments can be viewed as a continuation of the historical factors which resulted in the formation of the United Nations and the numerous treaties and agreements which followed.

The Second World War and the horrors inflicted on entire populations resulted in the displacement and human crisis of incredible magnitude. As a result of the loss of life and atrocities committed on a previously unknown scale, the countries in what was later to become the United Nations sought a forum to resolve issues. The existence of nuclear powers and the results of genocide or ethnic cleansing created issues still being dealt with today. The adversary system is a system which offers protections to individuals from authoritarian governments and ideas. The adversary system is an important tool in maintaining lawsuits and enforcing basic rights. The actions against certain religions and ethnic groups today is highlighted by recent events portrayed in the media against these minority ethnic groups and certain religions. The development of organizations with antagonistic views toward specific groups also warrants concern. These organizations must be held accountable in courts by those affected by their actions. The actions taken against certain ethnic groups or certain religions is an example of the need to have a vibrant adversary system complete with the ability to bring both government and non-governmental actors to be held accountable for their actions.

The United Nations Charter was signed on June 26, 1945. Initially, human security was not central to its formation. The shadow of the atrocities and the displacements which resulted from World War II led to the formation of the United Nations. The actions of the

United Nations protected citizens. Undoubtedly, the openness of the forum exerted a pressure on the countries who were members. It was a positive force to influence countries to seek conformance to certain ethical norms. This pressure continues to exert its influence today within the worldwide forum in order to pressure governments to comply with ethical norms. The pressure has continued to increase exponentially with the advancement of worldwide news media and global access to the internet. These developments should be viewed as positive developments.

The development of human rights which was adopted in 1948 set forth human rights and the protection of human rights and established basic human guarantees to all people. The initial focus provided guarantees to all people. The central provisions were set forth in subsequent human rights conventions and treaties. As Bertrand Ramcharan noted in “Human Rights and Human Security”:

The link between security and human rights is important. This link is reinforced if we consider that human rights define human security. Individual, international, and national development requires the protection of human rights; therefore you cannot have security without the protection of human rights. Development requires respect for human rights, and respect for human rights prevents conflicts. Peacemaking must be built on human rights foundations and peacekeeping and peace-building must likewise give a central place to human rights considerations as indeed must incorporate human rights strategies.

The concept of human security has developed and become an influential force in today's thinking. Variations of the topic would increase the references exponentially. If the search included the media it would reflect a worldwide awareness of the many issues affecting human security and the daily life of the people of the world. These developments must be welcomed.

The worldwide exposure of the numerous human security areas creates opportunities to address, remediate or correct human security issues. These concerns involve the individual and his human security, both physical and non-physical. They can involve his ability to be free from violence, torture, or abuse. They can promote his ability to have shelter, food, employment and access to health care. In terms of his nonphysical rights, human security also involves his ability to practice his religion, to express himself, to take part in the government, and to be free of unequal treatment due to his ethnic background or religion, to name a few.

The protection of human rights is best protected by the adversary system. The adversary system and its impact on the rule of law permits an opportunity to protect basic human rights. The adversary system provides an opportunity to resolve disputes.

I have been a trial attorney for over 30 years. During that time, I have had selected many juries and have spoken to a large number of potential jurors. I have conducted over one hundred trials. These trials have included being an adversary on both sides of the conflicts. I have had an opportunity to conduct these trials in both State and Federal cases. I have

discussed the outcomes of those cases with the jurors themselves. My experience also includes Appellate practice and innumerable arbitrations and mediations. I have also participated in many trials where there was no jury, but before judges. These experiences have informed me of the value of the adversary system. This value of the adversary system is discussed at length in the remaining sections.

I would like to provide a particular orientation as a trial attorney to the value of the adversary system. Trials today, and in the historical development of the adversary system rely on jurors. This particular fact is often not addressed in discussions dealing with the legal system. The analysis often deals with the holdings or relevance of a particular case. The analysis often ignores the central aspect of all cases; they are decided by jurors.

The use of jurors places a particular emphasis on the human element in dispute resolution. This human element is a key component in the successful advancement of rule of law. This element is particularly relevant in dealing with human security issues.

The adversaries in the adversary system go through a process of selecting a jury. The system used today in the modern court would be familiar to the process used by attorneys hundreds of years ago. The process would also be familiar to the potential jurors. Jurors are called to the Court and are chosen at random to potentially sit as jurors on a case. They are sent to a room, where they may have their name called from a tumbler picked by a party or otherwise selected in a manner where chance selects who will be chosen. Today jurors may fill out a questionnaire. However, this is solely an aide in what comes next, the questioning of the jurors by counsel to select an unbiased jury. While experienced litigators may concede the selection of a jury is an opportunity to obtain an advantage, it is generally accepted the expert questioning by two opposing adversaries is a reasonable way to arrive at an impartial jury. (In some circumstances the court may pick a jury. Even in those situations the adversaries are consulted and the jury selection is in an open setting before all of the adversaries.)

In conclusion, in my experience, the advocacy system, where each party's interests are represented by an able professional advocate, in a process presided over by a neutral magistrate, culminating in a legally binding decision by a neutral decision-maker, is among the surest guarantees of the fundamental legal rights that are a cornerstone of human security.

The Contributions of Religious Civil Society to the Rule of Law

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I'm happy to be here. In this session we will focus on four broad levels. I will show how religion, religious freedom, and religious civil society institutions are historically, philosophically, empirically, and institutionally foundational for security and rule of law. We live in an era when civil society institutions face shrinking social space and people forget why religious freedom is so important for security and the rule of law. My argument is intended as an antidote to some views of religious people, forgetting how religious freedom is important for security under rule of law. Freedom of belief is foundational in several respects: It is historically foundational since other rights emerged in support or expansion of religious freedom. It is philosophically foundational because it protects the comprehensive belief systems in which other ideas are rooted and from which they derive their meaning. It is empirically foundational. It is a time-tested principle for advancing security and rule of law. It is institutionally foundational because it protects and fosters the institutions that engender the vision, motivation, and moral support translating religious and moral ideals into practice. Freedom of religion and belief institutions are foundational for rule of law. The idea of rule of law denotes a distinctive, historically rare form of law contrasting with other forms of law. Customary law is often linked with religious systems or bureaucratic law. The rule of law institutions of the sophisticated legal systems in the West and elsewhere emerged from other kinds of law, and can relapse back into them.

The legal system, laws and rules in a rule of law have certain general characteristics. For example, they are not retroactive, they are not vague. The discretion of judges in applying the laws is regulated, so that citizens know in advance what they is expected. But it goes beyond mere characteristics of rules. The rule of law enjoys autonomy in four respects. The rule of law is substantively autonomous. It is not identified with particular religious, economic, or political beliefs. Holmes explained that rule of law pertains to no particular economic system. It is institutionally autonomous. It is applied by separate and distinct institutions. Typically the judiciary is separate from other institutions. It is methodologically autonomous. It uses legal reasoning separate from scientific, moral, political, and economic discourse. It has its own method. It is occupationally autonomous, administered by a legal profession not subject

to the bureaucracy. If such autonomy is lost, the system relapses into a mere bureaucratic structure.

These characteristics enable the law to be more than merely the rule of man. Law systems granting religious freedom have been rare in world history, and require certain preconditions. One of these is social pluralism. In a homogeneous society there is no incentive to find a rule structure that provides overarching solutions to conflicts. Historically the separation of religious and state institutions goes way back to the Magna Carta in England. The church and religious institutions were recognized as different from state institutions and it was considered wrong for the state institutions to intervene in religious space.

Another interesting presupposition is that the legal system should embody natural or higher (divine, biblical) law. It was not always assumed that the legal system should embody higher law. Without social pluralism a rule of law system does not emerge in customary or bureaucratic states without separation of religion and state institutions, and the forms of autonomy of the rule of law do not emerge. Without a notion of higher law, the notion of constitutionalism is unlikely to emerge. It makes possible the notion of law as more than the outcome of the clash of interests. The combination of these factors makes possible the notion of a rule of law as opposed to the rule of man.

It is significant here that the foundational grandparents' right enables the paradoxical fusion of higher law with commitment to a particular religious tradition. This fusion underlies other rights, for freedom of religious belief is the oldest internationally recognized human right, linked with notions of dignity rooted in the idea that human beings are created in the image of God. It is the parent of other free expression rights. Milton's *Areopagitica* in 17th century England is an argument for freedom of the press, while it also lays out arguments touching religious issues.

Religion is the original context of non-discrimination and equality rights. We tend to think of equality in terms of race or other parameters, but the original context was non-discrimination on the basis of religion. It ties in with freedom of association as well: freedom of religion is foundational historically for the other rights. For instance, philosophically foundational religious freedom protects the right to hold different beliefs at the core of different communities. It's a reminder that state institutions are limited.

Religious beliefs constitute a fundamental reservation clause in the social contract that Madison taught, amounting to a prelude to our Constitution. As a basic tenet, religious obligations precede other forms of social contract like constitutions. People belonging to a religious community and holding religious beliefs would not enter a social contract if they thought it would violate their religious beliefs. Just as a treaty can have a reservation clause defining some issues left out of the treaty, likewise when people enter a social contract and entertain constitutional notions, freedom of religion or belief is a basic starting point. It is important to remember that this obliges the state to protect these, while also protecting the comprehensive belief systems in which other ideas are rooted, from which they all derive their meaning.

Freedom of expression is about expressing ideas, but freedom of religion is broader, protecting the entire setting for other beliefs to thrive. Foundational for modern constitutions embodying the four protections, the idea that societies could be founded on freedom of religion was at best a grand experiment based on Lockean theory. Two centuries of experience in the U.S. and other nations confirm that a stable society able to handle problems of security, reconciling them with rule of law, can be predicated on religious freedom.

This chart points out strong correlation between freedom of religion and other social goods. There is strong correlation between nations that protect freedom of religion and those that enjoy political freedom, freedom of the press, and civil liberties. Unsurprisingly they overlap. It is interesting that many other social goods are stronger where freedom of religion is protected: gender empowerment is high, a lower percent of GDP is spent on military, etc. Social research bears out the correlation between freedom of religion and other social goods. This book by Brian Graham and Roger Finke assembles and compiles many such statistics. A key finding, surprising those who manage security issues is that restricting religious freedom correlates significantly with religious violence. The usual reaction of officials when religious or inter-religious violence occurs is to crack down and restrict them. It is empirically validated that restricting religious groups actually worsens the security situation. The instinctive reaction to crack down and tighten restrictions is exactly what may cause the problem. Of course there are situations where intervention and regulation is appropriate, but you must be careful because if it is done in the wrong way, it will be counterproductive.

We have solid empirical evidence that religious freedom is linked to other social goods. It is the reality in the world: 32 percent of the countries have heavy-handed restrictions on religious freedom, and that covers 70% of the population of the world including China, Indonesia, India, and some other large nations. Unfortunately, the situation is getting worse; the high percentages are increasing. This is a problem.

Why do states do this? Jonathan Fox of Bar-Ilan University clarifies that non-indigenous minorities may be seen as cults. A history of conflict leads to perceptions of security threats. We've seen anti-Semitism. We could go on about which countries discriminate more than others. The findings are rather surprising. Muslim majority countries tend to discriminate, but European and Western Christian majority democracies have significant problems too. Orthodox Christian majority states are particularly prone to be discriminatory, and the same is true of Buddhist majority states. You wouldn't call communism a religion, yet it has similar impact. Why do states target minorities? Societal religious discrimination leads to government based discrimination. Particularly when there is existential threat they are tempted to over-regulate. Muslims may be perceived as a threat in Christian majority countries. For non-indigenous groups like Christian sects in communist, Buddhist, or Hindu settings, religious ideology may be an issue. Proselytism can be a problem too. These represent some of the temptations to violate freedom of religion or belief.

I will refer briefly to a new publication by the Organization for Security and Cooperation in Europe, which has spent five years carefully examining many situations where you have

the temptation to over-regulate freedom of religion. This work does a good job at identifying critical areas where there's a tendency to over-regulate, which results in reducing rather than increasing security. One of the interesting findings was that the rules governing registration of religious organizations are particularly prone to trigger and to be guilty of causing overreactions. We see similar problems with hate speech, profiling, proselytism, conversion, irregular actions or regulating the area of freedom of expression. It's a superb study looking many different countries and really trying to cover the balance well. I wanted you to be aware that this is out there.

We see the role institutions can play in making things better. It's critically important that we protect the rights of institutions. I'm impressed with the roster of Unification Church related entities we've seen in these sessions. Many of us are conscious of and protecting other institutions too. Civil religious and civil society institutions play a tremendous role. I would be glad to share developments in the G20, with institutions trying to bring religious voices to bear on security and other related questions. Religious communities see things in ways secular policymakers don't always see or understand. We can make a huge difference.

The Contributions of Religious Civil Society to the Rule of Law

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The Rule of Law has profound connections with the ideal and history of freedom of religion or belief, both in theory and in practice. At the level of theory, the ideal of the Rule of Law would not have emerged without background notions of higher law rooted in transcendent religions, and without a recognition of the need to recognize the reality of religious pluralism in modern society. Stated differently, freedom of religion or belief is one of the fundamental pillars of Rule of Law institutions. As a practical matter, religious civil society has played a profound role in generating rule of law institutions, from the impact of dissenting religious believers in shaping the fundamental right to freedom of religion or belief, to contemporary efforts of religious civil society institutions to press for rule of law institutions, including the rights of religious communities to acquire legal entity status, and more generally, to hold governments around the world accountable for maintaining the full range of Rule of Law institutions. On the practical side, the presentation will give examples drawn from programs focused on religion and the rule of law in China, Vietnam, Nigeria, and various other countries.

Since the beginning of the nineties, the number and intensity of armed conflicts had declined. This was in large measure achieved through peaceful settlement of conflicts accompanied by peace support at the local, national, regional, and international levels. The United Nations had played a critical role in supporting this positive trend through its Peace Operations and through the work of its wider political human rights and development pillars.

Despite this overall spread of peace, the last decade witnessed a rise in violent conflicts.¹ They are also becoming more complex and protracted, involving more non-state groups, regional, and international actors. They are more intractable and less conducive to a political resolution.² More importantly, they are becoming threats to global peace and security. Insecurity (Political and Criminal Violence, Civil Unrest) has become a primary development challenge of our time.³

This is requiring more concerted efforts and effective synergy by the international community to prevent and minimize the dangers associated with conflict and violence and their devastating consequences on our society, eroding all chances of peace, justice, and development.

The World Bank and United Nations report *Pathways for Peace: Inclusive Approaches to Preventing Violent Conflict* projects that more than half of the people living in poverty will be found in countries effected by high levels of violence by 2030.⁴

Today, millions of families find themselves trapped in situations of war and violent conflict that disrupt the fabric of their societies and compromise the very foundation of their institutions. As revealed by a new Save the Children report, more children than ever before, at least 420 million children are living in conflict zones. Twenty-nine million children or 1 in 5 were born into conflict in 2018.⁵

The impact of violent conflict on families and communities is tremendous and should not be tolerated. In addition to indiscriminate killings and maiming, appalling abuses are perpetrated against them, their children are trafficked and enrolled as child soldiers, and combatants.

Women and girls also face the atrocities of sexual violence and exploitation which include rape, sexual slavery, forced marriage, and trafficking.⁶ Sexual exploitation is still used as a tactic of war and terrorism, destroying families and communities attacking their dignity and humanity.⁷

When their homes and communities are no more safe havens, and when their streets become battlefields and their schools used for military purposes, families flee for their lives in search of safety in the neighboring countries or thousands of miles away from their homeland.

This is a time of unprecedented displacement of more than 70 million people, primarily women and children.⁸ An estimated 50 million children have migrated across borders or have been forcibly displaced, and 28 million children have been uprooted by horrific violence.⁹ The danger they encounter during their harrowing journey includes exploitation and violence, abduction and detention, xenophobia and discrimination.¹⁰

The plight of families and children whose lives have been shattered by violent conflict continues to haunt us... Images of families and children fleeing their homes, communities, and villages continue to haunt us... Their perilous journeys continue to haunt us... But what should haunt us more is the full extent of people's pain and loss...as well as their resilience and moral courage, which is not captured and is under-reported or recorded. Rarely are the families asked how the conflicts has affected them and violence affected them, or what would make their lives better, and how could we change the tide of violence... towards a path to peace... reconciliation and dialogue.

It is in this context of devastation and complexity that the United Nations continues its journey to further advance the ideals of,

“We the People of the United Nations, determined to save succeeding generations from the scourge of war and to reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women, and nations large and small...” further they say, *“and to unite our strengths and to maintain international peace and security.”*¹¹

Nevertheless, the United Nations continues its journey, to further advance its ideals and fulfill its goals, in a new era of building a world of peace. In an era where people are at the centre of peace and development efforts...In an era of dialogue and reconciliation...In an era of protection of civilians...in an era of sustaining peace... Most importantly, in an era of inclusion and partnership with all members of society, including women, youth, and children in the service of peace. Who also express themselves saying that they want to be heard, not only as victims of violence, conflicts, and displacement but as agents of change and drivers of peace.

In laying the foundation of an environment conducive to peace and sustaining peace, the Un General Assembly adopted in 1997 the ground-breaking resolution 52/15 proclaiming the year 2000 as the International Year for the Culture of Peace¹². In its resolution 53/25 adopted on the 10th of November 1998, it proclaimed the period 2001-2010 as the international decade for a Culture of Peace and non-violence for the children of the world.¹³ On the 13th of December 1999, the General Assembly adopted a Declaration and programme of action on the Culture of Peace.¹⁴ Subsequent resolution adopted every year have reaffirmed the

commitment of the United Nations to build and promote the Culture of Peace. On the occasion of the observance of the 20th anniversary of the Culture of Peace and the United Nations high-level forum held on the 13th of September 2019, the General Assembly

adopted on the 12th of December the annual resolution A/74/21, titled “Follow-up to the Declaration and Programme of Action on a Culture of Peace” that further reconfirmed the commitment of the United Nations to the follow up of the Declaration and programme of action on a Culture of Peace.¹⁵

The vision of the Culture of Peace was furthered captured by the 2030 Agenda for Sustainable Development, and the “Sustaining Peace Resolution.” In the historic and memorable meeting of the General Assembly on the 25th of September 2015, all member states adopted the transformative 2030 Agenda. The Agenda, which is universal, integrated and indivisible in nature recognized for the first time the direct link between peace, justice, and development. Its seventeen goals range from ending poverty in all its forms everywhere to ensuring inclusive and equitable quality education to reducing inequalities within and among countries, to achieving gender equality, to taking action to combat climate change, and also to promoting peaceful and inclusive societies as articulated in goal 16.¹⁶ The Agenda calls for:

“Peaceful, just and inclusive societies that provide equal access to justice and that are based on respect for human rights (including the right to development) on effective rule of law and good governance at all levels, and on transparent, effective and accountable institutions.”¹⁷

In signing on the 2030 transformative Agenda, the world leaders expressed their determination to foster peaceful, just and inclusive

societies that are free from fear and violence, and for “not leaving anyone behind.”¹⁸

The ground-breaking Sustaining Peace Resolutions: further confirmed the indivisible agendas of sustaining Peace and Sustainable development. They also emphasized the importance of a comprehensive approach to sustaining peace, particularly through the prevention of conflict and addressing its root causes. They also promote sustained and sustainable economic growth, poverty eradication, social development, national reconciliation, and unity, including through inclusive dialogue and mediation. Most importantly the resolution confirms the vital role of women, youth, families, and communities in preventing conflict in peacemaking, peacebuilding and sustaining peace.¹⁹

The importance of the participation of all stakeholders in the service of peace was affirmed in the Plan of Action to Prevent Violent Extremism, it calls on for the engagement of

communities and families, including women, girls, and young people to prevent violent extremism.²⁰

Twenty years ago, on the 31st of October, the Security Council adopted the resolution 1325. The Landmark resolution affirmed the role of women in the prevention and resolution of conflicts, peace negotiations, peacebuilding and peacekeeping. It urged all actors to increase the participation of women and incorporate gender perspectives in all United Nations Peace and Security efforts.²¹

The resolution on “Youth Peace and Security” (2250) reinforces the power of young women and men in shaping peace and security in the world. It urges the international community and government to support the youth efforts and integrate them in decision making at all levels, carrying out intergenerational dialogue. It further highlights the important role of education, skill development, and employment facilities in the struggle against poverty, social and political marginalization and exclusion that are driving factors for war and extremism.²²

To crystalize this new vision and action for preventing conflict, building and sustaining peace, the United Nations Secretary-General Antonio Guterres introduced a set of mutually reinforcing reforms to ensure that the UN is more fit for purpose including the realm of Peace and Security and that all its agencies should work effectively together to achieve the development and Peace Agenda.²³

In his January 2018 report on “Peace-building and Sustaining Peace,” he said:

“The scale and nature of the challenges of sustaining Peace calls for closer strategic and operational partnerships among the United Nations, national government and other key stakeholders, including international, regional, and sub regional organizations, international financial institutions, civil society organizations, women’s groups, youth organizations, and the private sector.”²⁴

Hence, it has become important to shape innovative, transformative, and participatory approaches to address both Policies and global action to prevent conflicts reduce violence, build and sustain peace.

In the last two years, the UN, its agencies, the World Group and other research and policy organizations including Pathfinders for Peaceful, Just and Inclusive Societies, presented to the world an integrated approach towards peace that calls on all institutions to work together in the path of preventing violent conflict. This call does not only emphasize that peacebuilding strategy should include the policy, regional, national and local level, but also to ensure local participation and ownership of peacebuilding design and practice.²⁵

A growing body of evidence shows that participation of communities, women, youth and children in all aspects of peacemaking, peace building and sustaining peace has a tangible impact on human security, and on peace and security in general. They play an important role in sustaining peace by anchoring peace dividends in their communities. For example, women are vocal advocates for preventing conflict before it breaks. We know that in numerous countries women are at the forefront of campaigns to diffuse tension between different groups. Women frequently bridge political, economic and social divides, as they are able to build a broad coalition for peace, they also take part in national and local reconciliation.

There is also, now, an emerging network of young women for peace and leadership that supports and empowers young women and girls in conflict affected countries to fulfill the role in peacebuilding and counter violent extremism.²⁶

The new and well-established body of scientific evidence from multiple disciplines (neuroscience, psychology, economics) that continues to substantiate the link between the early years of life and early life environment with long term well-being, violence prevention and behaviors linked with more peaceful communities.^{27, 28, 29} The formative years of life and intra and inter family and community relationships are powerful agents of change that can promote resilience social cohesion and peace.³⁰

As such investing in the positive development of Young Children is a path to creating a culture of Peace and sustain Peace at home in the community and society.

Unfortunately, until now, the Peacebuilding discourse and practice has failed to be inclusive and acknowledge the participation of every member of society in building and sustaining peace, for this reason, all the efforts to implement approaches to prevent violence, maximize justice, equality, and harmony yielded mixed results.

But now, it is the time to elevate the role of people to the Global Peace Agenda... It is time to demonstrate by scientific evidence and practice the transformative power of participatory and integrated approaches to building peaceful, just, and inclusive societies.

In this regard, we need the commitment of the International Community to translate promises, resolutions, and plans of action into reality for a more just, peaceful, and secure world.

We need responsive, compassionate, and accountable World and National leaders, as His Majesty King Abdullah of Jordan in addressing the European Parliament in Strasbourg, and in stressing the importance of leadership said, that leaders have a responsibility to safeguard their people's long-term interests and welfare.³¹

We need to place the interest of People in the heart of our development and peacebuilding and sustaining peace efforts. This means we have to reach everyone. We must empower

women and girls, men and boys, and help them rebuild their lives, fulfill their human rights, and restore their dignity.

We need international and national actors to rethink strategies and programmes, and to make them people-centered, where local communities can play an important role in decision making. We must build on what people know and give them space to be the driving force for change. By doing so, the joint international, national, and local effort can promote self-reliance, local ownership and peace dividend.³²

We need all responsible actors to build programmes, that are long term and inclusive. They should also go beyond physical security and geared towards human security, peace, and justice. They should include access to social services, such as health care, education, and economic empowerment. Most importantly, they should include reconciliation and mediation mechanisms, creating vital spaces for people to voice their grievances and manage conflict through non-violent means.

The task ahead to build and sustain peace is formidable, but there is room for optimism as each one of us is responsible. “It is our shared responsibility,” as the former UN Secretary-General Ban Ki-moon used to say. There is no better time than now to unite our strengths to change the tide of violence and build a peaceful world for all of us and the generations to come.

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Comment of A Vision for World Peace: Regional Perspectives in the Europe-Africa Region

Dr. Choi Choon-heum

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In general, this paper argues author's main theme very concisely and correctly. Especially this paper argues that in order to have peace, stability and security between Europe and Africa in the near future, a new geopolitical concept of "verticality" should be applied.

My questions are following:

1. Could you reiterate the concept of "verticality" in details?
2. This paper argues that the concepts of peace, stability and security are the core components to build bridges among Africa, Mediterranean, and Europe. I agree. But I still cannot understand fully because I am not able to differentiate the variables among peace, stability and security. To me these variables are correlated. If we talk about and evaluate a nation's healthy development, we may use such variables as peace (security, national military security), prosperity (economic development) and participation (level of democracy). Could you explain afore-mentioned variables clearly? Few days ago UK, United Kingdom withdrew from European Union. What kinds of impacts will be on economic integration and geopolitical implication to the Africa-Europe Regional cooperation in the near future?
3. To what extent has and will have the U.S. president Trump's America-first policy influence on Africa-Europe cooperation?
4. The last question will be on China. What has China done for the economic development in Africa?

Thank you.

Comment on Teranga and Pleasant Parent Kinship as strategies to ensure peaceful coexistence on Senegalese society

Dr. Choi Choon-heum

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1. Generally, this paper, while introducing current state of Senegalese political-cultural aspects, argues for Senegal's "teranga and pleasant parent kinship" may be needed in order to sustain coexistence in her society. I agree with you. Any societies or nations, if they want to have sustainable coexistence and development, they may have to maintain good aspects of traditional political culture since most member of its society are easy to accept and share the characteristics of the traditional values.
2. This paper also defines afore-mentioned two important concepts, "teranga and pleasant parent kinship" very well. In addition, this paper illustrates many examples to back up author's argument. As a result, this paper highly emphasizes the significances of embracement of different religions and of interpersonal relationship for Senegalese societal coexistence.
3. In order to coexist in a society with different religious background, we have to have shared common national political and economic interests. In other words, without sharing political and economic interests, it will be very difficult to sustain and develop societies. In line with this argument, my questions are the followings: first, what is political and economic situations and sharing level of those national interests? Second, what are the Senegalese national agendas in terms of political, economic, and cultural areas in the near future?

Thank you.



2020 World Peace Academic Conference

Section 3

**The God Conference and God as
the Parent of Humankind**

Reverend Moon's¹ Influence on Religion in the 20th and 21st Centuries

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Abstract

Reverend Sun Myung Moon is a religious figure primarily, who simultaneously attained mastery in numerous fields of enterprise.² His work purely in the field of religion included, 1. a personal path of religious practice and devotion, 2. refinement of a unique, complete religious teaching, 3. the formation, growth, education, and establishment of an international community of believers, and 4. the establishment of related religious organizations and institutions (tied to his person, his couple, and his teachings), 5. massive investment in religious and interfaith scholarship, and 6. unreserved interfaith activism. This paper touches superficially on some significant elements of this work with hope to spark interest, and trigger deeper research into these areas by readers and scholars.

¹ **On usage**

This paper uses the terms Reverend Moon, Reverend Sun Myung Moon, and Sun Myung Moon when referring to him and his work. Use of these terms presumes shared purpose, and perhaps shared burdens from wife, Han, Hak Ja. Since Reverend Moon's passing in 2012, Unification believers refer to 1. the work of Sun Myung Moon, 2. the work of Reverend and Mrs. Moon together, and 3. the work of Han, Hak Ja all as "the work of True Parents," without distinction.

For example, before 2012 a Unification believer might write: "Reverend Moon spoke at the Assembly of the World's Religions." After 2012 Unification believers write "True Parents spoke at the Assembly of the World's Religions."

This paper uses pre-2012 conventions and usage trusting concerned readers will find all requisite respect and honor for the shared sacrifice, concern, investment, and dedication of Han, Hak Ja in the work described.

² "Q [Newsweek]. You are a millionaire businessman, you live in a \$625,000 house, you have yachts at your disposal and so on. Why do you have this financial empire?

A. [Reverend Moon] God has been very good to me. But I am not a millionaire businessman. I am a religious leader,"

Interview, *Newsweek International*, June 14, 1976

Religious Roots

Reverend Moon, as stated in the abstract was a religious leader, despite his great many remarkable achievements in many challenging fields such as media, science, commerce, and much else. Independently of this fact, Reverend Moon exerted an outsized impact on religion in our time.

These two considerations are not bound by necessity. It is possible that people not remotely interested in religion can have a major impact on religion, think of Stalin, or the founder of MTV, for example. Conversely, there are plenty of people whose primary identity as religious leaders sadly has no impact on religion. Imagine a lazy pastor appointed by her denomination to a large congregation who spends years having little or no religious impact on anyone.

This inquiry examines the coincidence that 1. Reverend Moon is a religious leader, and 2. Reverend Moon had a major impact on religion in our time.

A proper inquiry on issue one: Reverend Moon is a religious leader primarily (despite remarkable achievements in many non-religious work and professions), requires interest in Reverend Moon's own religious life. What are the origins of his faith? What does he believe? What does he teach?

The external answer the questions above is widely known. Reverend Moon speaks of his early religious experiences in his autobiography, *As a Peace Loving Citizen*. One famous part of his testimony is familiar to many:

It was the night before Easter in the year I turned sixteen. I was on Mount Myodu praying all night and begging God in tears for answers. Why had He created a world so filled with sorrow and despair? Why was the all-knowing and all-powerful God leaving the world in such pain? What should I do for my tragic homeland? I wept in tears as I asked these questions repeatedly.

Early Easter morning, after I had spent the entire night in prayer, Jesus appeared before me. He appeared in an instant, like a gust of wind, and said to me, "God is in great sorrow because of the pain of humankind. You must take on a special mission on earth having to do with Heaven's work."³

Here Reverend Moon describes his own concerns, his behavior that arose from these concerns, and finally an encounter with the risen Lord Jesus. His claim to have been visited by the risen Lord Jesus is not at all unusual. The *magnitude* of his "calling" from Jesus is likely outside the norm for normal believers. But the basic building blocks of the narrative are quite common. Many describe similar experiences at the root of their lives of faith: Praying intensely in existential anguish for answers, and as a result being met in response with a personal visitation from the risen Lord Jesus. This is not unusual.

³ *As a Peace Loving Citizen*, p 59 <https://www.tparents.org/Moon-Books/PLGC-SunMyungMoon-091101.pdf>

This passionate quest, and this personal spiritual experience of Reverend Moon, put this teen lad on a nine year quest, the life course and spiritual activities of which also are widely known, especially to people with strong personal interest in Reverend Moon's life.

A few pages later in his autobiography, he then writes of yet another powerful spiritual experience that came after having lived through nine intense years of prayer, study, and spiritual quest and devotion. On page 76 of his autobiography he writes:

Nine years after my encounter with Jesus, my eyes had finally been opened to the true love of God.⁴

These types of personal accounts are helpful as windows into the nature of Reverend Moon's personal spirituality. These are the bases that eventually resulted in him rendering complete and systematic teachings, and through these teachings founding and maintaining a community of believers in the Unification family.

Elements worthy of note when seeking to grasp the essential nature of Reverend Moon's spirituality and basis as a religious teacher and leader are these:

- 1 As a boy Reverend Moon brought a particular, personal obsession to his spiritual quest, namely an overwhelming and unquenchable despair and pain over the fact of human suffering.
2. His upbringing was such that prayer in a Christain style was the vehicle through which he sought to resolve this passion.
3. He traces his calling as having received communication from God through the risen Lord Jesus of Nazareth,
4. This "divine intervention" into his life (mediated through Lord Jesus), in turn returned him to personal investment and labors (9 years of passionate, spiritual (and practical) research)
5. The combination of his call (request from God through Jesus) *and* his response and exercise of his own devotion and dedication, brought him to the point where he was able to systematize and organize teachings about which he was sure was the truth affirmed by God (Beginning on May 11, 1954, Reverend Moon, wrote the *Wolli wonbon*, the original text of the *Divine Principle*.⁵), and to the point where he was confident in his personal spiritual authority, also confirmed by God.⁶

From this we can see that Reverend Moon as a religious person lives in a cyclical pattern. His own nature attracted God, God's call drew out his response. His response further attracted God. This cycle continues with ever greater intensity and intimacy. This revolving

⁴ *As a Peace Loving Citizen* p. 78 <https://www.tparents.org/Moon-Books/PLGC-SunMyungMoon-091101.pdf>

⁵ *Chambumo Gyeong*, p. 2 <https://www.tparents.org/Moon-Books/ChambumoGyeong/ChambumoGyeong-03.pdf>, p.

⁶ On July 20, 1953, he sent Gang Hyeon-sil to Daegu as the first missionary. This was the first time *the Divine Principle* was taught publicly. <https://www.tparents.org/Moon-Books/ChambumoGyeong/ChambumoGyeong-03.pdf>

circle can be seen metaphorically like a mainspring, informing the essence and animating the expansion of Unification life in those whom God awakens.

Religious Elements of the Unification Mission

How then has a person with this sort of religious identity, history, and make-up influenced religion in our time? This has happened in at least four ways. A brief look at these four areas is the subject matter of this introductory paper. The ways are these:

1. The creation of **a complete theology** accounting for all of reality
2. The founding, supporting and growing of **a religious community**
 - a. 10s or 100s of thousands of people who follow a sacrificial, religious and spiritual regimen in penance, self examination, and daily striving aimed at personal improvement, marital fidelity, virtuous child-rearing, and wholesome and responsible relationship with earth's environment and resources
 - b. Believers serve peace and humanitarian causes locally and internationally
3. Creation of Multi-Religious Theological Institutions
4. Creation of **activist interfaith organizations** dedicated to solve the persistent and intransigent evil of religious conflict and discord

I. Emergence, Education, Organization, and Care of the Unification Faith Community

This work by Reverend Moon includes,

1. Penning and refining the *Divine Principle* as the guiding scripture for his community,
2. Designing the sacrament of "Blessing" as the means by which God enters into eternal participation, and commits to intimacy and protective care over families moved to receive this Blessing.
3. Creating and implementing an ecclesiology and management of the international Unification community based on applying *Divine Principle* tenets.
4. Creating education and participation programs and institutions to help Unification families maintain and grow their spiritual lives, and their marriages and families.
5. Founding and growing missions and local Unification worshipping and serving communities

Inquiry into the impact of Unification "Blessed Families" on society, culture, politics, and earth's environment is a scholarly work yet to be taken up in earnest. As these families grow, and as their children grow and raise families of their own applying Unification culture and traditions, their impact on schools, universities, media, and communities in which they settle will increasingly become the subject of academic inquiry.

Additionally, the impact of the theological system also represents a fertile arena for analysis and investigation. In 1981, preeminent, religion scholars already identified *Divine Principle* and Unification teachings as an important object of theological inquiry.

In the introduction to *Ten Theologians Respond to the Unification Church*, Herb Richardson wrote:

The purpose of the Unification Church [is] to unify Christianity as a basis and example for establishing unity among the religions of the world. The image of this unity, we propose, is that of one family of religions. Within this family, the differences among religions are not destroyed. Rather, within this family, religions learn to respect and cooperate with one another in a natural way.⁷

The significance of establishing an active and growing religious community in every nation on earth, based on teachings that are multi-religious doctrinally is new in history, and will continue to impact world affairs, and attract serious scholarly investigation.

II. Creation of Multi-Religious Theological Institutions

The first and most important point to note in this section on Multi-Religious Theological Institutions is that these are not work the community does because it is a good idea. It happens because it is the inevitable, natural expression of doing what a Unificationist does. It is nothing more than living according to the teachings of the *Divine Principle*. (This same fact also holds true for the next section on activist, interfaith organizations.)

Reverend Moon entered the United States December 18, 1971.⁸ Much of what is attributed to Reverend Moon's ecumenical and interfaith investment (delineated below) cites work from that year forward. But this habit of chronologists is misleading, and can tend to yield an inaccurate grasp of Unification, interreligious efforts.

Though the historical record prior to 1971 is less accessible, it remains the case that ecumenism and interfaith were commitments, actively pursued by Reverend Moon from the earliest moments of his ministry. The *Divine Principle* and the teachings of Reverend Moon are ecumenical and interfaith in their dna and identity.⁹ As such, if a Unification community comes to exist at all, then given the *Principle*, it must by its very nature found itself as a multifaith (ecumenical) organization, and not a sectarian or denominational body. This is why the institution founded by Reverend Moon through which he carried out the central most elements of this life's work was an ecumenical organization, The Holy Spirit Association for

⁷ *Ten Theologians Respond to the Unification Church*, edited by Herbert Richardson, Rose of Sharon Press, New York, NY, 1981

⁸ *Way of the World*, January, 1972

⁹ *Exposition of the Divine Principle*, "The Unification of Religions through Returning Resurrection" pp. 150-151

the Unification of World Christianity.¹⁰ He later expanded this natural, multi-religious expression of his faith beyond seeking mere Christian unity, to become the Family Federation for World Peace,¹¹ making his core work a mission dedicated now to unity among all religions on earth, and even to include non-believers.

The earliest efforts of this fledgling group of volunteers that were organized as the Holy Spirit Association for the Unification of World Christianity was the serious and substantial investment in interfaith and ecumenical work that began already as early as 1965.¹²

This work, begun in post-war Korea, continued identically as Reverend Moon expanded his mission internationally.

Reverend and Mrs. Moon came to the United States with their family in 1971. By 1974, just a short time later, Reverend Moon acquired St. Joseph's Normal Institute, a novitiate and high school in Barrytown, New York, run by the Christian Brothers, a Roman Catholic lay order. In less than two years from the time of this purchase, Reverend Moon dedicated this property to founding the Unification Theological Seminary (UTS), hiring faculty with a makeup unprecedented in the history of theological, higher education. Founding this school became the springboard of world ecumenical theology and activity that fundamentally changed the landscape of religious scholarship in our time.

Organizations and events arose steadily and abundantly from the fertile soil of UTS's first faculty. The founding faculty included professors from Methodist, Reformed, Roman Catholic, Greek Orthodox and Jewish faiths. Within two years of its founding, ecumenical conferences were being hosted on campus that attracted scholars and religious leaders from a broad range of denominational backgrounds.¹³

The roster of distinguished scholars who visited UTS in the late 1970s and early 1980s for programs included: Harvey Cox of Harvard University, Lonnie Kleiver of Southern Methodist University, Jewish theologian Richard Rubenstein, Martin Rumscheidt, President of the Karl Barth Society, Father John Meehen, President of Maryknoll Seminary, religious educator James Michael Lee, biblical scholar Simon De Vries of the Methodist Theological School, psychologist Albert Ellis, folklorist Morton Smith from Columbia University, Augustine scholar Ernest Fortin from Boston College, Theodor Gaster from Barnard College, church historian Robert Handy from Union Theological Seminary, National Review editor William Rusher, Buddhist scholar David Kalupahana from the University of Hawaii, Islamic scholar

¹⁰ May 1, 1954, <http://familyfed.org/news-story/twih/63-years-since-founding-hsa-uwc-36764/>

¹¹ January 5, 1994

¹² A ceremony marking the foundation of the Inter-Denominational Christian Association was held on November 7, 1966, at A-seo-won, in Jung district of Seoul. This was the result of the Christianity-based interdenominational activities that had been held since 1965. <https://history.familyfed.org/november-1/#estIDCA>

¹³ <https://www.uts.edu/about-uts/history>

and martyr Isma'il al-Faruqi from Temple University, the Hassidic singing rabbi Schlomo Carlebach, and many more.

Building on these early conferences, interfaith initiatives were organized at UTS, including the Global Congress of the World's Religions (1977) and the Youth Seminar on the World's Religions (1982). The most important of these was the New Ecumenical Research Association (New ERA), begun in 1979 and guided by then UTS librarian John Maniatis. New ERA developed as an interfaith community of theologians, guided by an interfaith board. Its conferences brought together hundreds of religious scholars for wide-ranging discussions and to study Unification theology.¹⁴

New ERA scholars created dozens of volumes of serious theological inquiry. Perhaps most notable is what came to be dubbed "The God Series" (formally, *The Series on God the Contemporary Discussion*), producing 10 pathbreaking volumes, with contributions by tens of world-established thinkers and writers, between 1982 - 1989.¹⁵

The record of this remarkable torrent of strong scholarship is known. What often is missed however, is the context in which the "God Conferences," and the "God Series" transpired. This work began during the declining and decaying theological and intellectual environment stemming from fascination with, and the ascendancy of the "Death of God," a theological movement and weave of trends that had overtaken the Western theological academy, and by extension Western Culture.¹⁶

The best known of these proponents was Thomas J. J. Altizer, then a professor of religion at Emory University in Atlanta. The controversy reflected many of the broader cultural and political changes in American society often associated with that decade. "We must realize that the death of God is an historical event, that God has died in our cosmos, in our history, in our [existence]," Altizer claimed. His frequently provocative manner of speaking, which masked a more complex discussion taking place among academic theologians,¹⁷

The depth and power of this disruptive and degenerative challenge to constructive, faith-supporting theological efforts, lay not just in its catchy insinuation of Neitzche, but far more powerfully in its powerful challenge to the possibility of referential language. That Reverend Moon could mount an effective challenge to this dark, intellectual direction is one of the little known wonders of his life's contribution.

¹⁴ <https://www.uts.edu/about-uts/history>

¹⁵ https://www.irfwp.org/library/full_list.shtml

¹⁶ <https://www.georgiaencyclopedia.org/articles/arts-culture/god-dead-controversy>

¹⁷ "God Is Dead" Controversy

Original entry by Patrick Gray, Rhodes College, Memphis, Tennessee, 04/01/2003

Last edited by NGE Staff on 08/06/2013 (New Georgia Encyclopedia)

<https://www.georgiaencyclopedia.org/articles/arts-culture/god-dead-controversy>

This unknown and obviously not acknowledged impact on intellectual life and the humanities (especially in the Western academy) closely matches his very famous labors that challenged materialist and militant atheist philosophies. A story well known in many accounts, including the inspiring Kaplan testimony about the 1985 conference on the Fall of the Soviet Union.¹⁸

In 2002, Hernan Lopez-Garay, wrote an incisive essay entitled, *Rescuing Intellectuals from Extinction*. In it he wrote:

Intellectuals -- a cultural invention of the West -- are not anymore characters in good standing. Their influence in determining society's course has declined; politicians and businessmen have become the dominant characters....

In light of this historical context, Reverend Moon's determination to rescue intellectuals from oblivion and prevent their further extinction is puzzling. Very few people in this post-modern world would be willing to rescue intellectuals from their political decline and give their activities not only strong spiritual and economic support but also the real opportunity of playing a transcendental role in their communities and the world stage. Yet this is what I have seen [Reverend Moon] doing... Why does he take the time and effort?¹⁹

Testimonies as eloquent and incisive as this abound. Sadly, they are not widely known, even among Unification members.

Who when hearing the name Reverend Moon immediately and naturally associates the name with the renewal of Western and global intellectual life?

The range and scope of Reverend Moon's impact on the theological academy in its own right thanks to his unconditional support for religion scholars, and for God-affirming, religious-harmony-driven theological environments and work product is not widely known. But eventually this fact naturally will become a major point of inquiry among scholars serious to understand influences on Christian and world-religious theology in our era.

III. Creating Activist, Interfaith Organizations

The third and final area in which I continue this light touch on Reverend Moon's impact on religion in our time, introduces the historically unprecedented torrent of investment into interfaith reconciliation, harmony, and cooperation.

As mentioned above, the first and most important matter to note vis a vis Reverend Moon's extreme investment in interfaith, is that this was not an "also" in his work for good. It was not

¹⁸ http://reverendsunmyungmoon.org/testimony_Morton_Kaplan.html

¹⁹ *The Hope of all ages, a Unified World of Peace*, Interreligious and International Foundation for World Peace, Tarrytown, NY, 2002

a tactical or strategic recognition or calculation as a requisite for realizing his goal of peace. As mentioned earlier, interfaith is intrinsic to Unification teachings and theology. Reverend Moon's immeasurable work in the area of interfaith is theological, it is natural, normal. Not doing it would be akin to a firefighter refusing to be present in areas of high temperature. Work to harmonize religions is the second restorative work of God. Reverend Moon did *not* "support interfaith activity," or "found interfaith organizations." He carried out the Will of God.

The second half of the *Divine Principle* is a 148 page section dedicated to principles of restoration. These are the inexorable and inviolable rules by which things are repaired, reestablished, and brought fully back into a renewed and originally functioning condition and order. These rules and guidelines, according to Reverend Moon and Unification belief are God's own rules, arising out of love, and instituted the moment God's original plans for creation were foiled by the misuse of free will (that was requisite for the fullness of love).

Part of these principles needed to repair broken things, includes an ongoing process called "returning resurrection."²⁰ The *Divine Principle* section explaining this process. The account of "returning resurrection" explains the key dynamics and energies that contribute to religious violence and conflict, and further explains the means by which these tragic realities can be dissolved and replaced by loving harmony in the world family of religions. Reverend Moon's interfaith work combines two restoration processes delineated in the *Divine Principle*,

1. The two-part "foundation to receive the Messiah," ("foundation of faith," and "foundation of substance")²¹
2. The process of "returning resurrection."

According to the *Divine Principle* and all Unification teachings, implementing these restoration principles is "the Will of God." It is something Reverend Moon faithfully sought to carry out. For him, like breathing. This obedience to "the Will of God" on this particular matter of investing in interfaith harmony began instantly as Reverend Moon started his mission. Furthermore, it continued carefully, systematically, and without interruption throughout all the days of his life until he breathed his last.

Interfaith work began with the penning of *Wolli Wonbon* (within months of his release from Heungnam Prison), in which Reverend Moon explains exactly how interfaith is rooted in the Divine Will.²² Within two years of beginning this ministry as a war refugee, Reverend Moon, based on these teachings, founded a Christian Ecumenical organization as the main institution through which he would carry out his mission, *The Holy Spirit Association for the Unification of World Christianity (HSA-UWC)*.²³

²⁰ Exposition of the Divine Principle, pp 130 - 133

²¹ Exposition of the Divine Principle, pp 150 - 153

²² <https://history.familyfed.org/chronology/#1950s>

²³ May 1, 1954 <https://history.familyfed.org/chronology/#1950s>

From these earliest moments close to seventy years ago, Reverend Moon maintained a level of passionate dedication, investment, and personal involvement in the mission of interfaith reconciliation, harmony, and cooperation that was unrivaled in his time, and unprecedented in history.

Mrs. Moon explained in her 2002 speech “A Model of Absolute Faith,”

My husband and I have founded numerous organizations ... to bring about dialogue and harmony among different religions during the past 40 years, we have invested more than ten times the budget of our own Unification Church. We support this interdenominational and interreligious movement because we know it is the Will of God.²⁴

This investment of this magnitude has produced events, organizations, publications, outcomes, and global influence close to encyclopedic in scope. To enumerate them even merely by name fills 10s of pages (unfortunately beyond the scope of this brief paper).

While it is important to note the volume of these results, and perhaps more importantly the tangible record of known outcomes and positive influence for peace over world affairs through this work, it is the interest of this writer however, to argue that the single most important thing to note about Reverend Moon’s lifelong support for interfaith is not the volume of activity or achievements, but rather that it is required by the premises of his theology. Reverend Moon’s interfaith commitment and activity is guided by the principles delineated in his teachings, and is pursued and expanded systematically according to the dictates and norms inherent in his theology.

The reason Reverend Moon’s interfaith work reached such immense levels of influence and far ranging engagement of the world’s most powerful leaders and thinkers was not because he spent a lot, and it was not because an ever growing number of people became drawn to Reverend Moon’s (or “True Parents’s”) charisma.

The growth and influence of Reverend Moon’s interfaith efforts, and the fond love found among his fellow travelers in this work is because the work flowed from his teaching and life that insisted that God as the founder and main agent of this interfaith work. Additionally, together with this bond and rootedness in God, the work reliably implements rigorous application of clear, easily accessible teachings and principles. This made Reverend Moon’s interfaith work not one that “he led,” but rather a work that people and leaders of all religions *shared*. It’s bond to God and to a transparent and openly available teaching, allowed people of all religions and of good will to join ranks and work toward these shared desires and values with energy, and without compromise.

²⁴ “A Model of Absolute Faith,” given at the 2002 World Culture and Sports Festival and General Assembly of the Interreligious and International Federation for World Peace, February 15, 2002, Seoul.

Conclusion and Summary

In this brief introductory account, I offered thoughts on four areas through which Reverend Moon influenced the world of religion in our time.

1. His teaching (and embodying his teaching)
2. The establishment of a faith community built on this teaching
3. His investment in the theological and religious academy
4. His investment in interfaith activism, and improved relations among religions and believers

The work of this paper is cursory and introductory, but sufficient to argue the primary points I wish to offer. I argue that in order to understand Reverend Moon and his impact on religion it is important to investigate humbly and rigorously

1. What he is like as a religious person
2. The ways in which his work faithfully manifests his religious teaching, understanding, and commitments

Reverend Moon's Influence on Religion in the 20th and 21st Centuries

Dr. Frank Kaufmann

President, Professors World Peace Academy, USA

Reverend Moon's Influence on Religion in the 20th and 21st Centuries

FRANK KAUFMANN

Elements of Reverend Moon's Spirituality

1. Overwhelming and unquenchable despair and pain over the fact of **human suffering**.
2. Prayer in a **Christian** style to resolve this passion.
3. **Communication from God** mediated through Jesus Christ,
4. Responds with **personal investment** and labors (9 years of passionate, spiritual (and practical) research)
5. Religious Life is a **Circle**
6. He was able to systematize and organize **teachings** about which he was sure was the truth confirmed by God, and to the point where he was confident in his personal **spiritual authority**, also confirmed by God
7. Leads a **world movement** including religious harmony

Religious Elements of the Unification Mission

1. A **complete theology** accounting for all of reality
2. A growing **religious community**
3. Creation of **Multi-Religious Theological Institutions**
4. Creation of **activist interfaith organizations** dedicated to solve the persistent and intransigent evil of religious conflict and discord

Religion and the Unification Faith Community

1. Penning and refining **the *Divine Principle*** as the guiding scripture for his community,
2. Designing the **sacrament of "Blessing"** as the means by which God enters into eternal participation, and commits to intimacy and protective care over the love and lineage of families moved to receive this Blessing.
3. Creating and implementing **an ecclesiology** and management of the international Unification community based on applying *Divine Principle* tenets.
4. Creating **education and participation programs** and institutions to help Unification families maintain and grow their spiritual lives, and their marriages and families.
5. Founding and growing **missions and local Unification** worshipping and serving **communities**

Impact of Unification Families Will Be Studied

As these families grow, and as their children grow and raise families of their own applying **Unification culture and traditions**, their **impact** on society, culture, schools, universities, and media, in the communities in which they settle will increasingly become the subject of academic inquiry.

Impact of Unification Families Will Be Studied

Establishing an active and growing religious community in every nation on earth, **based on teachings that are multi-religious doctrinally** is new in history. It will continue to impact world affairs, and attract serious, scholarly investigation

Multi-Religious Theological Institutions

The *Divine Principle* and the teachings of Reverend Moon are **ecumenical and interfaith** in their DNA and identity.

The *Principle*, it must **by its very nature** found itself as a **multifaith (ecumenical)** organization, and not a sectarian or denominational body.

Multi-Religious Theological Institutions

1. Unification Theological Seminary (UTS)
2. Christian Ecumenical Conferences
3. New Ecumenical Research Association (New ERA)
4. Conferences on God the Contemporary Discussion
5. The “God Series”

Multi-Religious Theological Institutions

God the Contemporary Discussion

The “God Series” (10 Seminal Volumes, 1982 – 1989)

Challenges and reverses the degenerative force of “Death of God” corruption of theological faculties, and degradation of Western Culture.

Rescuing Intellectuals from Extinction

by
Hernan Lopez-Garay

Very few people in this post-modern world would be willing to rescue intellectuals from their political decline and give their activities not only strong spiritual and economic support but also the real opportunity of playing a transcendental role in their communities and the world stage. Yet this is what I have seen [Reverend Moon] doing

Activist, Interfaith Organizations

1. Interfaith is **intrinsic to Unification teachings and theology**
2. interfaith work **combines two restoration processes** delineated in the *Divine Principle*,
3. 40 years, we have **invested more than ten times the budget of our own Unification Church.**
4. Reverend Moon's interfaith commitment and activity is guided by the principles delineated in his teachings, and is **pursued and expanded systematically according to the dictates and norms inherent in his theology.**

Activist, Interfaith Organizations

1. The **Will of God**
2. Follows **open, available principles**
3. Members **share the work.** They do not "follow" Reverend Moon,

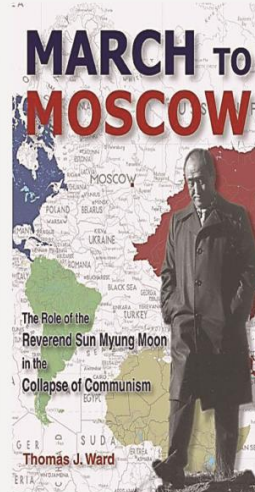
Activist, Interfaith Organizations

1. Holy Spirit Association for the Unification of World Christianity
2. Assembly of the World's Religions
3. Council for the World's Religions
4. Global Seminar of the World's Religions
5. Religious Youth Service
6. Inter Religious Federation for World Peace
7. Family Federation for World Peace

Rev. Moon's Contribution to the End of the Cold War and a Vision of World Peace

REV. MOON'S CONTRIBUTION TO THE
END OF THE COLD WAR AND A VISION
OF WORLD PEACE





JULY 1, 1973 DECLARATION TO BEGIN A MARCH TO MOSCOW

- In the last seven months since my arrival here in America, many significant events have occurred. The Christian community is now falling down, democracy is falling down. But in the heavenly center, our church movement and our mobile unit crusade is now booming. In number we are small, compared to millions, but this group has the power to support and stop the falling of the Christian community. Our real enemy is communism. However, the American government and the Christian community is not yet on our side -- we are still sort of isolated. Now, all sides are open, and in a way we are defenseless -- the government, the communists, even the Christian community can attack. But in strength, in the strength of our faith, though those powers seem to be incredible, they will not touch a finger upon you. This is equivalent to the battle of David against Goliath in the United States. I am like the shepherd in the desert to the American people. However, in this entire vast land of America, no one really dare say "I am going to take the responsibility to restore this country and stop communism." No one -- none dare bear that responsibility. Not even in the Christian community. So, the communist power is now growing daily and seems to be invincible. They say, "You, God fearing country of America, how much power do you have?" Communism is now approaching us as a formidable Goliath. America is now in the position to ask, "where is David?", where is the man who can stand up to communism? God, however, has things ready. David did not have any armament, he was dressed humbly and he stood up to Goliath. I am sure, from the position of communism, they are surely decided that the size of our Unification Church is so insignificant and our VOC is so small, that they are laughing at us.
- However, God will persevere and wait until the very last moment when things look bad; He will persist until the very last moment. That's the way God makes his victory dramatic -- from extreme to extreme. There, America's David is you, the Unification Church -- we are summoned. David stands forward to Goliath -- now Goliath is laughing at David but David, however small, knows that God is with him. He has firm belief that God is with him and unflinching faith that God's power is working within him. He never fears. With God with him, David became an invincible and fearless person. There, David is waiting for the final command from God. As soon as the command comes, he fought as with one stroke, and the decisive victory was done. How perfectly identical our position is to that of David. However, we should be better than David. At least David had his own nation -- Israel -- but we do not have our own nation; yet we emerge out of our wilderness -- we come to this power.
- So, our battle could be more dramatic than the battle of David. Because we formed our power in the wilderness, and came against a giant more dramatic than Goliath. Our victory will be a victory for God. The command to march forward against Goliath is coming today, July first. I only hope you are ready -- in your spirit, in your faith, your determination, and your physical well being. We must realize at the end of this battle what kinds of situations are waiting for us. We are in a position to pay the indemnity for all the worldwide causes in the final day. Once we fail this battle, once we become a defeated David, then the untold tribulation is ahead of this country, the people of the world, this country and you. We have no way to pay, except by our blood and flesh. We came this far in the history of the Unification Church working progress for the twenty years of history since 1960. We come to this final three years and the key to victory is in your hands -- the Mobile Unit Commander and State Representative becoming one with our Father. Actually, I have been waiting for this battlefield, waiting for this moment and 6,000 years history -- the True Parents have been waiting for this final moment of battle. This movement must come in order for us to go over and go beyond. So, we have 18 months and only 18 months, and must do our utmost best.
- We are in the position to die either way. We retreat, then death is waiting for us. We march forward, then death is waiting for us. What shall we do? [March] You have to decide that point. Those who make that resolve raise your hands. This day whether we win hope for the world, or disaster for the world. This is a life or death matter, and your life or death will be decided by you on this very day. Don't worry about the surrounding. Don't worry about the outlook of our enemies -- these are not the factors to decide victory. The key of victory is within you, it is not external. All I fear is that you may disobey God. This is the one fear I have -- I have no other fear. I am so glad I am here to be able to make this proclamation, this declaration -- this is already a step toward victory, since in order to make this declaration, I had to make certain preparation. So, by making that preparation, we have made the declaration of it.



WHERE IT ALL BEGAN

- When he felt called by God to return to travel to the North and to its capital city of Pyongyang, not far from his birthplace, to begin missionary activity there, he did not hesitate to do
- He escaped in October 1950 when Heung Nam Prison, where he had been confined, was liberated by United Nations
- Beginning from Pusan, Reverend Moon initiated his ministry



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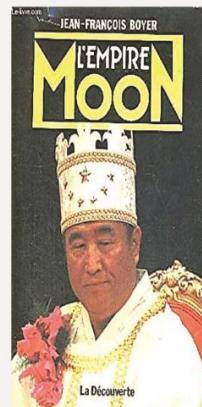


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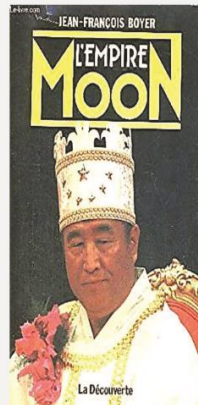
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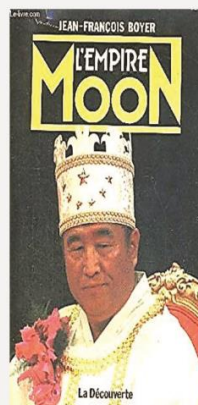
- Jean Francois Boyer L'Empire Moon



- Jean Francois Boyer L'Empire Moon



- Jean Francois Boyer L'Empire Moon



World Relief

International
Relief
Friendship
Foundation

- including Women's Federation for World Peace (WFWP), the International Relief Friendship Foundation (IRFF), Causa World Services and Religious Youth Services (RYS). These organizations, and WFWP, in particular, literally poured millions of dollars into supporting the building of schools for primary and secondary education in Africa and Latin America. WFWP offered scholarship opportunities for students in developing countries to pursue university-level study in the United States, Europe and Asia. IRFF, WFWP and CWS facilitated the distribution of food to victims of war and natural disasters in the Dominican Republic, Haiti, Bolivia, Japan, Burma, Nicaragua, and Democratic Peoples' Republic of Korea. IRFF medical teams from Japan and the United States have also provided free medical care for years to those afflicted by war and natural disasters in Southeast Asia, in Africa, and in Central America.

Reunião Especial sobre a Academia da Paz Universal
Com o Reitor da UPA, Rev. Dong Woo Kim
Sede Central, São Paulo, SP - Brasil 6 de agosto de 2015



- The Moons sponsored conferences through the Professors World Peace Academy (PWPA) beginning in 1973 to further dialogue amongst feuding parts of the world. Long before, it was permitted in those countries, he promoted and created venues for dialogue between those who supported and those who endured Apartheid, and between Palestinians and Israelis at a time when such exchanges were forbidden, as well as other feuding parties.
- Partial listing of several hundred PWPA Conferences that took place from 1974 until 1999 can be found here <https://www.pwpa.org/pwpa-conference-list/>. A record of more reason PWPA activity is available here <https://www.pwpa.international/>.

SUSTAINABLE DEVELOPMENT GOALS AND PROJECTS

- Reverend Moon constantly reminded us that he felt personally responsible to find a way to feed a world where he constantly grappled with the reality that 21,000 people, many of them infants and young children, still die of hunger every day. He initiated vast efforts to raise cattle, develop fish-farming, protect land through reforestation and other projects aimed at educating people from less developed countries about how to increase and stabilize food production while insuring sustainable development and protecting South American waterways and wetlands, notably in Brazil and in Paraguay through what is known as the Pantanal Leda Settlement. *Voice of America*, "World Hunger Day," May 28, 2019, accessed on January 20, 2020, <https://editorials.voa.gov/a/world-hunger-day-2019/4935420.html>.



INTERRELIGIOUS WORK



- Reverend Moon and Dr. Hak Ja Han have also long been concerned by the potential of an eventual conflict between the followers of Christianity and Islam. They have encouraged others to recognize the positives and the ways in which the Creator has worked through every major faith. They themselves have dedicated their large-scale outreach efforts through organizations that they have created such as Inter-Religious Federation for World Peace to foster understanding among faiths and support reconciliation over past divides. They continue to sponsor an annual dialogue amongst women leaders of the region through the Women's Federation for World Peace International. The 24th annual conference took place in November 2019. The Universal Peace Federation, a key partner in the World Summit, also remains keenly involved in Middle East initiatives through the work of Dr. Thomas Walsh, Dr. Michael Jenkins, and Dr. Taj Hamad.
- Inter Religious Federation for World Peace, accessed on January 20, 2019, <https://www.irfwp.org/wp/>
- Women's Federation for World Peace International, 24th Annual Women's Conference for Peace, November 15, 2019, accessed on January 16, 2020 <https://www.wfwp.org/news/24th-annual-womens-conference-for-peace-in-the-middle-east/>
- Universal Peace Federation, accessed on January 20, 2020, <http://www.upf.org/>



ADDRESSING MARXISM



- When I met Reverend Sun Myung Moon for the first time in March 1972, I was thrilled by the prospect of having a chance to listen to him over three days in a very intimate setting of only some forty people. I looked forward to him addressing a variety of topics. However, I had reservations about what I understood as his decidedly negative view towards Marxism-Leninism.
-
- When I came to hear him at that time, I anticipated that he would inform us, as Stephane Courtois did decades later in *The Black Book of Communism*, of the ways in which the population of the USSR had been decimated under Stalin's dehumanizing rule or of how Mao's megalomaniacal pursuit of "revolutionary immortality" had allowed him to brutalize tens of millions during his delusional Great Leap Forward followed by his senseless annihilation of at least an additional one to two million more during the Cultural Revolution.


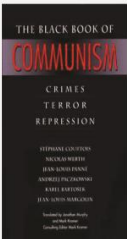


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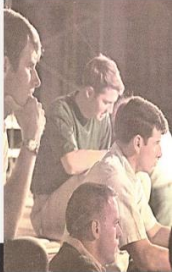




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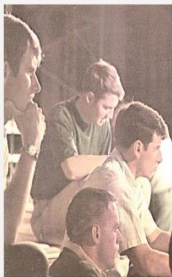

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- When I met Reverend Sun Myung Moon for the first time in March 1972, I was thrilled by the prospect of having a chance to listen to him over three days in a very intimate setting of only some forty people. I looked forward to him addressing a variety of topics. However, I had reservations about what I understood as his decidedly negative view towards Marxism-Leninism.
- When I came to hear him at that time, I anticipated that he would inform us, as Stéphane Courtois did decades later in *The Black Book of Communism*, of the ways in which the population of the USSR had been decimated under Stalin's dehumanizing rule or of how Mao's megalomaniacal pursuit of "revolutionary immortality" had allowed him to brutalize tens of millions during his delusional Great Leap Forward followed by his senseless annihilation of at least an additional one to two million more during the Cultural Revolution.



- As noted, he uttered not a single word about Stalin or Mao but instead he went to the very crux of the matter, to the metaphysical underpinnings of communism, or what Russians referred to as the "Diamat," that is dialectical materialism. He demonstrated that this dynamic in which conflict was defining and unity was ephemeral was not the way in which the universe functioned. He simply observed a principle from his religious teaching, clarifying that the relationship, for example, between a proton and an electron, as argued by Engels and even by the Soviet ideologue Victor Afanasyev still at that time in the Soviet Union was not a conflicting, subject-subject, adversarial relationship as Engels had indicated but instead a cooperative, reciprocal relationship. What Engels had depicted in the *Dialectics of Nature* as a conflict in a seed between the covering or seed coat and the developing embryo within was not one where the seed coat hardened and became more resistant as the embryo grew.



DIALECTICAL MATERIALISM UNDERLYING PRINCIPLE OR METAPHYSICAL MODEL

- Proton (S) $\rightarrow \leftarrow$ (S) Electron

REVEREND MOON'S REFUTATION OF MARXISM

- Proton (S) $\rightarrow \leftarrow$ (S) Electron



REVEREND MOON'S REFUTATION OF MARXISM

- Proton (S) $\rightarrow \leftarrow$ (S) Electron
- Proton (S) \rightleftharpoons (O) Electron



REVEREND MOON'S REFUTATION OF MARXISM

- Proton (S) \rightarrow \leftarrow (S) Electron
- Proton (S) \rightleftharpoons (O) Electron \rightarrow Hydrogen Atom



REVEREND MOON'S REFUTATION OF MARXISM

- Proton (S) \rightarrow \leftarrow (S) Electron
- Proton (S) \rightleftharpoons (O) Electron \rightarrow Hydrogen Atom
- Cation (S) \rightleftharpoons Anion (O) \rightarrow Molecule



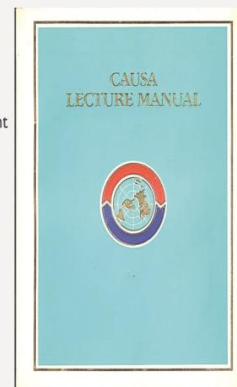
REVEREND MOON'S REFUTATION OF MARXISM


- Proton (S) → ← (S) Electron
- Proton (S) ⇌ (O) Electron → Hydrogen Atom
- Stamen (S) ⇌ (O) Pistil → Seeds
- Male (S) ⇌ (O) Female Animals → Offspring
- Man (S) ⇌ (O) Female → Children



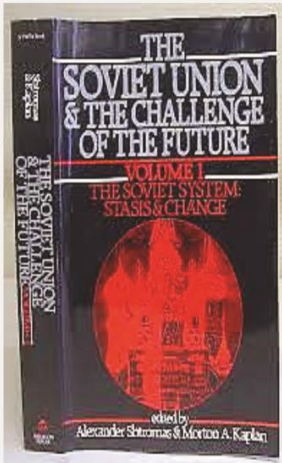
ACADEMIC ANALYSIS OF COMMUNISM

- Prior to that meeting, I had sympathy for Marxist militants, convinced that Marxism was true but that it had been poorly or wrongly applied. Following that meeting, when I challenged Marxists regarding the veracity of the materialist dialectic as the underlying dynamic for progress in nature and in society, I found that they were unable to refute the explanation of cooperation and give-and-receive reciprocal relations, rather than contradiction and conflicts, as the guiding dynamic or phenomenon through which multiplication of living beings and maintenance of order in atoms, ions, and matter were established and preserved.
- A few years later, I was exposed to the entire body of Rev. Moon's and Dr. Sang Hun Lee's work on communism. I realized that his work had covered every aspect of communism: Marxist political economy including the Labor Theory of Value, the Theory of Surplus Value, and Marx's Laws of Economic Movement. It also pointed to the falsehood of Marx's View of History and Marx's interpretation of Alienation.
- Marx's View of Alienation
- Labor Theory of Value
- Theory of Surplus Value
- Marx's Laws of Economic Movement
- Lenin's Theory of Imperialism
- Marx's View of History
- Dialectical Materialism







- In 1985, while imprisoned in the U.S., Reverend Moon provided the PWPA funding for an international conference in Geneva, Switzerland, where 90 of the top world experts on communism discussed the iconoclastic “Fall of the Soviet Empire: Prospects for Transition to a Post-Soviet World.” PWPA chapter presidents from 90 countries were invited to attend so they could explain the fallacies, dysfunction, and real goals of communism, as its evangelists and activists were still very active promoting revolution social turmoil. The conference resulted in a four-volume work entitled *The Soviet Union and the Challenge of the Future* (1989) and PWPA was recognized by the *National Interest* in Spring 1993, along with Zbigniew Brezinski, as being one of the two academic sources that rightly anticipated the demise of the Soviet Union.
- Professors’ World Peace Academy, “Second International Conference: “The Fall of the Soviet Empire”: Prospects for the Transition to a Post-Soviet World,” August 20, 1985; <http://www.pwpa.org/events/second-international-congress-the-fall-of-the-soviet-empire-prospects-for-transition-to-a-post-soviet-world/> accessed on May 21, 2017.
- The *National Interest*, No. 31, Spring 1993, “Sovietology: Notes for a Post-Mortem” by Peter Rutland, p. 111.



ASSESSMENT OF CAUSA LECTURE SERIES

- In his book *Jesuitas, Iglesia y Marxismo 1965-1985*, Dr. Ricardo de la Cierva, a respected historian and the former Minister of Culture of Spain, wrote, “the CAUSA International Movement has published a lecture manual (1985) that seems to me to be the best generic study of Marxism from within the anti-Marxist camp.”
- William Rusher an American conservative thinker and editor of *National Review* described CAUSA’s work in this way:
- “I have enormous respect for the work CAUSA does, for the analysis, which is clear, accurate and honest and looks in the round at these questions. These conferences are organized and conducted all over the United States to call to the attention of leadership personalities like yourselves the rather intricate aspects of communism that get overlooked in our daily debates.
- Ed. Thomas J. Ward, *An Idea whose Time has come*, (New York, CAUSA Institute, 1989), p. 22. *Ibid*.





ROAD TO RECONCILIATION

• Reverend Moon's 1990 Rally in Moscow

- During much of the 1980s the World Media Association (WMA), a media organization for journalists that was founded by Reverend Moon and headquartered at *The Washington Times*, provided opportunities for journalists from numerous publications to participate in fact-finding tours abroad and acquire first-hand exposure to numerous vortices of the Cold War. In 1982 Reverend Moon charged Mr. Larry Moffitt, Executive Director of WMA to begin to bring journalists from the West to the Soviet Union. These fact-finding tours eventually led to breakthroughs in ties between the Moon Organization and the Soviet leadership beginning with leaders of Novosti Press Agency. It was with the help of Novosti that in Spring 1990 Reverend Moon was able to visit Moscow and hold a conference or "rally" there.

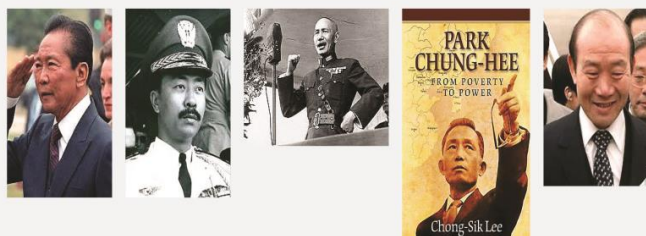




- The American journalist Georgie Anne Geyer wrote an article commenting on the April 1990 Moscow *Novosti*-World Media Conference meetings. In her editorial, entitled "Most Unlikely Conference Meeting," Ms. Geyer commented as follows:
- Of all the impossible events that have occurred in the Soviet Union in the last five years, probably none has been as unlikely as the happy meeting in recent days between Mikhail Gorbachev and the Reverend Sun Myung Moon. The *Moscow News* called Mr. Moon "the most brilliant anti-communist and the No. 1 enemy of the state"—and then added, please, that it was 'time to reconcile.'
- Ms. Geyer went on to write that "this was after Reverend Moon, the head of the Unification Church, had lectured the Soviet people on Adam and Eve." Ms. Geyer added that "the highest level Soviet officials present—atheists all—listened impassively." Among those in attendance were Albert Vlasov, Chairman of the Novosti Press Agency and Yuri Ossipian, a key advisor to President Gorbachev.
- *Ibid.* p. 98.
- Bo Hi Pak, *The Truth is my Sword*, Vol. II, (New York: HSA-UWA, 1999) p. 594

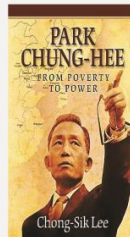


- The American Left also seemed to have a deep-seated, kneejerk disdain for authoritarian Asian allies to the United States such as Ferdinand Marcos, Chiang Kai-Shek, Nguyen Cao Ky, and Park Chung Hee. Their disdain for these leaders far outweighed their reservations towards the far more brutal and dehumanizing acts of Stalin, Mao Zedong, Pol Pot, or Ho Chi Minh. I am tempted to attribute it to an unreasoned racial and ideological stereotyping. Asian authoritarian figures who fit on the right side of the political spectrum were depicted by the establishment media as spineless pro-American sycophants who, to maintain power and enrich themselves, curried favor from the United States, and opposed progress. Reverend Moon, a Korean, was placed in that same "box" as the Asian rightist authoritarians despised by the American media





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A PATH TO RECONCILIATION



- Soviet attendees included former KGB General Oleg Kalugin, *Izvestia* editor Lev Kornishev, and U.S.S.R. Minister of Justice Sergei Lushchikov. Some 3,000 Soviet young people were sponsored by Rev. Moon to visit the United States and participate in an exchange program under the auspices of the International Educational Foundation (IEF), an organization founded by Rev. Moon to promote education, reconciliation, and dialogue amongst the young people of the free and the communist worlds.

A PATH TO RECONCILIATION



NORTH KOREA CANCELS ANNUAL 'ANTI-US' RALLY AS RELATIONS IMPROVE FOLLOWING TRUMP-KIM MEETING

DEMONSTRATION USUALLY KICKS OFF MONTH OF
ANTI-US EVENTS FOCUSED ON THE KOREAN WAR

JUNE 25, 2018




• After several unsuccessful attempts, Rev. Moon finally received an official invitation to travel to Pyongyang in November 1991. He was both affable and frank during his visit there. He was, in fact, so frank that some of those who accompanied him wondered whether they would ever see Seoul or Washington again. In a meeting with top DPRK officials, Rev. Moon stated unequivocally that neither Kim Il Sung's brand of communism (known as *Juche* thought) nor the guiding political philosophy of South Korea could bring about Korea's reunification. He emphasized that his teachings of "headwing" (as opposed to right or left) were meant to play a central role in facilitating reconciliation between the North and South. Rev. Moon's bold pronouncement that *Juche* could not bring the Koreans together shocked Kim Il Sung's followers as well as his own.

• Apparently over the protest of some of his subordinates, Kim Il Sung decided to meet with Rev. and Mrs. Moon on the last full day of their visit to the North. In spite of their marked philosophical differences, their encounter proved to be positive. Reverend Moon was soon publicly recognized by North Korea as one of the "heroes" promoting North-South reconciliation. Collaboration soon followed on a number of projects including an automobile factory.


• Youtube, MBCNet Special Report on Reverend Sun Myung Moon English, August 22, 2013, https://www.youtube.com/watch?v=N-HIC4g_tc accessed on May 1, 2017.

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- *Ibid.*

HATE AMERICA MONTH IN DPRK

JUNE 25-JULY 27
SINCE 1953



HATE AMERICA MONTH IN DPRK

JUNE 25-JULY 27
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1992



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Father embraces Dr. Jerry Falwell at a private meeting in Chicago, December 1995.




* The positive outcomes that Rev. Moon experienced in Pyongyang in 1991 and in Moscow in 1990 represented the culmination of a process that he had initiated in June 1946 when he traveled North to Pyongyang from Seoul. Reverend Moon's efforts in the years that followed his 1990-1991 visits confirm that, from the very beginning, the enemy of Reverend Moon was never the communists but the ideology that restrained them from achieving ideals of peace, justice, and prosperity. He wanted individuals, in the free world and the communist world alike, to recognize the tragic implications of implementing a worldview that decrees the non-existence of a transcendent source of nature and the universe and thus delimits humanity's quest for meaning and realization by imposing a flawed ideology with hubris that makes enemies expendable. I believe Reverend Moon's accomplishments in Russia and North Korea can be viewed as "conflict transformation." Since his meetings with Soviet President Gorbachev, and Kim Il Sung in North Korea, the world has become complicated and exacerbated by new forms of violence and conflict. New ideological absolutisms must be met with new initiatives. Nevertheless, there is value in studying and reflecting on the extraordinary efforts that Reverend Moon made both to address communism constructively and to seek peace and reconciliation with those who had seen him as their enemy. Those efforts continue today through his spouse Dr. Hak Ja Han Moon and many followers who remain active in promoting North-South and US-DPRK dialogue.








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Interfaith Encounters: Debating, Dialogue and Dining

Dr. Charles Selengut

Prof., Drew University, USA

Abstract

This paper discusses and analyzes the nature and activity of the interfaith meetings sponsored by the Inter-Religious Federation for World Peace and the decades long efforts of its predecessor organizations such as New Ecumenical Research Association (New ERA), Council for the World's Religions (CWR), Religious Youth Service (RYS), and others. The paper discusses the format, values and normative procedures of the conferences illustrating the successes of this corpus of interfaith work in fostering genuine religious dialogue and cooperation. The conferences and activist efforts were based upon respect for all religious traditions, free and open discussions and a willingness to recognize religious differences but to acknowledge and appreciate the value and validity of the world's religions. A goal of the work was to develop an understanding of the inner life of each tradition while seeing the commonalities in all traditions in their search and journey for faith and religious transcendence. The leadership of these organizations knew that in the twenty- first century in an age of globalization religions must come together to work for cooperation and world peace.

The Theology of a Member of The Church of Jesus Christ of Latter-day Saints Regarding our Heavenly Parents

Dr. Jason Wasden

Finance and Policy Professional, USA

Abstract

This paper explains the theology of a member of the Church of Jesus Christ of Latter-day Saints regarding his relationship to our heavenly parents. It will explain his belief in Jesus Christ's role as his Savior and Redeemer. It will describe his concept of our premortal life, the role of Jesus in the preexistence, and the importance of virgin birth. It will clarify the dispensations of time, and define apostasy, in order to expound on the importance of the restoration of the Gospel of Jesus Christ. It will clarify the role temples play for members of the church, and define priesthood. Finally, it will explain the significance of being a covenant people, and the vital importance of the New and Everlasting Covenant of Marriage.

Keywords: Apostasy, Christ, Christians, Covenant, Dispensation, Jesus, Jesus Christ, Premortal, Preexistence, Priesthood, Restoration, Savior, Temples, The Church of Jesus Christ of Latter-day Saints,

A Members Beliefs Regarding the Restored Church of Jesus Christ. A Review of My Theology Having Been Born in the Covenant, and Receiving the Holy Priesthood and Everlasting Gospel.

This paper will explain my beliefs as a member of The Church of Jesus Christ of Latter-day Saints, who was born in the covenant, and what my relationship is to my heavenly parents. In order to understand my beliefs, I will provide a description of the theology that leads me to come to the conclusion, I am a spiritual son of God, and we are all brothers and sisters. We are all spiritual children of heavenly parents who love us, and want us to become like, return to, and have joy with them in the Kingdom of Heaven with a resurrected telestial, terrestrial, or celestial body (1 Cor 15: 40-42). The fullness of the gospel has been restored in this last dispensation of time to Joseph Smith, the prophet, who was given priesthood authority, and keys to organize the church.

Understanding the structure of The Church of Jesus Christ of Latter-day Saints, and the standard works of The Church of Jesus Christ of Latter-day Saints is vital, in order to understand the theology. I believe Jesus Christ is the head of The Church of Jesus Christ of Latter-day Saints, and he reveals his will for the whole church to the prophet Russell M. Nelson. God's house is a house of order, not a house of confusion (D&C 132:8), thus, He provided a structure for the church. The prophet has two counselors, twelve apostles (Eph 4:11), and quorums of the seventy (Luke 10:1-17) to provide council when administering the affairs of the church. All of the aforementioned men travel the world, and work with local leaders: Stake Presidents, Bishops, Branch Presidents, and Mission Presidents, as well as, the children, youth, and women's organizations which exist to support families.

Joseph Smith established the oldest women's organization in the United States called the Relief Society and appointed Emma Hale Smith to be President in March of 1842. August 11, 1878, under the direction of the General Relief Society President Eliza R. Snow, with permission from church leaders, Aurelia Spencer Rogers organized the Primary program. Primary was created for children 18 months to 11 years. The Young Men's and Young Woman's programs were created for youth 12 to 18. Youth 14 and up attend seminary which was established in 1912, in addition to their secular education. Once they graduate high school, young adults have the option to attend institute classes which were established in 1926. Institute is provided for young adult's age 18 to 30. Adult religion classes are available for those over 30. All organizations have leaders and presidents who work with the prophets, apostles, and the seventies, as well as, local leaders. Every organization in the church uses the same canon of scriptures often referred to as the standard works.

The standard works are ancient, and modern texts given to us by prophets of the Almighty God in this final dispensation of time. Previous dispensations did not have the standard works/scriptures. We are blessed to have them before the second coming of our Savior. The standard works/scriptures used by The Church of Jesus Christ of Latter-day Saints include: The King James version of the Bible, The Book of Mormon (BOM), The Doctrine and Covenants (D&C), and the Pearl of Great Price (PGP). In order to understand the theology of the church, one must refer to these texts.

The Book of Mormon was translated by Joseph Smith who was prepared to receive them from the Angel Moroni (BOM Testimony of the Prophet Joseph Smith), and contains writings of the former inhabitants of the American continent. He began translating in earnest April 7, 1829 and completed the translation at the end of June 1829. The translation was completed in 85 days, most likely, he only worked 55 days. The rate of interpretation is roughly 8 to 10 pages per day.

Three witnesses were shown these plates by an angel, and the voice of God declared to them they were translated by the gift and power of God (BOM Testimony of the Three Witnesses). Eight additional witnesses were shown the plates by Joseph Smith (BOM Testimony of the Eight Witnesses). None of the witnesses of the plates is known to have denied their testimony of seeing or handling the plates despite some being excommunicated

from the church. These witnesses are important as they follow a pattern that all things are established in the mouths of two or three witnesses (2 Cor. 13:1). Despite all the persecution throughout his life, Joseph never denied he saw God the Father, and his son Jesus Christ, or that he was commanded to translate the Book of Mormon. Joseph sealed his testimony with his blood when a mob stormed the jail cell he was being held in, and shot and killed the prophet (D&C Section 135).

Most Christians accept the Bible as the word of God according to their interpretation of it. God the Father, and his son Jesus Christ appeared to Joseph Smith at the tender age of 14 to answer his first vocal prayer regarding his question about which church he should join. This question came to him through his study of the Bible, and because there were so many denominations on the earth who had slightly different doctrines and beliefs. While he was reading the fifth verse of the first chapter of the epistle of James in the New Testament, “If any of you lack wisdom, let him ask of God, that giveth to all men liberally, and upbraideth not; and it shall be given him.” He decided to ask God which church he should join. The answer he was given was not to join any church because they were all wrong (PGP Joseph Smith History 1:19).

I believe all religions who worship God have truth, and we can find commonality with them. Brother Tad R. Callister former Sunday School General President for the church taught, The Lord’s declaration in D&C 1:30 does not mean that other churches do not have some truth, for certainly they do. I believe the Church of Jesus Christ of Latter-day Saints has the fullness of the Gospel of Jesus Christ, I believe more revelation comes through the prophets of our dispensation who continue to reveal more truth. The ninth article of faith in the Pearl of Great Price states: “We believe all that God has revealed, all that He does now reveal, and we believe that He will yet reveal many great and important things pertaining to the Kingdom of God.” (PGP The Articles of Faith 1:9)

I believe The Church of Jesus Christ of Latter-day Saints is the Kingdom of God on earth, and it is the only Church of Jesus Christ with the Authority to act in the name of God that follows the pattern He established when He was on earth. Brother Tad R. Callister said if one were to match the blueprint of Christ’s original Church against every church in the world today, he would find it will only match one, The Church of Jesus Christ of Latter-day Saints. I believe revelation defined as communication from God has not ceased. While the prophet receives revelation for the church, we are entitled to revelation from God for ourselves and our families. I believe when Christ returns all righteous people of every faith will be on the earth and through missionary work we will all become united.

Members are Christians and Jesus Christ is Our Savior

I am a Christian. I believe our brother Jesus Christ is our Savior. He is the literal son of our Father in Heaven. He atoned for the sins of the world in the Garden of Gethsemane, and died on the cross for those sins. Jesus Christ is the only begotten son of our Father in Heaven in the flesh, He is perfect in every way. He suffered, died, and rose from death in order that he could lift us to eternal life. God giving his son was a great act of love.

For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life (John 3:16). Unlike me Jesus was conceived by the power of the Holy Ghost which descended upon Mary (Matthew 1:18). He was perfect and foreordained to come to earth to atone for our sins, just like we planned in the pre-mortal world with our Heavenly Parents (PGP Abraham 3). God is all knowing, and all powerful, he is the same yesterday, today, and forever (D&C 20:12). His purpose is to bring to pass the immortality and eternal life of man despite the fall of Adam (PGP Moses 1:39).

We will not be punished for Adams transgression in the Garden of Eden, rather we will be punished for our own sins (PGP Articles of Faith 1:3). In the premortal life God the Father prepared a plan and chose our Brother Jesus Christ's as our Savior over Lucifer's plan (PGP Abraham 3: 24-28). Because of this, Lucifer became angry with God, and did not keep his first estate. He was cast out of heaven, down to the earth (Rev 12:9), with all those who followed him, because he rebelled against God, and sought to destroy the agency of man. When he was cast down to earth, he became Satan, and hoping to make man miserable like unto himself, he began to tempt, and try man to disobey god (PGP Moses 4: 1-5). Through repentance Christs grace is sufficient to redeem us from our sins.

Premortal Life the Plan of Salvation and Virgin Birth

In our pre mortal life we lived with our father and mother in heaven with our spirit brothers and sisters. Those who chose to follow Jesus Christ plan were born to earthly parents. Learning we are spirit sons and daughters of heavenly parents in church was reinforced by what I learned in science. Matter cannot be created or destroyed, only transformed. This confirmation of my belief that we have always existed, and always will, strengthened my testimony of the gospel. This knowledge reinforces my belief in a pre-existence, or premortal existence because something cannot be created from nothing. I must have come from somewhere.

When we die our spirit leaves our body, and journeys to the spirit world where we either dwell in paradise, or spirit prison (BOM Alma 40: 11-12). Jesus, after He died and before he was resurrected, preached to those in spirit prison (1 Peter 3:19) & (1 Peter 4:6). Because of the atonement of Jesus Christ all who have lived on the earth will be reunited with their body in perfect form. Jesus suffered for our sins, the just and the unjust, that he might bring us to God, being put to death in the flesh, but quickened by the Spirit (1Peter 3:18). In this plan

through his grace, we are saved, and by our works, we prove our discipleship, because faith without works is dead (James 2:20).

The plan of salvation was prepared from the foundation of the world, for all who would believe on Christ's name (BOM Alma 22:13). If Adam and Eve had not transgressed, they would not have fallen, but would have remained in the Garden of Eden having no children, because they would have remained in a state of innocence, having no joy for they knew no misery, doing no good for they knew no sin. Adam fell that men might be; and men are, that they might have joy (BOM 2 Nephi 2:22-25). Lucifer wanted to take away our agency and force everyone to live God's laws while he received the glory of saving everyone. Jesus offered to atone for our sins and give the glory to God.

Christ offering to act as our Savior in the Fathers plan gave us agency to choose between good and evil while we were here on earth. God chose Jesus as our Savior over Lucifer who wanted to force us all to choose the right, and thus eliminate our agency as children of God. This is evidence of God's love and trust for us. Even though we would experience the evils of a telestial world, and be tempted by Satan, we would learn love, kindness, and joy. Our Father allowed his only begotten son to be born of the Virgin Mary, as prophesied by Isaiah, to save us from our sins, and give us agency to choose between good and evil.

Therefore the Lord shall give you a sign; Behold, a virgin shall conceive, and bear a son, and shall call his name Immanuel (Isaiah 7:14). Matthew taught us Emmanuel was Jesus Christ, "Behold, a virgin shall be with child, and shall bring forth a son, and they shall call his name Emmanuel, which being interpreted is, God with us." (Mathew 1:23). When Joseph was brought to the knowledge that Mary was with child, he did not want her to be stoned to death. Joseph struggled about what to do, and an angel appeared to him saying, "Joseph, thou son of David, fear not to take unto thee Mary thy wife: for that which is conceived in her is of the Holy Ghost" (Mathew 1:20). This confirmation allowed Joseph to accept the birth of Jesus Christ, and act as his stepfather on earth, and protect both Mary and Jesus from those who would seek to destroy them in the dispensation of the meridian of time.

Dispensations Apostasy Restoration and Temples

Every dispensation is marked by a prophet who had authority and keys from God to restore the truths that were lost through apostasy, and dispense the truth throughout the world. Apostasy is a rebellion, or turning away from the truth of the Gospel. We are living in the last dispensation of the fullness of times, before the second coming of our Lord and Savior Jesus Christ. What makes our dispensation different from previous dispensations is this one will not end in apostasy. Rather we will be like the city of Enoch.

Enoch restored the truths taught by father Adam, and Zion was taken up to heaven (PGP Moses 7:18-19, 69). Those who remained on the earth fell into apostasy. Noah restored the gospel in the third dispensation, but due to the people's wickedness the Lord flooded the earth, and started over. Noah's dispensation began with only 8 people 969 years after Zion

was taken to heaven. Abraham restored the Gospel in the fourth dispensation of time. Moses led the Tribes of Israel out of bondage in the fifth dispensation. Jesus Christ came in the meridian of time in the sixth dispensation to restore the gospel. Jesus organized his church for the first time with twelve apostles to teach the people the truths that had been lost through apostasy. His church consisted of apostles, prophets, pastors, teachers, and evangelists (PGP 1:6) Joseph Smith restored the fullness of the gospel in the dispensation of the fullness of times (Eph 1: 9-10) that had been lost throughout the dark ages, and the seventh dispensation began.

Some of the simple truths Joseph restored are that God has a physical body, the importance of the authority to act in God's name, and the need for the sealing power to link the generations together. We learn from Joseph's vision that the Father and Son are perfect and glorified (PGP Joseph Smith History 1: 17). We learn a mission of the Holy Ghost is to testify of the divinity of Christ as our Savior.

Priesthood Authority

The authority to act in God's name is called the priesthood. The Aaronic Priesthood is an appendage to the Melchizedek priesthood restored through John the Baptist who came to Joseph Smith and Oliver Cowdery near Harmony Pennsylvania, as a resurrected man, and conferred the Aaronic Priesthood upon them. Per his instruction Joseph and Oliver baptized each other in the Susquehanna River (PGP Joseph Smith History 1:68-72). The ancient Apostles Peter, James, and John conferred the Melchizedek Priesthood upon Joseph Smith and Oliver Cowdery (D&C 128:20). When the saints completed the restoration of the Kirtland Temple, Moses, Elias, and Elijah appeared, and gave priesthood keys to Joseph and Oliver which conferred upon them the sealing power. The appearance of Elijah in the temple fulfilled the prophecy in Malachi 4:5 that stated "Behold, I will send you Elijah the prophet before the coming of the great and dreadful day of the LORD".

During Elijah's ministry, he ordained and anointed Elisha to succeed him. Elijah like Moses before him did not die (BOM Alma 45:19). Elijah was translated, and ascended into heaven in a chariot of fire (2 Kings 2:11). The sealing power was important for the building of temples. There is a difference between churches and temples. Temples are the literal house of the Lord, and those who enter into dedicated temples must live by his commandments.

Members obey the Ten Commandments given to Moses. We choose to live the law of Chastity, which says that we will not have sexual relations with anyone we are not legally and lawfully wedded to according to the law of God. We obey the Word of Wisdom, and abstain from alcohol. We pay generous tithes, and offerings to the church which are used to build buildings, and take care of the poor and the needy. At this time we live the law of tithing, and anticipate the day we live the law of consecration in its fullness when the Lord asks us to do so. Members who do not live the commandments cannot be sealed in the Temple.

Members of The Church of Jesus Christ of Latter-day Saints can be married outside of temples, however we believe until we are sealed in the temple for time and all eternity civil marriage ends when we die. Children born to members who have been sealed are considered to be born in the covenant. They are sealed to their parents for time and all eternity, in the temple, by a sealer who was given the sealing power that was restored to earth by Elijah to the prophet Joseph Smith. Children who are not born in the covenant are brought to the temple by their parents to be sealed as a family forever.

Members who attend the temple understand the sacred nature of the covenants made. To get the most out of our time at or in the temple we must be worthy to enter the house of the Lord, as we are his guests. It is a joyous reverent time to feel the closeness to our family who have passed on, our Savior, and our Heavenly parents who anxiously await the day we will be reunited with them. In the temple we experience preparatory ordinances; the giving of instruction by lectures and representations; covenants; and tests of knowledge. We dress in white to symbolize purity, worthiness, and cleanliness. The Temple is open to the public before it is dedicated, once it is dedicated members holding a temple recommend may enter. The purpose of building temples was for the Lord to reveal the ordinances previously lost (D&C 124:38, 40-41). The temple is a place to conduct anointing's, washings, baptisms for the dead, endowments, sealing of families, and solemn assemblies (D&C 124:39).

Ordinances performed in church's are baptism, sacrament, naming and blessing of infants, administering to the sick, setting apart for church callings, and ordaining to offices. Churches are open to the public, and all are welcome to attend. Many of the ordinances performed in the church, and the holy temple of our God are needed for us to be exalted in the Kingdom of Heaven. The temple is the center of the churches spiritual strength. Satan constantly interferes with members seeking to participate in the sacred covenants made there. Latter-day Saints are a covenant making people, we make promises to God, and He in turn makes promises to us.

Covenant Children

Just like the Lord made a covenant with Abraham, which he reaffirmed to Isaac, and Jacob that Abraham's posterity would be numerous, entitled to eternal increase, and they would bear the priesthood (Genesis 26:1-5, 24). Members make and keep these same covenants with God. Abraham was told he would be the father of many nations (Genesis 17: 1-10). Christ and kings would come through Abraham's lineage, certain lands would be inherited. All nations of the earth would be blessed by his seed (Genesis 28: 1-4, 10-14), and the covenant would be everlasting even through a thousand generations (1 Chronicles 16:15).

At baptism members of The Church of Jesus Christ of Latter-day Saints covenant to serve the Lord and keep His commandments. We partake of the sacrament to renew, and remember our baptismal covenants. When men receive the Aaronic and Melchizedek priesthoods, and magnify our calling we become sanctified by the spirit unto the renewing of our bodies.

“Then we become the sons of Moses and of Aaron, the seed of Abraham, and the church and kingdom, and the elect of God” (D&C 84: 32-40). The new and everlasting covenant in the gospel allows us to qualify for marriage in the temple, and “be blessed to come forth in the morning of the first resurrection to inherit thrones, kingdoms, principalities, powers, dominions for our exaltation, and glory in all things” (D&C 132:19).

Children born in the new and everlasting covenant of marriage are natural heirs to the blessings of the priesthood. They do not require a rite of adoption, or sealing to insure them place in the posterity of promise. Rewards for obedience to the commandments are almost beyond mortal comprehension (James E. Talmage Articles of Faith). Here, children of the covenant become a strain of sin-resistant souls, and will be linked together as one family, the divine family of God. Sealing families’ together back to Father Adam is a great comfort for us. Knowing our loved ones are secured to us through covenants we made with God, is the reason we do missionary and temple work.

We are connecting all generations back to Father Adam and Mother Eve, in order to be one family with our heavenly parents. Members of The Church of Jesus Christ of Latter-day Saints are united. The Lord has told us that if we are not one we are not his (D&C 38:27). We pray for each other, we minister to each other, as well as those who are not of our faith. Our faith has been tested and tried, and our people stand united. We invite all to come unto Christ, and rejoice in the fullness of his restored gospel.

My Testimony

Members of the Church of Jesus Christ of Latter-day Saints are Christians who worship the living Christ. We believe his house is a house of order. Our theology is derived from the standard works which include the King James Version of the Bible, The Book of Mormon, The Doctrine and Covenants, and the Pearl of Great Price. We believe God is the same yesterday, today, and forever and that he speaks to ordained prophets who hold the priesthood which was restored by John the Baptist, Peter, James, and John. Families will be together forever because Moses, Elias, and Elijah came to Joseph Smith in the Kirtland Temple and restored the sealing power.

Revelation has not ceased, the prophet leads the church, and we lead our families. When we die our spirit will leave our body, and reside in the spirit world. Because Christ is our Savior on earth, we will be resurrected at the beginning of His millennial reign. Thereafter we will have a final judgement and receive one of the Kingdoms of God after our judgement. Christ is a perfect judge because he lived a perfect life as the only begotten son of our Father in Heaven, and by his Grace we will be saved. We live in the dispensation of the fullness of times, and it will not end in apostasy. We are a covenant making people, and because the sealing power was restored we can enter into the New and Everlasting Covenant of Marriage and have joy and rejoicing in our posterity.

I believe we are one family, a family of God. We are all spirit brothers and sisters. Our physical bodies were made possible because our Father Adam fell (BOM 2 Neph 2:25). The fall made us subject to the carnal nature of man (BOM Mosiah 3:19), but because Jesus atoned for our sins through repentance, we can overcome our evil nature. After the gift of resurrection, and the judgement of Christ, we can be exalted with our Heavenly parents in the Kingdom of God as one united family, if we keep our covenants.

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The Theology of a Member of The Church of Jesus Christ of Latter-day Saints Regarding our Heavenly Parents

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THE THEOLOGY OF A MEMBER OF THE CHURCH OF JESUS CHRIST OF LATTER- DAY SAINTS

Prepared for the Academic Symposium, "God Conference and God as the Parent of Humankind"

Seoul, Korea February 3 - 5, 2020

I AM A CHILD OF GOD AND SO ARE YOU



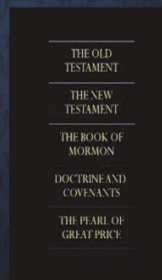
OUR PURPOSE

- Return to our Heavenly Parents in the Celestial Kingdom of Heaven
- Have Joy



UNDERSTANDING THE CHURCH

- Canon of scripture called the standard works
 - King James Version of the Bible
 - Book of Mormon
 - Doctrine and Covenants
 - Pearl of Great Price
- Structure of the Church
 - Jesus Christ Head
 - Prophet
 - Apostles
 - Seventies
 - Area Authorities
 - Stakes
 - Wards



OTHER AUXILIARIES

- Relief Society
 - Emma Hale Smith President March 1842
- Aurelia Spencer Rogers August 1878
- Seminary 1912
- Institute 1926

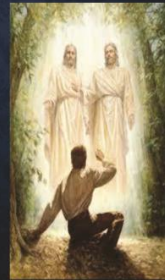
WITNESSES TO THE BOOK OF MORMON

- Eleven witnesses
 - Three were shown the plates by an angel
 - Eight were shown the plates by the Prophet Joseph Smith
 - None of the witnesses denied their Testimony
- Joseph never denied his testimony and sealed it with his death.



GOD AND JESUS ANSWER JOSEPH'S PRAYER

- Epistle of James 1:5
- Joseph commanded not to join any church and to organize a church after the pattern our Savior established while he was on earth.



TRUTH

- Other religions have truth
- Science has truth
- Truth in the church comes through revelation.
 - The Prophet receives revelation for the church.
 - We receive revelation for ourselves and our families.
 - We live in the fullness of times and not all revelation has been revealed.

MEMBERS OF THE CHURCH ARE CHRISTIANS

- We believe Jesus Christ is our Savior
- Jesus is the literal son of a living God
- He atoned for the sins of the world in the Garden of Gethsemane
- He gave his life on the cross that we might live again
- He was conceived of virgin birth through the power of the holy ghost

GOD'S PURPOSE

- Bring to pass the immortality and eternal life of man
- We will be punished for our own sins

PREMORTAL LIFE

- God created the plan of salvation
 - God Chose Jesus over Lucifer to be our Savior
 - Lucifer was angry and did not keep his first estate
 - The angels that followed him were cast down to earth
 - Lucifer became Satan

RELIGION & SCIENCE

- Faith taught me we have always existed and always will
- Science confirmed my faith
 - Can not destroy or create matter or change it
 - At death our spirit leaves our body and journeys to the spirit world
 - When we are resurrected our spirit and body are reunited

PLAN OF SALVATION & ADAM'S TRANSGRESSION

- If Adam and Eve had not transgressed they would not have fallen, but remained in the Garden of Eden.
 - Remained in state of innocence like children
 - No joy knew no misery
 - Doing no good knew no sin
- Lucifer wanted to take our agency and keep the glory to himself
- Jesus offered to be our Savior give the glory to the Father and give us agency to choose good or evil.

DISPENSATIONS & APOSTASY

- There are seven dispensations or periods of time
- Every dispensation has at it head a prophet given keys to restore truth
 - 1st – Adam
 - 2nd – Enoch
 - 3rd – Noah
 - 4th – Abraham
 - 5th – Moses
 - 6th – Jesus Christ
 - 7th – Joseph Smith

TRUTHS RESTORED

- God the Father and Jesus Christ are glorified resurrected men
- Priesthood & Ordinances Restored
 - Aaronic (Preparatory)
 - Melchizedek
- Law of Chastity
- Law of Tithing & Consecration
- Temples
 - Children born in the covenant

CONNECTING GENERATIONS

- We are connecting all generations back to Father Adam and Mother Eve
- If we are not one we are not his
- We invite all to come unto Christ and rejoice in the fullness of his restored gospel

It is my honor to have an opportunity to comment at a wonderful international conference. And I would like to express my deep appreciation for the organizers of this providential, memorable occasion. I also want to extend my gratitude to Dr. Lau and Dr. Mansourov for the excellent presentations with the insightful remarks. As a commentator, I would like to simply add a few words rather than raising questions to fulfill my assigned mission.

Life is always unstable and could be easily put in danger. In order to overcome such a situation, human being needs an identity and a personal protection. Therefore human being tries to verify that who I am and where I belong to. The concept of identity, however, is closely related with the consciousness of boundary which distinguishes me from the other people who have different characteristics. When anxiety increase in our lives, we tends to point out “the strangers or something unfamiliar” with an evil desire. These tendencies could be confirmed in religious history throughout the world. Some religious persons have believed that their own religions were superior to others with the conceit of monopolizing the truth. It has led to the exclusion of other beliefs as a result.

In this respect, Rev. Moon has proposed to propel for finding the common grounds through the reconciliation among religions by not only holding interreligious conferences but also providing numerous supports for interfaith activities. Rev. Moon has taught us that religions are like hiking trails leading to the top of a mountain. As there are several trail to reach summit, religions play a major role in guiding people to God. As Dr. Lau mentioned, religions should be considered mutually complimentary rather than contradictory, thus we might be able to find the common world theology where we can enjoy the universal values. Therefore the appropriate prescriptions for dealing with “the strangers or something unfamiliar” should be an open-minded attitude not an exclusive one. We need to prepare for mature encounter with the unfamiliar cultures. Nowadays, interdependence is affecting the various characteristics and norms of different cultures, and even if the changes in the norms of cultures are slow but slowly changing. To connect culture with culture, material resources alone is not enough. We need to prepare trust-building through the communication and dialogue. Rev. Moon’s teachings are meaningful in this regards.

Before the emergence of Asia-Pacific era, Western cultures have dominated world superiority with the economic, technological advancement and military superiority. But these days are coming to an end. The rise of China, Japan, and South Korea is remarkable. The combined GDP of the three countries accounts for 24% of the entire world. The era of Asia-Pacific has begun.

While the West enjoys the superiority of imperialism, the Asian countries have been filed with remorse. Armed with the Cold War theory, the West has divided the world into two, the free world and the Communist bloc. There were no rooms for mutual respects and peace in binary thinking. Their main goal was to completely destroy the other party. Judging the national liberation movements were for the expansion of the Communist camp, the United States made mistakes of overlooking the ethnic elements in the Chinese revolution and the

Vietnamese War. The cost of the mistakes was manifested by countless casualties and the destruction of life.

Since its reform and opening up, China has emerged as the world's second-largest economy. Today's China is a communist country by name only, and is ruled by authoritarian ways. China has an ambivalent attitude toward the international societies, that is, inferiority complex and a desire to be the best, the cooperative stance and crude nationalism. Such attitudes of China might have originated from the humiliation by imperialism in the 19th and 20th centuries. It is not clear which direction China will take. I would like to see a modest China, which is faithful to the basic values of human being and to the mutual prosperity.

Now let's turn to the North Korean issue. Even though Washington and Pyongyang have held summit meetings, nuclear issue is not easily resolved because they don't trust each other due to the long-standing hostility. Believing that time is on its side, Washington seems to think that Pyongyang will give in if the international sanctions continue. But Pyongyang has asked to Washington for bringing a new calculation of nuclear negotiation. Pyongyang said, otherwise it would no longer be bound by agreement with Washington. Meanwhile, as a way of facilitating the nuclear negotiation between Pyongyang and Washington, Seoul wants to implement inter-Korean projects including reconnection of railways and roads and individual tours to the North. Pyongyang thinks that it has been suffered bitterly throughout the history from the foreign powers such as China, Japan and the United States. Today, under a siege mentality, North Korea's primary goal is the survival of regime. The United States should not overlook the ethnic factors in the North's deterrence. As the old Korean proverb said, "a cornered mouse bites a cat." We should not push North Korea too far into a dead end.

World Theology and the Emergence of the Pacific Rim Culture

Dr. Cheryl Lau

Former Secretary of State of Nevada, USA

Good afternoon esteemed ladies and gentlemen. Thank you for being here for this session on World Theology and the Emergence of the Pacific Rim Culture.

What is world theology? It is the study of God and his relationship to the world. The Reverend Dr. Moon told us that world theology is knowing God to all world peoples. He implied that theology is the divine drama of the ages and is the answer to our deepest needs. It is the discipline that helps us to live and understand concepts such as life and love, and lead lives of obedience to the deities we follow or worship.

So, what do we learn? We learn about critical thinking, clear writing, problem solving and how to analyze social and historical trends. Dr. Moon says that the importance of theology helps us to hear and understand the scripture's message.

In World Theology, one is presented especially with the influence of Hinduism, Buddhism, Judaism, Christianity, and Islam, among others. Each religion is a particular expression of one in the common world of theology. Each religion is centrally concerned with the same basic attempt to define the meaning and purpose of human life and to comprehend a spiritual reality. Each is a culture-specific expression of a universal religious phenomenon and the differing conceptualizations of the spiritual. These religions can be understood as symbolic expressions of one spiritual reality which transcends the bonds of any one religious expression. These religions should be considered mutually complementary rather than contradictory. The world has tried to integrate the religions in a systematic manner in order to arrive at a common world theology.

It hasn't worked that well. The concept of a global theology has begun to move away from the classical "Atlantic" centrism. It appears that in some of the European and middle Eastern areas, a trend began whereas religious persons began to consider their own religions as more important or superior to other religions. Religio-centrism means religiously based sentiments of exclusiveness—beliefs that, for example, one should marry within one's own religion, work with members of one's own religion, and prefer members of one's own religion above others. These believers feel that their religion has a definite outlook on its own value in relation to that of other religions, and believers do not tolerate other religions.

Rabbi Hier from the Simon Wiesenthal Center in New York mentions that many Jews dare not wear their skull caps in certain areas of major cities in Europe for fear of an anti-Semitic attack. Unfortunately, such attacks have occurred very recently in North America. In December 2019, a pair of anti-Semitic terrorists attacked a kosher grocery store in Jersey City, NJ, killing 3 people. On December 28, the last night of Hanukkah, another attacker broke into the home of a rabbi in Monsey, NY and stabbed 5 people. Orthodox Jews in Brooklyn have been the targets of almost daily incidents of physical and verbal abuse in the past several months. Yet on the first day of 2020, some 90,000 Orthodox Jews gathered at New Jersey's MetLife Stadium for a celebration for the completion of the Talmud, the basis of Jewish law. For 90,000 people to be able to celebrate the Talmud, this would not have been imaginable in any country except Israel, where Jews originated, except in the United States.

In the Pacific Rim, there appears to be an absence of religio-centrism with a marked toleration of other religions and a mutual borrowing of influences.

But it would be a mistake to write off the "Atlantic" influence at this time. What will the trans-Atlantic relations with the U.S. feel like in a world focused on the Indo Pacific Rim? When America's urgent foreign policy worries involve smoothing over Japanese and Korean spats or facing down China in the Taiwan strait and South China Sea, just how relevant will Europe be?

The French say that they are a Pacific nation, because of Tahiti and some other outposts. Yet it takes more than a few islands to make one a serious factor in Pacific politics. Militarily, the Atlantic nations and NATO don't want to play a large role in the Indo-Pacific zone. The memories of colonialism are too strong, and many Pacific Asian countries see the slow-growth and high regulation European model as something to avoid.

Yet, as China looms larger, it appears that a new trans-Atlantic consensus is forming. Germany may vote to block Huawei from Germany's 5G rollout since it is believed that Chinese companies cannot be trusted with German data. Many Europeans sympathize with Hong Kong's democracy movements and are horrified by Beijing's treatment of the Tibetans and the Uighurs. During the Cold War, America's main focus was on Europe, but Japan and South Korea were important allies without whose support and counsel the Cold War would have been much harder to win.

If enough Europeans share U.S. concerns about China, the Western alliance will remain a vital force even as the world's political center of gravity shifts to the Pacific Rim.

The Pacific Rim countries have experienced major economic change and growth to become components of an economically integrated trade region and continue to gain strength in the global economy. These countries are seen as an engine of global development.

Reverend Dr. Moon recognized this trend and soon completed a circuit of the world where he studied all religions. He knew that Jesus was sent to save all people and when Dr. Moon toured the Pacific Rim region, he knew that the future of humankind was rooted in the Pacific Rim.

Why is that?

Since reflecting on the development of human civilization, Dr. Moon had made it his quest to determine what the principles of theological restoration were, and how civilization can bear fruit. He then determined that the future of humankind lies in the preservation of the Pacific Rim region, centering on the United States.

The Pacific Rim culture consists of the history, language, and art of the diverse nations and states along the Pacific Ocean. Those nations and states include Korea, Japan, China, Taiwan, the Philippines, Indonesia, Singapore, the Solomon Islands, Australia, New Zealand, Chile, Mexico, coastal western South America, the coastal western United States and Hawaii.

Reverend Dr. Moon visited Hawaii many times, North Korea in 1991 to help end the Cold War era, and knew that China and Russia were pursuing their interests in the small island nations of the Pacific region. Dr. Moon felt that only when peace and security are settled in the Pacific Rim can peace for all humankind be guaranteed. And he viewed the Hawaiian Islands as the center of the East and West and a melting pot of Pacific region peoples.

This is probably why Hawaii has the famous East West Center in Honolulu, which promotes cooperation among the peoples and nations of Asia, the Pacific, and the U.S. The Center helps to strengthen relations and understanding between the East and West.

I can see what Reverend Dr. Moon was referring to when he felt that Hawaii was the center between East and West theologies and cultures.

I was born in Hawaii. I grew up in a Chinese-American family. My parents taught my sisters and me about strong Asian family values. These values included harmony, benevolence, righteousness, courtesy, wisdom, honesty, and filial piety, alike many of your family values. The family is key to the Chinese civilization. Under Confucianism, the family is as important in value as that of a nation or world. Capable people would level up their family first, then they could lead the nation to prosperity. The Chinese family provides a sense of identity and a strong network of support. In Confucian thinking, the family contains the most important relationships for individuals, and forms the foundations of all Chinese social organizations.

Yet my sisters and I commingled these teachings with living in the United States and being American. We weren't taught the Chinese language though my parents were bilingual, because English was our main language. Yet, I understand Cantonese, a Chinese dialect, and I could always understand enough Cantonese if there was some juicy gossip that Mom and Dad were talking about. I was fortunate to win a scholarship from a Chinese-American social organization to pursue my college ambitions.

In Hawaii, my friends and classmates were of Chinese, Korea, Japanese, Hawaiian, Samoan, Filipino, and many other Pacific-Asian ancestries. When I attended Indiana University on the mainland, I initially had a little problem. When I had dates with my Caucasian classmates, I had a difficult time telling them apart because these great dates of

mine all looked the same to me. But I got better at it and now my husband is of German/Dutch ancestry. I can certainly tell him apart from others.

After college, I returned to Hawaii and was employed at the Hawaii Curriculum Center, an affiliate of the University of Hawaii. I brought with me my family values, the same as what I had learned at school and through Dr. Moon's teachings.

I now live in Nevada. I continued to use my family's values and the teachings from Dr. Moon, when I became a Deputy Attorney General, the Secretary of State of Nevada, and the General Counsel to the U.S. House of Representatives in Washington, D.C.

Reverend Dr. Moon chose to spend his final days in Nevada trying to pull the weight of American vision to face its Pacific horizons, the emerging future. As he strove to propel the American vision as he faced the Pacific Rim and hosted many summits and meetings to talk about this vision, he combined free speech with a safe space. He reconciled these two ideas that have recently come into conflict within academia. In his teaching which centered upon peace in the Pacific Rim, he gave us an intellectual intimacy which improves our judgment and makes us more humane. He gave us a safe enough space for free speech and civil disagreement. This model demonstrates what can spill over from these meetings into life.

And here we are in Seoul, South Korea, compliments of Reverend Dr. Moon, Dr. Hak Ja Han Moon, their family, and the Universal Peace Federation World Summit. Reverend Dr. Moon, in a 2007 speech in Hawaii, commented that God's providence has spread from the Atlantic area and the North American continent and has blossomed in the civilizations from South Korea to Hawaii and to the west, the Pacific Rim. He reiterated that we must pull together centering on God's ideal of peace.

We have been given a gift, a gift that reiterates that the future of humankind is rooted in the Pacific Rim. The role of all of us, America, and the UN is to support the Pacific Rim, thus bringing together the nations of the Pacific to preserve and defend that region.

We all have a responsibility to protect and save the Pacific Oceanic realm.

A Curious Scientist's Approach to Understanding Others as People

Dr. Joseph Terwilliger

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Hi, I'm Joe Terwilliger. I felt it a bit strange when I first got the request from Alexander Mansourov to speak on theology and Pacific Rim culture, since I'm a human biologist and I don't claim to know anything about theology, except what I've gleaned from these conferences. This is my second time attending and I've learned a lot by just being around everybody here.

As Alexander said, my work is mainly in human genetics. In this field we're really interested in studying the variation among human beings. What makes us different; what makes us the same? I work with human beings. When you want to study biology you cannot do experiments. Alexander, I'd like you and Cheryl to give me ten babies so I can put them in cages and feed them different foods to see what happens to them. We can't do that.

Instead we have to look for situations in the world or historical experience that have led to a kind of end, like an experiment you would want to do. When I see the world, see people, or work with different cultures and different populations, I try just to observe, learn, study, try to understand what makes people as different as they are; and then I try to figure out what's going on in terms of biology or in terms of other areas. I am a very curious person as a scientist; but in fact I don't know anything about international relations, politics, theology, or any of this. I just know that I'm curious and I see a question. I want to answer the question, I want to understand it.

I started my career doing a study; the first study of this type I did was in Venezuela, as Alexander mentioned. We found an interesting population of native people all living in one community, with 5,000 people in one family. I, like everyone here, love families. Families are also great for our research, because we want to study what makes families similar. Why are people in the same family more similar to each other? Are people in the same culture and ethnic group? What makes them the same or different? Those 5,000 people were all exposed to all kinds of nasty things in Venezuela. There are all kinds of pollution from the oil industry. They all have worms in their stomachs. All kinds of problems there. There's a lot of violence:

if somebody wants to kill someone he can rent a gun for an hour. He does what he has to do and then gives it back, so the same gun is used in every crime, and they never can find out who did it. It's not like on CSI, where they can trace the gun. Then one might conclude this is a terrible population with terrible health; but what we find is that if they live to the age of forty they live to be a hundred. Their brains look perfect. Their health is good. They have no cardiovascular disease, cancer, or anything else.

To me that poses a great question. Why is it that they live in such bad conditions yet are still so healthy? One answer was that, in this case, it might be the worms. We were appalled when we saw a defector who had run across the DMZ last year. They found worms in his stomach and, although that is horrible, do you remember in South Korea perhaps 20 years ago when everyone took pills for worms? It was common; there were everywhere in the human species. The immune system we have grew up together with the worms. Like an army, they had an enemy too, and humans lived in symbiosis. There was a stable relationship between the two. What happens if one removes the worms and the system attacks itself? Then a big uprising takes place.

Here is an interesting question that is only answerable if you can just look at it like this: We find some unusual thing in society that looks bad. Then you look at it closely, you realize our concepts of what's good or bad for health or anything else aren't always what you think they are.

When a question arises, I always want to look. We think this is something bad, but I want to go look at it and see if it is really bad for people. You look at it and you ask the question. You take advantage of what occurs by chance in nature and you inquire into it. This is how I studied.

I started studying Korean language in college. During my course I found a book on Koreans in Central Asia. I wondered, "Why are Koreans in Central Asia? How did they get there? Why are they so out of place? What are they doing in Kazakhstan with no end in sight?" I'd never heard of Kazakhstan. I was curious: here's an odd quirk of reality. This becomes a question I want to find the answer to: "Why are they there?" As a geneticist I thought, "Hmm... These two populations have the same genes yet they live in entirely different environments."

Here's how it happened: in northern Joseon in the 1800s there was a series of floods and famines. Not all calamities are due to oppressive regimes; nature plays a big role in the turn of events. They had a big problem long before the division of North and South was an issue, and they fled to Russia because there was plenty of land in the Russian Far East where they could cultivate the soil and grow crops. Then in 1937 Stalin deported the entire Korean population of the Russian Far East to Kazakhstan, taking them from their ancestral homes near the ocean to the farthest place on earth from the sea. The Soviets erased all the Korean culture in these people. Eventually their culture changed and their language was lost. It's similar to agriculture. When you study corn you grow the same breed in different soils with

different fertilizers and different crops, and watch what happens to them. That's how it's done in science.

I was fascinated by Korean history, particularly the sorrow of the fifty years (1904-1954) that led to Koreans being spread all over the world, isolated from each other in these widely separate places. It makes for a fascinating scientific experiment. No one would ever want to do that to people, but when it happened because of history you can go and ask the questions.

Well, what's the difference? How do genes and environment both contribute to who we are? They certainly do. So we asked the question. I looked at Koreans in Kazakhstan and in China, who until about year 2000 were mainly connected to North Korea and very little with South Korea. Now it's the opposite, but that changed very fast. There were these separate groups.

Another interesting group was the children of Swedish soldiers stationed at the DMZ. After the war some children were born, but they didn't fit well into South Korean society. So many of them were adopted internationally to Sweden. The program worked so well they started doing that with ethnically pure Korean children born to families suffering in poverty following the Korean War. Here you had a whole group of people who are completely Korean, but your parents are adoptive. It becomes an interesting question of how they are different and what makes them so.

I got very curious and wanted to use this to answer a question. I was working in China and Kazakhstan and met people from North Korea. They were nothing like the stereotype I had imagined. You may have read about North Korea and heard what it's like. You might get a concept of brainwashed people walking around in a certain way, all wanting to kill the world and destroy everybody. But when you meet them you find they're surprisingly friendly.

They said, "Hi, how are you?" very innocently, in Korean. They would say a phrase, "*sobaka da*" which pretty much describes it. They have a simple, naïve, child-like manner. I reflected, "This isn't at all what I expected."

Being a scientist, I'm curious, so I asked a question and talked to them. The more I talked to them and tried to understand them, without making any judgments, I learned a lot about what makes them tick, why and how they are different. It is a different society from what we live in.

I had my first chance to visit Kazakhstan in 2010 as a curious tourist. Again with an initial introduction, I thought I knew everything because I had read books about the place, but when I arrived I found nothing was like I expected. It was very different; but not in the way I supposed.

For me personally, if I just think of my own political views, I'm libertarian or conservative. I don't like being told what to do by anyone. I like to think freely; that's how I always imagined everything should be. The more freedom you have the better. North Korea is about as opposite from that as you can possibly get. That makes me curious. I'm fascinated by the

organism of society and how it functions. “How do people live in this society? Are they really different?”

I returned a couple of years later on my own, spending ten days touring North Korea. That's how I met Dr. Mansourov. I became more and more curious. Each time I thought I understood it, something else happened that I didn't quite understand. I'm no political expert, cultural expert, or politician. I have no government role, and as such I'm not threatening. I just go and talk with people, build bridges, and make connections. It was a fascinating, eye-opening experience.

I had the chance a couple of years after that to visit Young Gun in China. Again I worked with Chinese Koreans. There was a summer class on North Korean dialect and I was fascinated. I wanted to learn about this. A professor from North Korea taught Korean to foreigners, so I joined the class and just listened. As a scientist I am always thinking of my role. When I visit different countries and cultures and interact with people I try to think of it in different ways.

Did you see the TV show *Star Trek*? Captain Kirk said the prime directive is to not interfere in foreign civilizations but simply observe and learn from the experience. That was my approach. When I went to North Korea I had the chance to teach at Pyongyang University of Science and Technology. Most of the faculty are evangelical Christians from the USA of Korean descent who go there to teach science, business, and capitalism. They want to learn about capitalism, English, business, biology. I think, “That's great!” You teach them things they want to learn. We can expose people to us and learn about them. To me it was a fascinating opportunity to really get to know people and build bridges. You talk to them and begin to think about them. The more time I spent the more I realized that they're exactly the same as us, with the same concerns as everyone I know. I have a lot of friends now in the North and all they care about is, “What's going on with my children; the child's misbehaving at school; he didn't do his homework, I've got to punish him, he went behind the school and was caught smoking, he was drinking.” Like that.

It's the same as in America; it's not different. This is not the way North Korea is depicted. My people think they're all in cages running around, not living as normal people, but life is surprisingly normal. It's almost boring. There's not a lot to do. You're just with your family and friends. I've had a lot of really interesting experiences that have been very positive, as a result of dealing with people as people and just trying to learn.

Whenever I talk with experts in politics or anything else, they approach the problem with a model in their mind. “This is how they think and this is how we think.” They never reach a point of understanding the other because they go on thinking these guys are good and those guys are evil. We wear white hats and they wear black hats. People don't try to understand or talk to one another. But that's what I've always tried to do when I've been there.

I had a chance to go there with Dennis Rodman, organizing his trips and helping translate for him when he met with Chairman Kim. He was very friendly, open, and frank with us. We

treated him like one of the guys and he treated each of us like normal people. It wasn't anything like you might imagine. Just two people talking to each other. It is an interesting story.

Dennis' agent wrote a book about the trip, explaining how Dennis ended up going there. He said, "Well, he got a contract offer from *Vice* magazine asking if he would go to North Korea to play basketball with the Harlem Globetrotters. His agent said, "Sure," thinking, "K-pop and Psi. Wonderful." He had no idea there were two Koreas! He just went there with the attitude, "Yeah, sure. God wants to meet me. Sure, I'll meet him." When he was there at the game I translated for him and Kim Jong-un. Dennis asked Kim, "Can I meet Psi?" and Kim Jong-un replied, "I would like to meet him. Can you help me?"

The point is, when you treat people as people, they treat you as people. You talk to him as a normal person, he talks to you like that, and you build a relationship that you can go forward from. That's how it is with all human beings. That's what this conference is about from what I see. People here disagree about more fundamental things than Kim Jong-un and Deng Xiaoping disagree about. Religion is an intimately personal thing; it's what you believe. It's the centerpiece of one's life and ideology. People here are Muslims, Jews, Christians, everything. They disagree about things far more significant, yet they come here because they find a commonality between them, a common shared experience. Isn't that kind of what's missing in international relations?

We know what we want: we don't want North Korea to have nuclear weapons. Well, if you were Kim Jong-un, what would you want? He told Dennis and me personally, "You Americans made a deal with Qaddafi from Libya. You said, 'If you get rid of your nuclear weapons we'll give you a guarantee of security.' Then you killed Qaddafi." He continued, "You made Saddam Hussein allow weapons inspectors into his country. The weapons inspectors said there were no weapons of mass destruction there. You didn't believe the weapons inspectors and you killed Saddam Hussein. Why would I trust the security guarantee when America is putting forth an active policy saying, 'We don't have any intention to invade. We will always honor our treaties. We will not make first use of nuclear weapons,' while off the table they say, 'We want to change the regime.'" That's no secret — no one's pretending otherwise. He said, "I'm not that stupid. I don't want to blow anybody up. I don't want to do anything like that, but what should I do?"

The point is that those two worldviews contrast diametrically, and neither one is trying to understand the other guy's perspective as people are doing in this room and at this conference. You're trying to understand the other guy and get along with him. Reverend Moon went to North Korea to talk to Kim Il-sung, and also met with Gorbachev. He didn't like what they believed in, but he talked with them. Why do you talk with someone? You can find common ground, you can build a bridge, you can go somewhere, build a hotel, start a car company in the North. Isn't that a way to start interacting with people so they don't see you as the bad guy? Students talk to me openly about things I'm surprised they would be open about. You

build trust through interaction. You show people that you're not trying to kill them; you're just like they are.

Dennis Rodman went to North Korea with a team of African-Americans to play basketball with the North Korean team. The first half was us versus North Korea. The second half, each team had half North Koreans and half Americans playing together. The basketball was much more interesting because the North Koreans were short but fast and they could really shoot. The Americans were tall and slow, old and fat, but they were big. It was a boring game when they played against each other, but when they played together it was wonderful because they each contributed to it. The images we all wish came out to the world from that game were these African-American guys and these North Koreans arm-in-arm playing a game and cheering for each other. To me that's what it's about.

You've got to start somewhere. I'm just a scientist. I go to different countries. I was in Libya working with Libyans last week because my university and University of Tripoli were trying to start academic collaboration so we can help them recover their academic culture after the civil war they're caught up in. The president of University of Tripoli was an old colleague of mine as a graduate student. We worked together to find the gene for lactose intolerance. We build these connections and stay in touch. We try to use that to do something positive there.

You can work in any of these countries. You can build a relationship with people only if you're a private person, it seems. I'm not a threat. I'm not government, I have no issues. I'm not judging people. I'm not telling them how to live. I'm just listening to them. I think that goes along with the theological way of viewing the world. The religious way is to embrace other people, love your enemies; talk to them, treat them with respect, and seek some way to get along.

This is just the view of a dumb scientist, a tuba player who knows little about theology, who knows nothing about foreign relations or diplomacy. I want nothing to do with government; I don't want to be part of it. I don't like being there if they tell me what to do. I want to get along with people. If they are someone like Kim Jong-un it can be a good thing. You build a friendship and show him there are Americans he can trust. Likewise, we're hoping someone picks up the ball from Dennis. He can catch the rebound, run with it, and score something.

After we met Kim Jong-il in 2013 we returned to the U.S. No one in the government knew we were going because we kept it quiet. We just went to play basketball. The administration was unhappy, and no one wanted anything to do with Dennis. They disowned him, and he suffered enormous consequences for going there even though he didn't understand. Because the guy likes me, we started a conversation. I started by explaining how I came. He likes me so maybe we can do something, build on that, and open the door. There's only one person who called us wanting a conversation, and that was Donald Trump. Dennis Rodman and Donald Trump are old friends because Dennis was on his TV show "Celebrity Apprentice" during the '80s and '90s. He called Dennis to his office and said, "What you did is wonderful.

Anything you do to start a conversation with these people and talk to them is better than shooting at them.”

That's President Trump. I think this is something to be said for him. He honestly wants to solve the problem. I don't think he or anyone knows how, but at least steps are being made to get over it and build a peaceful future. I'm optimistic. Things haven't gone as well as we hoped. For me it's tragic that I'm no longer allowed to go there. We now have travel bans like the USSR had, preventing us from leaving. Let's hope that is eventually lifted and something can be done before it's too late. Let's go to meet our counterparts and reach out to them in any way possible.

Thank you for your time and for listening to an idiot who knows nothing about theology!

True Dialogue in an Era of Synthetic Conversation: Religious Knowledge and Artificial Intelligence

Dr. Ben Pazi

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Abstract

"From time to time, I seem to hear a question echoing out of the depth of stillness. But he who asks it does not know that he is asking it and he to whom the question is addressed is not aware that he is being questioned. It is the question that the world of today, in utter unawareness, puts to religion. This is the question: "Are you, perhaps, the power that can help me? Can you teach me to believe?" (Martin Buber, "The Silent Question", *On Judaism*, p. 202)

In this paper I would like to re-evaluate the question of ethics and humanity through Buber's "the essence of human being". My aim is to think about the humanity of human being in the time of Artificial Intelligence, and the possibility of truthful conversation – true dialogue – at this time, that I call here: an Era of Synthetic Conversation.

In more than one aspect, this kind of question and this ethical context, may rephrase the role of Religion in general, and Judaism in particular, facing the problems of technology of our time. Let me say, that for Buber, facing the problem of humanity in modernity, was his main task in all of his philosophy: to establish the way of "believing humanism."

In this paper, I would like to evaluate three domains of discussions: The first discussion is "the human crisis" or "the crisis of human beings." What will happen to human beings in the age of artificial intelligence? Is there a way to remain human – an authentic human being – in an era in which most of our life is surrounded by a synthetic environment.

The second discussion is the question and the option to make a true dialogue in our time. Is it possible having a direct and sincere conversation between people in our time – the era of screens, cellular phones, and electronic surroundings and algorithms that can guess what we are going to say.

And the third discussion is the ethical question of "the moral subject". Whether and how we should relate to the new intelligence beings – artificial beings – as an ethical subject? Do we have to think about robots as ethical subjects? Of course, there is a legal question concerning these new developments, but I want to focus on the basis: the ethical mode of thinking.

True Dialogue in an Era of Synthetic Conversation: Religious Knowledge and Artificial Intelligence

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Thank you very much. First of all, I wish to thank you for this wonderful conference and wonderful environment, and for inviting me to be part of it. I know people will talk about my coming here. I know this is true for me and of course for the organizers of these sessions and the academic part of this conference. Special thanks to the office of Frank Kaufmann for organizing this, and to Dr. Louise Hirschfeld for making it possible for me to arrive here. As you can tell, I'm not an expert in Rev. Moon's theology — I'm just an apprentice!

My title today is “True Dialogue in an Era of Synthetic Conversation.” I want to talk about a story from the perspective of Martin Buber [the Austrian-Jewish “philosopher of dialogue” (1878-1965)].

Recently people have been thinking about spiritual knowledge and how it interfaces with artificial intelligence. From time to time I seem to hear a question echoing out of the depth of stillness. But the one asks it does not know that he is asking it, and he to whom the question is addressed is not aware that he is being questioned either. It is the question that the world of today in self-unawareness poses to religion. This is the question: “How do we remain human in circumstances where dehumanizing technology and social systems threaten our very humanity?” Perhaps the Power that created us can help me — can you? Religion teaches me to believe my humanity is a sacrosanct realm. For Martin Buber this is “the silent question” which he wrote right after the Second World War.

There is a certain Scriptural passage from Genesis we constantly refer to. This is very famous, of course: “In the image of God created He *them*...” Note that the Torah does not say “him.” In this paper I would like to reevaluate the question of ethics and humanity through Buber's “The essence of human being.” My aim is to ponder the humanity of human being in this age of artificial intelligence. I wish to consider the possibility of authentic conversation that we can truly call “dialogue” at this present time which I call “the era of synthetic conversation.”

In more than one aspect these kinds of questions and this ethical context may rephrase the world of religion in general and Judaism in particular, as we confront the problems of technology in our time. For Buber, dealing with the problem of humanity in modernity was

the essence of his calling. His main task in all his philosophy was to establish the way which he called “*A Believing Humanism*.” As a Jewish thinker and Zionist, he pointed out in his works that the problematic task of Zionism was not political at all, but rather to construct a way of Hebrew humanism.

I would like to draw your attention to three domains of discussions, crucial and important, each of which requires us to think deeply about religion from a religious and an ethical perspective. The first discussion is the crisis of human being, which requires us to ask ourselves about the meaning of humanity in time of crisis: “What will happen to men in the age of artificial intelligence? Is there a way to remain human, an authentic human being, in an era when most of our life is surrounded by such a mechanized and electronically empowered environment?”

The second discussion touches the question and the options to continue dialogue in our time: “Is it possible to have direct and sincere conversation between people in our time?” — a time when there are screens, cellular phones, electronic surroundings, and algorithms that can guess what we are going to say.

The third topic for discussion is the ethical one — what I call the moral subject from a philosophical perspective: “Whether and how we should relate to the new artificially intelligent beings?” Ought we relate to them as ethical subjects? For example, do we have to regard robots as moral subjects? Of course, there are legal questions concerning these new developments, but I wish to focus on the basis, the ethical mode of thinking.

There are three domains of questions. The first is between one and himself, the second is between one and the other, and the third one is between one and the AI. Let’s say I am the robot. By looking at your faces I can tell that the third one is not very familiar to you, but it’s important from an ethical point of view. Of course, these discussions are not separate but related to one another. In any case I would like to distinguish between these three topics.

The first one comes from the midst of crisis. Here I want to quote from Buber, from immediately after the Second World War. For the past three decades we have felt that we are living in the initial phases of the greatest crisis the world has ever known. It grows clear to us that the tremendous events of recent years can be understood only as symptoms of this crisis. It is not merely a crisis brought about by one economic and social system being suppressed by another more or less ready to take its place; rather, all world systems are freshly, newly and equally involved in this crisis. The question, thus, is nothing less than the very existence of all people in the world.

Before I launch into this discussion, may I say that for Buber politics concerns not merely problems the public is talking about; this is just the result of the problem. The crisis is the human being. What we see happening in geopolitics, politics, and between religions is just the result of human crisis. The cause is not political or something. Buber proclaims in precise wording and difficult language about the meaning of this crisis, the crisis of human being in

our world during the 20th century. This was the period of atomic bombs, genocide, and the Holocaust.

But this was not the first time for us to talk about human crisis. It began with the opening of the 20th century. Here I may drop a problematic note: “The basis for him was the desire for the one, the passion for unifying existence, the search for what is common to the whole.” But this is not enough: we must start by asking ourselves not about “unifying”, “unity”, “whole”, “globalization”; rather, we have to deeply inquire, “What is the meaning of these words?” In well articulated terms, Buber is worried for the sake of the humanity of human being. He analyzes the problem of humanity, and his deep understanding of this crisis is based on alienation between people, between one another, between man and man, between humans and nature, and between human beings and divine entities.

According to Buber, the greatest difficulty of the modern age is this crisis — the alienation of human being. Generally, we think of “alienation” in terms of one in front of the other person; but there is also alienation between one and himself. At the fringes of alienation there is a distance between people. It’s as if a tree has fallen smack in the most intimate relations between people in our age of alienation. A human being cannot be secure and safe in his life, and the result of such feelings is that he could lose his ability to live in the deeper sense of the word “living.”

In Buber’s magnum opus [great work] *Zwei Glaubensweisen* [*Two Ways of Faith*], to interpret phrases clearly, there is a change in the meaning of “subjectivity” in our time hinging on the meaning of “subjectivity of the subject.” We distinguish two kinds of subjectivity, according to which kind of “I” we put forward when one man relates to an object and when one man relates to a subject.

For Buber the fundamental distinction is that of relation in terms of distance and relations in terms of motive. He called it “I and Thou,” or in German “ich und du.” In man-to-man relations, the terminology is twofold reflecting our twofold attitude. The attitude of a person is twofold corresponding to the twofold nature of the primary word: this the combination “I and Thou”; the other primary combination is “I and it.” Without changing the primary word, one of the words “he” or “she” can be replaced with “it.” You can relate to the other person as an object or a need, even in polite exchange. Between humans and robots or AI, which we have not analyzed sufficiently, probably the important point is the meaning of “I” according to whether you relate to the other as “I and thou” or “I and it.”

We must read this section carefully, because the meaning of “I” has changed. The question is “How will I relate to the other person? Do I relate to nature as I relate to the divine?” We must ask the question, “What will build up the relation to the other as a person?” Or rather we should ask ourselves, “What is the meaning of subjectivity in dealing with AI?” Now there are technical mechanisms, artificial intelligence, and animated creatures. According to Buber the whole meaning of subjectivity completely changes based on the meaning of “I love my self” in this time of artificial intelligence. According to this fundamental distinction there is no option for genuine dialogue with AI; instead I have to observe myself to seek any option

for “I and you” dialogue between people in the first place, because of what has happened to the subject in this age of new technology.

Now we arrive at the second point for discussion: “Is there an option for dialogue?” I know that we are in a conference where dialogue is most important, so I question the meaning of such dialogue. You already know the technique of wonderful rhetorical manipulation and professional speaking. There are different ways to describe formal-style conversation. We cannot relate to the other person in real debate dialogue if we commit a faux pas.

So as we encounter the new technology in the age of AI, when you engage in a chat with virtual assistants, you don't know if there is a human assistant behind this set, or it is just a virtual assistant that you're talking with. This is just one example where we must question whether true, authentic dialogue is occurring.

I wish to return to the question of whether we can hold dialogue in our age, or truly talk about things. It's an urgent question we must deal with. The reason for the absence of mature dialogue between people may be consumer values and the lack of humanity in the classical humanistic sense. In a simple face-to-face meeting, there is confusion as to what constitutes genuine conversation. Is there any option to carry on real conversation?

Let us look at conversation in terms of how we would describe it. Let's say we are discussing the meaning of food. We enter dialogue and carry on a wide range of different conversations, where the rule is that we are not to hold real dialogue, but only conversation technically conducted so as to look like conversation, but something is missing. The grand rhetoric is just one way to construct a dialogue that is false.

Usually people are preoccupied with shielding themselves from the view of the other, avoiding genuine dialogue. We call it conversation, and while it is presented in the semblance of conversation, each person is constantly asking himself, “Am I really loved by this other person?” all the while taking into account all the context and details of the conversation. Sometimes it's more complicated when this man responds to the other person, taking all this into account along the way. But after all, his inward question is answered when he is accepted by the other person.

For Buber, in true dialogue one must open himself to the other person, staying in a mode of being exposed before the other or taking the role of being exposed. We suppose we are conversing between “I and the other.” This is the basic assumption in normal dialogue where you share with another. This becomes impossible if one claims the role of parent; each is a person; only in that mode can we carry on authentic dialogue with sincerity.

Buber holds that people no longer engage in authentic dialogue with one another. This one of the most poignant symptoms of the pathology of our era. I expect this will emerge as that which makes the most urgent demand of us. Regardless of the environment, all people at this time can engage in genuine dialogue with each other, where each partner takes the position to confirm their counterpart or even opponent as an existential other.

Now we move to the third question. It's a bit strange in this setting, yet I wish to address this very important and perhaps most crucial question, which I only raise now. It concerns the question of how we regard artificial creatures and AI. Do we grant them status as moral beings with ethical imperative and moral obligation? In culture and philosophy this must apply to any entity with whom we relate. Thus the question: "In what relation are we committed to AI and artificial devices? What are our ethical obligations to this new type of creation, and what are theirs, in an age when there are intelligent beings not possessing the qualification of being fully human?"

We can regard AI as an extension of human will, and use Husserl's phenomenological method to analyze this. As armor is an extension of the skin, AI is an extension of the mind. We must ask, "When human beings like you and me possess new technology in our own bodies, what will be the status and significance of such extensions?"

I will make a small detour before undertaking to answer the question, to add a broader perspective for the sake of our discussion, mobilizing the tools and ideas we need to evaluate the issue.

"What is the place of religious concepts in this context?" Perhaps I need to articulate this question in terms of the difference in the connection between three domains — ethics, religion, and technology.

I began my talk posing the question about the world. Buddhism is a religion with the facility to assist humanity. Religious thought can teach us to believe in human being in this age of artificial intelligence. Buber's most important task in his life was to address the question of humanity. To treat the human being in this time of crisis of humanity, we must rebuild the lexicon. "What is the meaning of being human in our life?"

We'll take the approach of the positive discourses of humanism, religion, and philosophy. At the end of each person's life this question will be asked. What can I present to characterize my own basic view and concept? It can only be the concept of the believing humanist, Martin Buber. He describes himself in 1963, two years before his death, upon receiving the Erasmus prize in Amsterdam. To summarize his entire concept of dialogue, let us take a look at the Buber's concept of believing humanism? I maintain that Buber brings his course of creative endeavor in full circle since he first took up the quest of "Biblical humanism" over 60 years earlier. Later it was called "Hebrew humanism" and since the end of life we began calling it "believing humanism."

Now I would like to approach my conclusion. Perhaps rather than a conclusion I wish to present these two kinds of humanism from the history of attempts to define the meaning of "to be human." What is the medical meaning of being human? Such an essay can best be achieved through literary activity, identifying what constitutes the classic humanist conception. This humanist culture has reshaped the concept of humanism and has planted our educational system in the soil of humanism.

Buber said, “Humanism is expressed in the face of a human being.” Once AI appears, the meaning of “human” is up for debate. The face is rhetorically seductive, but this calls for reflection. We envision potentially problematic implications of this idea, and wonder how this concept applies to AI. The face is where a man becomes human. The face is not merely a biological feature to be classified as “human”; the face conveys one's title as a human being.

The significance of this attitude is that man is required to recognize and take into account that the achievements of humanism are not guaranteed; we may find ourselves sliding into a zone of inhumanity. If at such a time the danger looms that humanity will slip into the zone of inhumanity, then we must return by resorting to an earlier age when the human element of humanity was clear, in order to find the original driving force within myself. Through humanism we endeavor to renew the concept of humanity while in the shadow of the threat of losing it. Talking about humanism is not merely innocent and pretty speech as we are often tempted to think. Rather it stands in the looming shadow of the loss and the absence of humanism, and even emerges out of the struggle with its actual absence. We achieve the goal of humanism by talking with real persons! Thank you.

[Music]

Think back on the musician we listened to. This is not merely returning to the past; it serves to generate an image and normative value of the human *qua* human. The foregoing discussion enables us to understand the meaning of our project. Buber points us back to the Bible. The reason for this course is that romantic experiment of returning to the God of the glorious past, returning to the Jewish land and state. The Jewish people recognize this attempt to study the Bible. People are either friendly to the national historical perspective or view the issue in terms of ethics and identity with the normative values of the Bible. The essence of the biblical ethic is dialogue. With these words I end my talk. We stand at risk of losing our humanity in the age of AI. If the risk was great in the age of technology, then it becomes much riskier in the age of thought algorithms. With the ability that artificial intelligence possesses, with what can your “I” be preserved? Humanism and humanity in a non-human era is the special status which the Bible confers. The Bible calls us to ethical human being, and for man, both individual and public, illimitable humanism is internal to the life of dialogue. Thank you!

Comment on Theology Related to the "Pacific Rim Culture"

Dr. Soo Min Kim

Emeritus Professor, Sun Moon University, Korea

It is my honor to have an opportunity to comment at a wonderful international conference. And I would like to express my deep appreciation for the organizers of this providential, memorable occasion. I also want to extend my gratitude to Dr. Lau and Dr. Mansourov for the excellent presentations with the insightful remarks. As a commentator, I would like to simply add a few words rather than raising questions to fulfill my assigned mission.

Life is always unstable and could be easily put in danger. In order to overcome such a situation, human being needs an identity and a personal protection. Therefore human being tries to verify that who I am and where I belong to. The concept of identity, however, is closely related with the consciousness of boundary which distinguishes me from the other people who have different characteristics. When anxiety increase in our lives, we tends to point out “the strangers or something unfamiliar” with an evil desire. These tendencies could be confirmed in religious history throughout the world. Some religious persons have believed that their own religions were superior to others with the conceit of monopolizing the truth. It has led to the exclusion of other beliefs as a result.

In this respect, Rev. Moon has proposed to propel for finding the common grounds through the reconciliation among religions by not only holding interreligious conferences but also providing numerous supports for interfaith activities. Rev. Moon has taught us that religions are like hiking trails leading to the top of a mountain. As there are several trail to reach summit, religions play a major role in guiding people to God. As Dr. Lau mentioned, religions should be considered mutually complimentary rather than contradictory, thus we might be able to find the common world theology where we can enjoy the universal values. Therefore the appropriate prescriptions for dealing with “the strangers or something unfamiliar” should be an open-minded attitude not an exclusive one. We need to prepare for mature encounter with the unfamiliar cultures. Nowadays, interdependence is affecting the various characteristics and norms of different cultures, and even if the changes in the norms of cultures are slow but slowly changing. To connect culture with culture, material resources alone is not enough. We need to prepare trust-building through the communication and dialogue. Rev. Moon’s teachings are meaningful in this regards.

Before the emergence of Asia-Pacific era, Western cultures have dominated world superiority with the economic, technological advancement and military superiority. But these

days are coming to an end. The rise of China, Japan, and South Korea is remarkable. The combined GDP of the three countries accounts for 24% of the entire world. The era of Asia-Pacific has begun.

While the West enjoys the superiority of imperialism, the Asian countries have been filled with remorse. Armed with the Cold War theory, the West has divided the world into two, the free world and the Communist bloc. There were no rooms for mutual respects and peace in binary thinking. Their main goal was to completely destroy the other party. Judging the national liberation movements were for the expansion of the Communist camp, the United States made mistakes of overlooking the ethnic elements in the Chinese revolution and the Vietnamese War. The cost of the mistakes was manifested by countless casualties and the destruction of life.

Since its reform and opening up, China has emerged as the world's second-largest economy. Today's China is a communist country by name only, and is ruled by authoritarian ways. China has an ambivalent attitude toward the international societies, that is, inferiority complex and a desire to be the best, the cooperative stance and crude nationalism. Such attitudes of China might have originated from the humiliation by imperialism in the 19th and 20th centuries. It is not clear which direction China will take. I would like to see a modest China, which is faithful to the basic values of human being and to the mutual prosperity.

Now let's turn to the North Korean issue. Even though Washington and Pyongyang have held summit meetings, nuclear issue is not easily resolved because they don't trust each other due to the long-standing hostility. Believing that time is on its side, Washington seems to think that Pyongyang will give in if the international sanctions continue. But Pyongyang has asked to Washington for bringing a new calculation of nuclear negotiation. Pyongyang said, otherwise it would no longer be bound by agreement with Washington. Meanwhile, as a way of facilitating the nuclear negotiation between Pyongyang and Washington, Seoul wants to implement inter-Korean projects including reconnection of railways and roads and individual tours to the North. Pyongyang thinks that it has been suffered bitterly throughout the history from the foreign powers such as China, Japan and the United States. Today, under a siege mentality, North Korea's primary goal is the survival of regime. The United States should not overlook the ethnic factors in the North's deterrence. As the old Korean proverb said, "a cornered mouse bites a cat." We should not push North Korea too far into a dead end.



2020 World Peace Academic Conference

Section 4

**The Role of the University in
the Next 100 Years**



Aaron Benavot

Professor, University at Albany-SUNY and
Former Director, UNESCO's Global Education Monitoring Report

Outline of presentation

- I. The challenge: navigating the contradictions of higher education to promote peace and global citizenship
- II. Traditional and emergent roles of the higher education sector
- III. Global patterns in higher education
- IV. The 2030 Agenda for Sustainable Development: Prioritizing and monitoring peace education and global citizenship education
- V. Linking higher education to education for Peace and Global Citizenship
- VI. Concluding reflections

Part I

The challenge:

How to navigate the contradictions of higher education in order to promote peace and global citizenship?

The argument and the challenge

Background: changing bodies of evidence and policy discourse re HE

- For decades investments in higher education were considered problematic given accumulating evidence of their low rates of social and economic return, especially in relation to other levels of schooling.
- Establishing and expanding higher education institutions, especially in a developing context where public resources are scarce, was understood to favor the privileged and exacerbate social and economic inequalities.
- This body of evidence led international organizations (World Bank, OECD, EU, UNESCO and many development partners) to prioritize access to basic education (primary and lower secondary education) and, to a lesser extent, technical-vocational training, rather than higher education.
- On the other hand, higher education was considered a pillar of human rights in international conventions, charters and covenants, beginning with the Universal Declaration of Human Rights (1948). In such international agreements higher education was meant to be equally accessible to all -- irrespective of gender, culture and socio-economic background -- on the basis of merit.

The argument and the challenge (2)

- Meanwhile, enrollments in higher education grew exponentially, especially in middle income countries, partly due to more young people completing secondary education and demanding higher qualifications and partly due to the founding of private HEIs.
- Neoliberal economists argued that the shift to knowledge-based economies meant that countries needed to educate and train skilled workers who could access, process, generate and transmit information rapidly across the globe.
- Universities, it was claimed, had a crucial role in transforming resource poor economies and low skilled labor markets into dynamic, 'information-rich' economies, potentially leapfrogging conventional development stages.
- Universities would teach workers to utilize knowledge for increased productivity and produce skilled workers needed for sustained economic growth.

The argument and the challenge (3)

- The presumed positive association between the expansion of HE and economic development was far from certain and often context specific.
- Not all regimes shared the tendency of universities and their faculty to foster academic freedom and more open and democratic societies by educating young leaders through open debate, independent and critical thinking and expressions of opposition to the status quo.
- Governments often mobilized the leaders of HEIs for political purposes and advantages and to solidify their power and authority.
- In some contexts corruption in admission standards, program selection, grading procedures and degree acquisition benefitted the children of privileged political classes and ethnic groups.
- Despite these and other contradictory forces, a newfound policy interest in HE at the global level emerged.
- Increasingly, both basic and higher education came to be seen as key drivers of transformative social, political and environmental change. This is especially true in the new 2030 Agenda for Sustainable Development.

How can higher education overcome the many contradictions to promote peace and global citizenship?

- From this brief background, HE contains multiple contradictions that are not easily addressed.
- HE is viewed as both potent positive force for economic development and sustainability and as a mechanism that exacerbates social and economic inequalities.
- Almost all HEIs legitimate wasteful consumption patterns and contribute to a large ecological footprint even while establishing programs on sustainability and promoting green lifestyles and recycling.
- HE can empower those hailing from marginalized groups while concurrently strengthening the status of the wealthy and the authority of those in power.
- HE can articulate visions of a society that empowers and gives voice to many while squashing dissent and controlling the flow of knowledge.

The challenge then is quite clear:

How can and should policy makers and university leaders address these contradictions? How can HE effectively navigate these contradictions in order to strengthen the positive impacts of HE, especially in advancing peace, reducing conflict and promoting global citizenship?

Part II

Traditional and emergent roles of higher education sector

Traditional and Emergent roles of Higher education

Traditional roles

- **Socialization and character building of elites:** provide a structured environment for acquiring knowledge, attitudes, transversal (soft) skills and broad worldviews for leadership roles; alter patterns of behavior (e.g. voting, recycling, learning styles, consumption); promote political loyalty and sense of service; etc.
- **Allocation:** Placing HE graduates in higher status jobs and labor market positions; enabling individuals to acquire greater human capital - knowledge, work skills and training - for lifetime employment and income
- **Research and development:** Discovering new truths and scientific knowledge; testing hypotheses and exploring non-conventional thinking; developing new applications of existing knowledge
- **Legitimizing** new fields of inquiry, professional communities of practice

Emergent roles

- Promoting public-private partnerships; serving as driver for local and regional economic development; fostering technological innovation as well as creative solutions to pressing societal problems
- Serving as a source of lifelong and life-wide learning

Part III

Global patterns in higher education

(Select information on access, completion, diversification, privatization, equity and inequality in higher education)

Increasing size and concentration of global higher education sector

Massive increase in size of global higher education sector

Globally **223 million youth and adults were enrolled in tertiary education institutions in 2018**, whereas 133 million were enrolled in 2004. This represents an almost 70% increase since 2004.

Only 3% of global enrollments are in low-income countries*

There is a concentration of global enrollments in the “big ten” higher education systems--**China, India, USA, Russian Federation, Brazil, Indonesia, Japan, Iran, Turkey, and Republic of Korea**. These 10 systems comprise almost 60 percent of global higher education enrollments (58.3%).

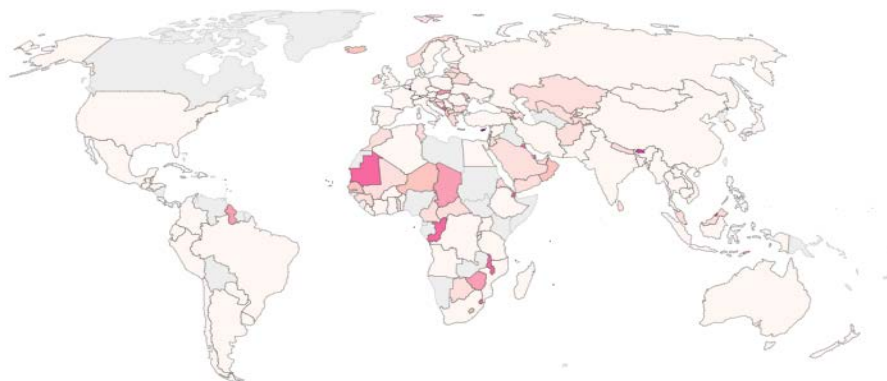
*74% in Middle-income and 23% in High-income countries

In many low and middle income countries, students are studying abroad

Share of students studying abroad, 2013

Number of students from a given country studying abroad as a percentage of the total tertiary enrollment in that country.

Our World
in Data



Source: World Bank

CC BY

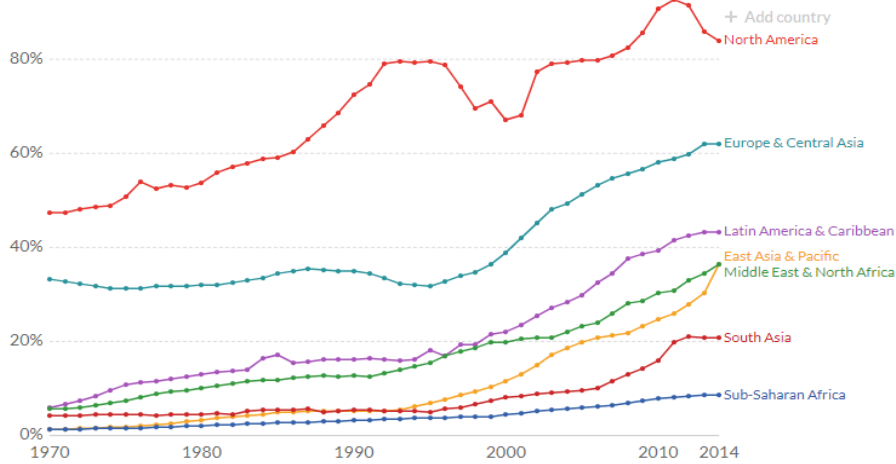
1998 2013 CHART MAP DATA SOURCES

Regional growth in HE gross enrollment ratios, 1970-2014

Gross enrollment ratio in tertiary education

Total enrollment in tertiary education, regardless of age, expressed as a percentage of the total population of the five-year age group following on from secondary school leaving.

Our World in Data



Source: World Bank

CC BY

1970 2014

CHART

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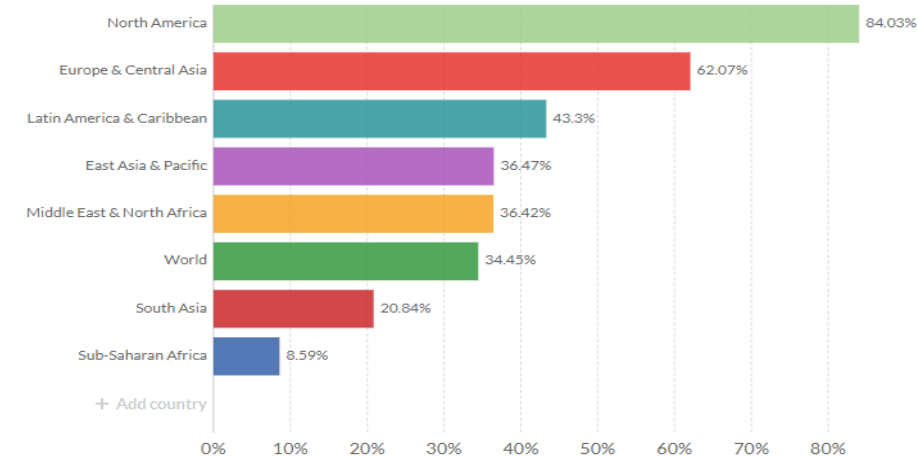
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Regional differences in gross enrollment ratios in HE, 2014

Gross enrollment ratio in tertiary education, 2014

Total enrollment in tertiary education, regardless of age, expressed as a percentage of the total population of the five-year age group following on from secondary school leaving.

Our World in Data



Source: World Bank

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1970 2014

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Private share of HE enrollments, globally and regionally, 2010

The private share of higher education enrollments has increased in recent decades. Globally, in 2010, **one-third of all higher education enrollments were in private HEIs**

	Private % (2010)	Higher Education enrollments in 000s
Global	32.9	172,546
Latin America and Caribbean	48.8	21,789
Asia	42.1	76,568
USA	27.5	20,427
Sub-Saharan Africa	17.8	5,218
Arab States	17.4	8,202
Europe	14.9	37,177
Canada, Australia, New Zealand	10.1	3,162

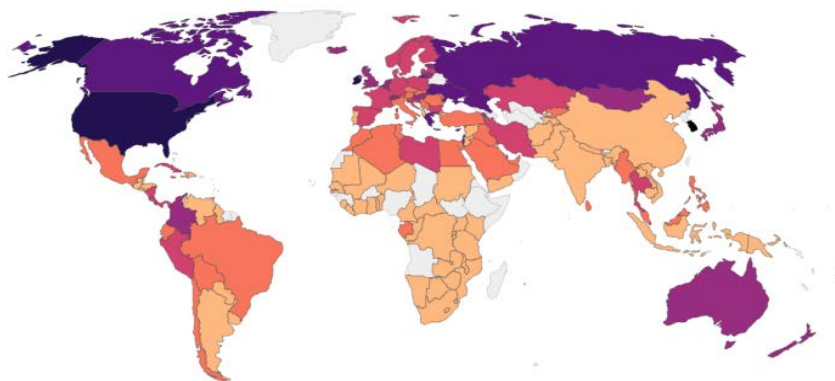
“The several largest country systems [China, India, USA and Brazil] account for much of the private enrollment [48%] but, simultaneously, private sectors now exist in all but a few systems; a stunning 97.6% of the world’s present enrollment is in systems with dual-sector provision. Societies no longer rely exclusively on public provision [of higher education].” (Daniel Levy, 2018, *Higher Education*)

Completion of tertiary education among adult population (15+), 2010

Share of the population with completed tertiary education, 2010

The share refers to the population 15 years and older.

Our World
in Data



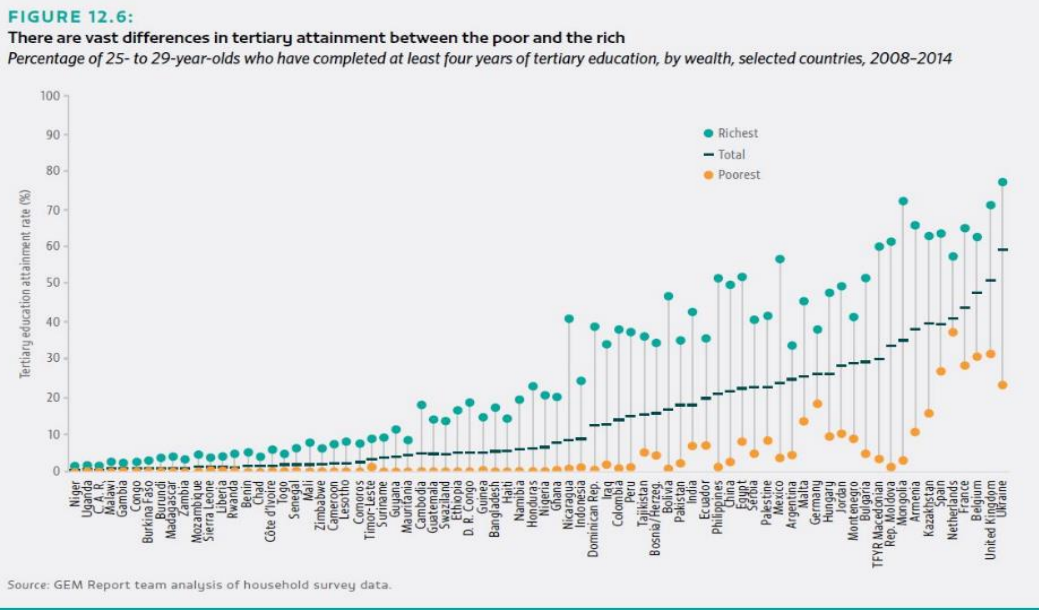
No data 0% 5% 10% 15% 20% 25% 30% 35%

Source: World Bank

CC BY

1970 2010 CHART MAP DATA SOURCES

Inequality: Wealth differences in tertiary completion rates among 25-29 year olds, 2008-14



The diversity of tertiary provision

Higher education institutions vary widely in countries in terms of size, cost, selectivity, course content, program/degree offerings, instructional modalities, research/teaching orientation, reputation, governance and quality.



Type of Higher Education institutions

Distribution of tertiary enrollments by type of higher education institution, globally and by region, 2017

	Short cycle institutions (ISCED 5)	BA degree conferring institutions (ISCED 6)	MA/MSc and PhD conferring institutions (ISCED 7 & 8)
Global	20	68	12
Sub-Saharan Africa	23	68	9
Northern Africa Western Asia	18	72	10
Central and Southern Asia	3	83	14
Eastern and Southeastern Asia	32	61	7
Oceania	31	53	16
Latin America and Caribbean	12	82	6
North America/Europe	22	56	22

Source: UNESCO Institute for Statistics as found in 2019 Global Education Monitoring Report

Funding higher education

Initial investments in higher education in countries with very small rates of participation are expensive.

- On average, countries spend around two-thirds more per student at the tertiary level than at the primary level.
- In the poorest countries, households' share of total education spending was almost triple that in the richest countries.
- Aid to higher education often does not reach the recipient country, but is used for scholarships to attend HEIs in the donor countries.



Part IV

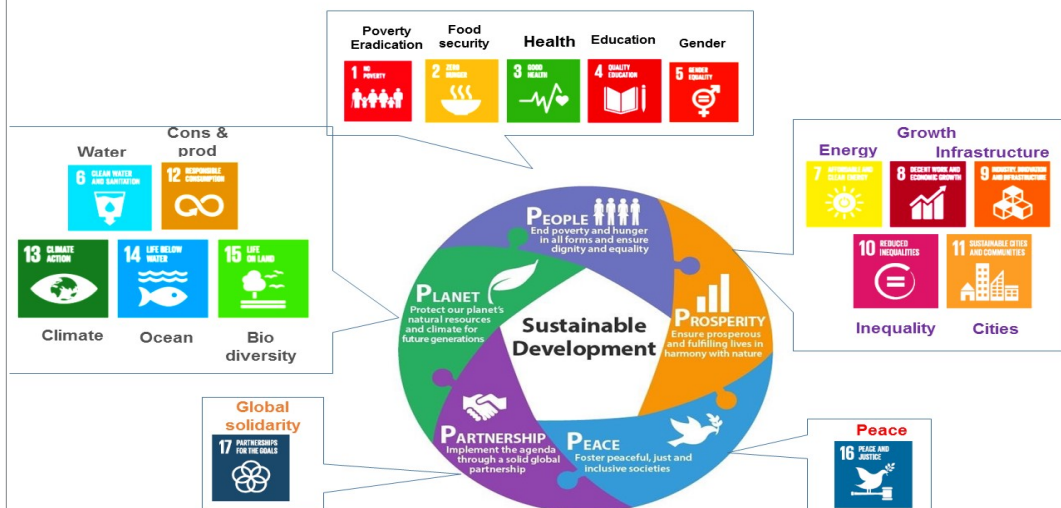
The 2030 Agenda for Sustainable Development:

Prioritizing and monitoring peace education and global citizenship education

The 2030 Agenda for Sustainable Development

At its heart are the 17 Sustainable Development Goals (SDGs) to support Planet, People, Prosperity, Peace and Partnership

UN Member States also adopted 169 targets and 230 global indicators to follow up and review country progress on the 17 SDGs



The creation of the 2030 Agenda for Sustainable Development: Merging the development, sustainability and education agendas into one universal agenda

- **Merging of development (Millennium Development Goals) and environment agendas: Earth Summit 1992 (Rio), World Summit on SD, 2002 (J-berg), UN Conference of Sustainable Development, 2012 (Rio +20)**
- In 2013 UN establishes country-led Open Working Group (OWG) to negotiate merged post-2015 agenda
- UN conducts *World We Want* survey: almost 10 million people participate
- **Merging post-2015 education and development agendas: Education for All (EFA) process concludes at Global Education Meeting in Muscat Oman, May 2014, when reps of int'l educ community decide to commit to post-2015 sustainability agenda**
- OWG agrees to **separate** Education Goal (SDG 4) together with 7 Targets and 3 Means of Implementation in July 2014. Proposed education goal reflects most, though not all, priorities of international education community
- UN SG synthesis report (Dec 2014) proposes 17 SDGs & 169 targets
- **World Education Forum: Incheon Declaration (May 2015): Ratifies work of OWG**
- UN adopts 2030 Agenda 2030 for Sustainable Development (September 2015) and final formulations of 17 goals and 169 targets
- **UNESCO member states adopt Education 2030 Framework for Action (Nov 2015)**

Global Goal on Education (SDG4)

“Ensure inclusive and equitable quality education & promote lifelong learning opportunities for all”

4 QUALITY EDUCATION



Vision and Principles

- A single universal agenda: Education 2030 = SDG 4
- Human right and public good
- Comprehensive, holistic, ambitious, aspirational and universal
- Transformative, equity oriented 'leaving no one behind'
- Lifelong learning approach focusing on skills for work and life
- Focus on quality and learning outcomes
- Addresses unfinished EFA/MDG agenda and current and future challenges

Targets

- 4.1 Quality primary & secondary education**
- 4.2 Early childhood & pre-primary education**
- 4.3 Equal access to TVET & higher education**
- 4.4 Relevant skills for work**
- 4.5 Gender equality & equal access for all**
- 4.6 Youth and adult literacy**
- 4.7 Education for Sustainable Development and Global Citizenship Education**
- 4.a Learning environments**
- 4.b Scholarships for higher education**
- 4.c Teachers**

What is distinctive about SDG4 and its 10 targets, relative to earlier EFA and MDG policy agendas?

- The SDG4 agenda is **universal**, applicable to all countries (including Israel) and not just those in the Global South
- More **ambitious**: seeks to expand and transform education systems (eg, universal primary **and** secondary education) in ways that are without historical precedent, especially in the time frame allotted (2030)
- More **comprehensive** set of targets: includes formal and non-formal education; Early childhood development and Pre-primary education, 12 years of basic schooling, TVET, higher education, adult education and lifelong learning opportunities
- More **output** oriented: relevant and effective learning outcomes at primary and secondary education; literacy and numeracy among youth and adults; non-cognitive skills for employment & decent work; knowledge and skills for environmental sustainability and global citizenship
- Focuses on the **contents** and **aims** of schooling and not just universal access to, or completion of, primary education
- Focuses on **equity** issues, as reflected in 'leaving no one behind'

Education and lifelong learning are also referenced in other SDGs



Health and well-being

Target 3.7: By 2030, ensure universal access to sexual and reproductive health -care services, including for family planning, information and **education**, and the integration of reproductive health into national strategies and programmes



Gender equality

Global Indicator: Number of countries with laws and regulations that guarantee women aged 15-49 years access to sexual and reproductive health care, information and **education**



Decent work and economic growth

Target 8.6: By 2020 substantially reduce the proportion of youth not in employment, **education** or training (NEET)



Responsible consumption & production

Target 12.8: By 2030 ensure that people everywhere have the **relevant information and awareness for sustainable development and lifestyles** in harmony with nature



Climate action

Target 13.3: Improve **education**, awareness raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning



Peace, Justice and Strong Institutions

Target 16.7: Ensure responsive, inclusive, participatory and representative decision-making at all levels

Education for peace and global citizenship are explicitly mentioned in a special target under SDG4 – namely Target 4.7, which states:



Target 4.7 “By 2030, ensure all learners acquire knowledge and skills needed to promote sustainable development, including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, **promotion of a culture of peace and non-violence, global citizenship,** and appreciation of cultural diversity and of culture’s contribution to sustainable development.”

- Unlike other SDG4 targets, Target 4.7 touches upon the **social, humanistic and moral purposes** of education
- It explicitly **links education -- and the knowledge and skills acquired through education -- to other SDGs.**
- It establishes an education policy and programmatic framework that is **value-based and transformative in orientation.**
- Note that Target 4.7 makes reference to **all learners, which means to learning at all education levels, including higher education, and in all modalities.**

Key features of Target 4.7

- Significantly, Target 4.7 refers back to major priorities and themes set out in the Universal Declaration of Human Rights (1948) and in more recent international conventions, covenants and resolutions.
- Paragraph 2 in Article 26 of the UDHR states:
“Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship among nations, racial or religious groups, and shall further the activities of the UN for the maintenance of peace.”
- On October 6, 1999, the United Nations adopted a resolution entitled **“Declaration and Programme of Action on a Culture of Peace,”** which defined a culture of peace in the following manner:

UN Declaration and Programme of Action on a Culture of Peace (UN, 1999: A/RES/53/243)

A culture of peace is a set of values, attitudes, traditions and modes of behaviour and ways of life based on:

- a) Respect for life, ending of violence and **promotion and practice of non-violence through education, dialogue and cooperation**;
- b) Full respect for the principles of sovereignty, territorial integrity and political independence of States and non-intervention in matters which are essentially within the domestic jurisdiction of any State, in accordance with the Charter of the United Nations and international law;
- c) Full respect for and **promotion of all human rights** and fundamental freedoms;
- d) Commitment to peaceful settlement of conflicts;
- e) Efforts to **meet the developmental and environmental needs of present and future generations**;
- f) Respect for and promotion of the right to development;
- g) Respect for and promotion of **equal rights and opportunities for women and men**;
- h) Respect for and promotion of the right of everyone to freedom of expression, opinion and information;
- i) **Adherence to the principles of freedom, justice, democracy, tolerance, solidarity, cooperation, pluralism, cultural diversity, dialogue and understanding at all levels of society and among nations; and fostered by an enabling national and international environment conducive to peace.**

Clearly, many 4.7 themes are inter-related & inter-twined

For example, here is a quote on Cultural Diversity and its relationship to Education for Sustainable Development (ESD)*

“...Together the cultures of the world create a rich and varied tapestry. The resulting cultural diversity expands choices, nurtures a variety of skills, human values and worldviews and provides wisdom from the past to inform the future. Cultural diversity is a mainspring for sustainable development for individuals, communities and countries. Thus, building an effective global approach to sustainable development and ESD needs to address respecting, protecting and maintaining the cultural diversity of the world now and in the future.

Cultural diversity exerts strong influence on ESD in that:

- All ESD must be locally relevant and culturally appropriate;
- Culture influences what this generation chooses to teach the next generation including what knowledge is valued, skills, ethics, languages and worldviews;
- ESD requires intercultural understanding if people are to live together peacefully, tolerating and accepting differences amongst cultural and ethnic groups.”

*UNESCO: en.unesco.org/themes/education-sustainable-development/cultural-diversity)

Evolving notions of Global Citizenship Education (GCED)

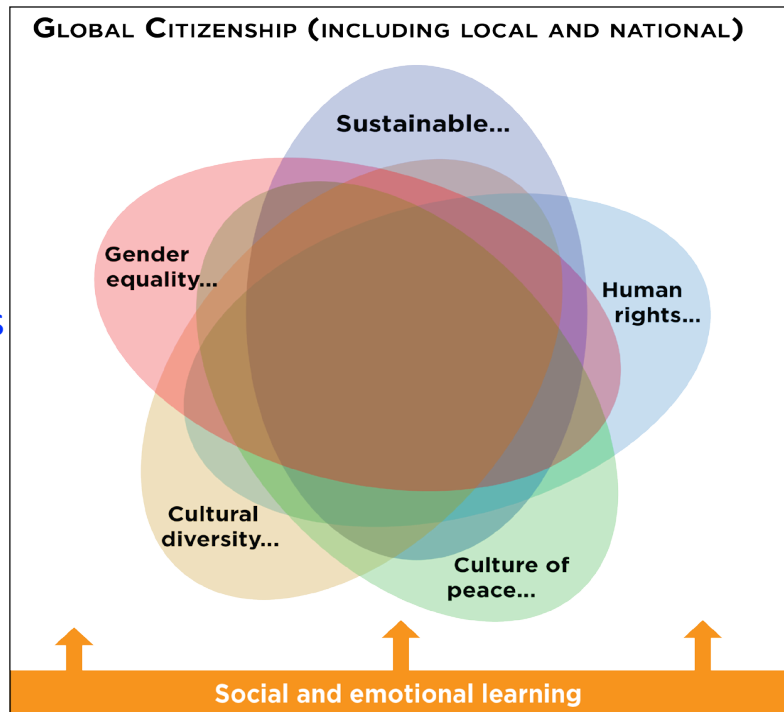
In 2012 the UN Secretary General, Mr. Ban Ki Moon established the **Global Education First Initiative**, organized around three priorities, one being GCED:

“It is not enough for education to produce individuals who can read, write and count. Education must be transformative and bring shared values to life. It must cultivate an active care for the world and for those with whom we share it. Education must also be relevant in answering the big questions of the day. Technological solutions, political regulation or financial instruments alone cannot achieve sustainable development. It requires transforming the way people think and act. Education must fully assume its central role in helping people to forge more just, peaceful, tolerant and inclusive societies. It must give people the understanding, skills and values they need to cooperate in resolving the interconnected challenges of the 21st century...Education policies should promote peace, mutual respect and environmental care.” (Ki Moon 2012)

Since 2015 UNESCO has defined GCED thus:

“GCED aims to empower learners of all ages to assume active roles, both locally and globally, in building more peaceful, tolerant, inclusive and secure societies....It seeks to engender “a sense of belonging to a broader community and common humanity, which emphasizes political, economic, social and cultural interdependence and interconnectedness between the local, the national and the global” (UNESCO 2015, p.14).

The inter-relationships of 4.7 themes



The 2030 Agenda also elaborated new accountability frameworks: How are countries meant to ‘follow up and review’ progress in relation to the 17 SDGs & 169 targets?

1) Through Voluntary National Reviews

2) Through an elaborate indicator framework with different indicators and measures

- **Global** indicators = at least one per target
- **Thematic** indicators = globally comparable indicators
- **Regional** indicators
- **National** indicators

**Source: Synthesis Report of UN Secretary General (December 2014)*

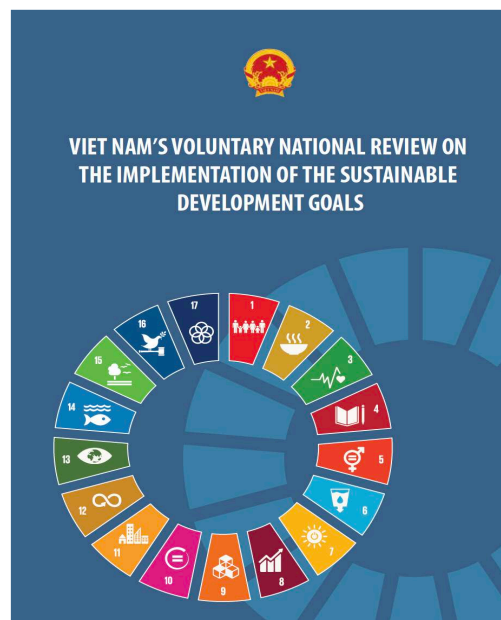
"The 2030 Agenda is our roadmap and its goals and targets are tools to get there." - Secretary-General António Guterres

Country Follow up and Review of the SDGs: Voluntary National Reviews

“Conduct regular and inclusive reviews of progress at the national and sub-national levels, which are country led and country driven...”
(para 79 of 2030 Agenda for SD)

UN provides common reporting guidelines for Voluntary National Reviews

Until now, 158 VNRs have been conducted (22 in 2016, 43 in 2017, 46 in 2018, 47 in 2019). More than 140 countries have submitted VNRs, some twice. VNRs are an important source for reviewing country progress on the SDGs, including SDG4



Measuring and Monitoring Target 4.7

Target 4.7 “By 2030, ensure all learners acquire knowledge and skills needed to promote sustainable development, including among others through education for sustainable development and sustainable lifestyles, human rights, gender equality, **promotion of a culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and of culture’s contribution to sustainable development.**”

1 **Global Indicator** and 4 **Thematic Indicators**

Global indicators are discussed and finalized by InterAgency Expert Group-SDGs, which uses a 3-tier classification system to characterize each indicator

Thematic indicators finalized by Technical Cooperation Group – UIS Secretariat

Different **measures** can be proposed for same **indicator**

Measuring and monitoring Peace Education and GCED

Global indicator 4.7.1: Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in (a) national education policies, (b) curricula, (c) teacher education and (d) student assessment

- The themes in the global indicator 4.7.1 have not been extensively measured by countries or international agencies.
- Many, if not most, of the concepts in 4.7 have contested definitions as well as different histories, and understandings, in different countries and in international documents.
- Thus, little consensus about the content domains of each concept mentioned in Target 4.7 and the global indicator.
- We have few examples of international information on the knowledge and skills implied by 4.7. Some surveys have been undertaken, although they are limited for many reasons, including country coverage or data comparability (see below)

Monitoring Global indicator 4.7.1: 1974 recommendation reporting

Extent to which (i) **global citizenship education** and (ii) **education for sustainable development**, including gender equality and human rights, are mainstreamed in (a) *national education policies* (b) *curricula* (c) *teacher education* and (d) *student assessment*.

- Existing reporting mechanism on the **UNESCO Recommendation concerning Education for International Understanding, Co-operation and Peace and Education relating to Human Rights and Fundamental Freedoms** (adopted in 1974 by the 18th UNESCO General Conference).
 - Compatible with the concepts contained in Target 4.7.
 - Member States have the obligation to report every four years.
 - UNESCO Commissioned a review of past country reports on the implementation of the 1974 Recommendation for the reporting cycles for which data are available (cycles 3-5).
 - 94 reports were analyzed (35 from 2005-2008 and 57 from 2009-2016)
 - The data obtained will also be used for Target 12.8 on sustainable consumption, may inform Target 13.3 on climate change education.
- ➔ 6th Consultation ended in January 2017. 83 countries have submitted a national report. Report to be submitted to UNESCO's General Conference in November 2017.
- Focal point: UNESCO ESG

Dashboard of five measures of indicator 4.7.1

1) National education policy, 2) Teacher education, 3) Student assessment, and two for Curricula: 4) Curricula content and 5) Curricula resources

National education policies is a combined indicator of 3 items (n=77)

- IV.1 - To what extent are the guiding principles of the 1974 Recommendation reflected in your constitution or domestic legislation?
- IV.2 - To what extent are the principles of the 1974 Recommendation reflected in your country's current education policy/ies and frameworks?
- IV.25 - How would the current overall implementation of the principles 1974 Recommendation be rated?

Teacher Education is a combined indicator of 3 items (n=69)

- IV.12 - Which of the following, or similar, principles and topics are taught in your formal educational system as part of the curriculum?
- IV.13 - Teachers for which level of education received training that reflects the principles and topics mentioned earlier?
- IV.14 - Please indicate the overall percentage of teachers estimated to have been trained on these principles and topics through in-service training and teacher professional development.

Student Assessment is a combined indicator of 3 items: (n=64)

- IV.15(a) - Are the principles and topics mentioned earlier included generally in student assessments/ examinations?
- IV.15(b) - If yes, please indicate which of the following dimensions of learning were included in the last student assessments/examination.
- IV.16 - Which of the following dimensions of learning is your country planning to reinforce in student assessment/examinations in the next five years, in relation to the principles and topics mentioned earlier?

Curricula Content is a combined indicator of two items (n=80)

- IV.7 - Which of the following, or similar, principles and topics are taught in your formal educational system as part of the curriculum?
- IV.23 - What opportunities are provided at school level for students to participate in decision-making processes that concern them?

Curricula Resources is a combined indicator of two items (n=74)

- IV.11 - Overall, are the number of teaching hours for the principles and topics mentioned earlier estimated to be sufficient?
- IV.18 - To what extent are there adequate teaching and resource materials (including ICTs and audio-visual materials) to teach/deliver the principles below and engage learners?

Member State	National Education Policies	Curricula: Content	Curricula: Resources	Teacher Education	Student Assessment
Albania	83.33	61.11	34.72	27.78	44.44
Andorra	50	77.78	65.28	16.67	66.67
Argentina	M	66.67	100	83.33	66.67
Armenia	75	100	76.39	36.11	100
Austria	58.33	83.33	63.89	83.33	M
Bangladesh	33.33	38.89	31.94	22.22	55.56
Belgium	58.33	83.33	52.78	30.56	77.78
Bolivia	M	77.78	83.33	91.67	M
Bosnia	58.33	72.22	73.61	75	M
Bulgaria	91.67	100	44.44	38.89	44.44
Burundi	66.67	50	38.89	M	55.56
Cambodia	91.67	100	79.17	75	100
Cameroon	50	77.78	63.89	75	100
Canada	M	M	76.39	M	100
Central African Republic	83.33	55.56	M	63.89	77.78
Chad	33.33	72.22	41.67	41.67	100
Chile	41.67	44.44	62.5	M	M
Colombia	83.33	16.67	59.72	19.44	33.33
Cook Islands	66.67	50	65.28	M	55.56
Cote D'Ivoire	50	94.44	41.67	75	100
Czechia	100	66.67	100	33.33	M
Democratic Republic of Congo	25	66.67	48.61	41.67	55.56
Denmark	58.33	83.33	73.61	91.67	66.67
Ecuador	91.67	33.33	M	M	88.89
Egypt	33.33	94.44	61.11	M	77.78
El Salvador	25	55.56	25	47.22	33.33
Estonia	66.67	44.44	62.5	66.67	77.78
Ethiopia	75	100	68.06	72.22	66.67
Finland	75	94.44	87.5	M	M
France	83.33	72.22	100	M	100
Georgia	91.67	100	52.78	58.33	77.78

Target 4.7: Other measurement and monitoring strategies

- 2016 Global Education Monitoring Report, chapter on Target 4.7
- 2019 UNESCO publication “*Educational Content up Close: Examining the learning dimensions of Education for Sustainable Development and Global Citizenship Education*”
- New learning assessments of topics related to Target 4.7 themes
- Others?

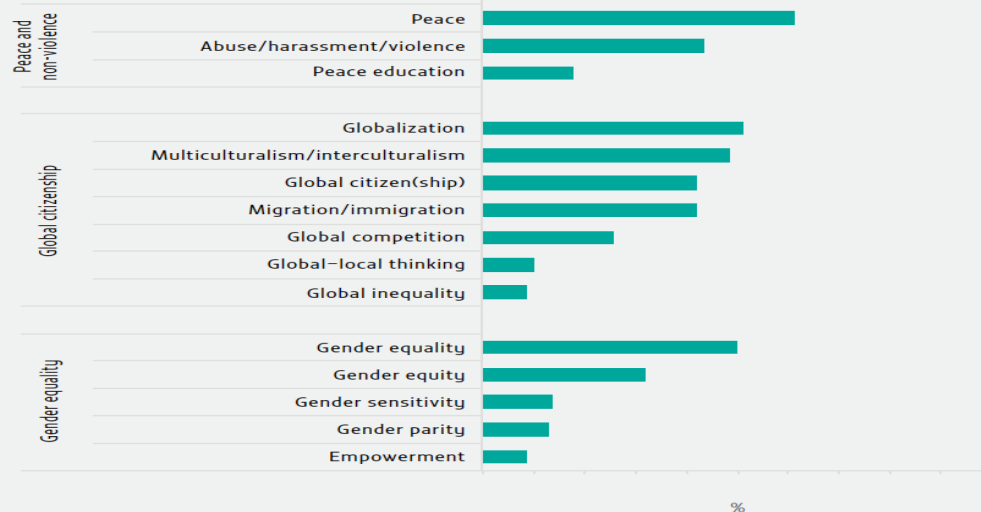
Figure: Percentage of countries (N=78) including each of the key terms -- human rights, gender equality, peace and non-violence, health/well being, sustainable development, and global citizenship -- in their national curriculum frameworks

FIGURE 13:

Human rights is the most prevalent concept in national curricula
Percentage of countries including each of the key terms in their national curriculum frameworks, 2005–2015



About **three-quarter of countries** included the terms 'sustainable development' or 'sustainability', but terms like social and economic sustainability were present in **less than one-third of countries'** national curricula.

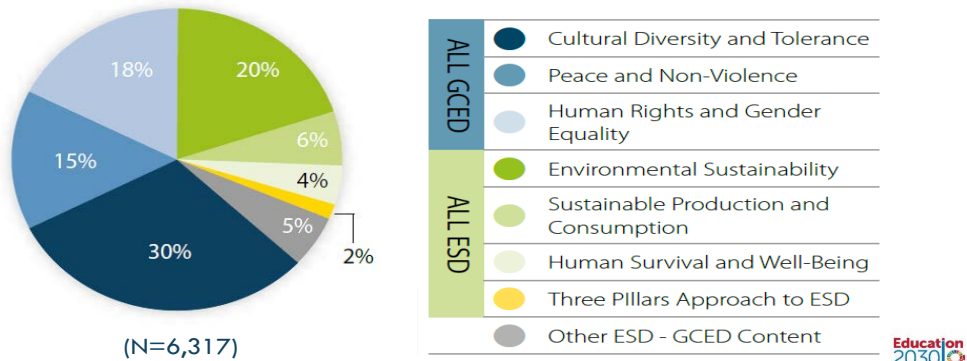


Note: The analysis is based on a sample of 78 countries.
Source: IBE (2016).

- Around **10% of countries** included terms such as 'global inequalities' or 'global thinking' in their curricula, whereas 'globalisation', and 'multiculturalism' and 'inter-culturalism' were mentioned in **half of the countries'** national curricula.

New UNESCO study, *Educational Content Up Close*, reports on content analyses of policy and curricular documents in 10 countries*

There is twice as much focus on GCED (64%) than on ESD (32%)



*Kenya, Rwanda, Lebanon, Morocco, Japan, Republic of Korea, Portugal, Sweden, Costa Rica and Mexico.

The three Learning Dimensions

The new UNESCO study argues that for effective teaching and learning of GCED and other 4.7 themes, all three learning dimensions – the cognitive, social & emotional and behavioural – should be included in both the processes and outcomes of learning.

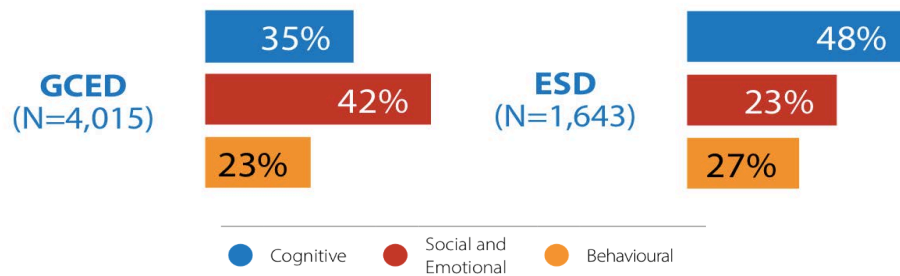
Cognitive: To acquire knowledge, understanding and critical thinking about global, regional, national and local issues, the interconnectedness and interdependency of different countries and populations, as well as social, economic and environmental aspects of sustainable development

Social and emotional: To have a sense of belonging to a common humanity, sharing values and responsibilities, empathy, solidarity and respect for differences and diversity, as well as feel and assume sense of responsibility for the future

Behavioural: To put learning into practice and act effectively and responsibly at local, national and global levels for a more peaceful and sustainable world

*UNESCO (2015) *Global Citizenship Education: Topics and learning objectives*. Paris: UNESCO
UNESCO (2017) *Education for Sustainable Development Goals: Learning objectives*. Paris: UNESCO

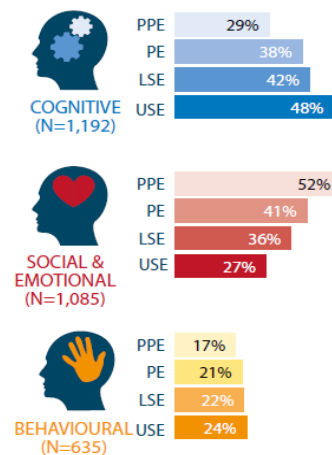
Finding: Greater focus on the social and emotional learning dimension in GCED and on cognitive dimension in ESD



Education
2030

Finding: Focus on cognitive learning increases, while focus on social and emotional decreases in higher education levels

PPE – PRE-PRIMARY EDUCATION
PE – PRIMARY EDUCATION
LSE – LOWER SECONDARY EDUCATION
USE – UPPER SECONDARY EDUCATION



Education
2030

Current initiatives to measure target 4.7 learning outcomes

Among basic education students

- IEA (2009) study of civic education: knowledge of world history, geography, international institutions and processes
- National learning assessments of civics, citizenship education, world history
- PISA (2006) included questions on knowledge, skill and dispositions on environmental and geoscience
- IEA 2016 ICCS will include global citizenship items
- Southeast Asia Primary Learning Metrics, items on global citizenship
- PISA 2018 will include items on global competence

Among adults and higher education students

- UN Sustainability Literacy Test (SULITEST) among higher education students to assess sustainability literacy
- World Values Surveys

Knowledge and attitudes about sustainability and environment

Few data sources survey adult knowledge and skills on ESD and global citizenship and other concepts under target 4.7

- **The Sustainability Literacy Test (SULITEST).** Between January and October 2014, almost 20,000 students in higher education took the SULITEST; the average score was 54%.
- **The International Social Survey Programme summary index** on environmental attitudes shows Canada, Denmark and Switzerland leading the ranks in environmental concern, with Bulgaria, the Philippines and South Africa at the lower end.
- **In 2015, the Pew Research Centre** conducted a survey in 40 countries to measure perceptions of global challenges, including climate change, economic instability and ISIS. In Latin America and sub-Saharan Africa, 60% of adults reported high concern about climate change.

Part V

Linking Higher Education to Peace Education and Global Citizenship Education

An inclusive education is a powerful preventive tool and antidote for violence



There can be no sustainable development without peace, and no peace without sustainable development.

- The 2030 Agenda for Sustainable Development

4

Peace: political participation, peace and access to justice



Uganda World

Education and communication campaigns can teach people how to participate in politics

Across 102 countries, adults with a tertiary education were 60% more likely to request information from the government



Education makes people more likely to participate in politics in constructive and non-violent ways



Across 106 countries over a 50 year period, those with higher education were more likely to engage in non-violent protests

Content and pedagogy matter

Student-centered and civics education encourages more participation in politics

A study from 35 countries showed that openness in classroom discussions increased political participation



Investing in education promotes the transition to democracy

Higher literacy levels accounted for half the regime transitions towards democracy between 1870 and 2000.



Formal and non-formal Education can help women take on leadership roles and take part in politics.

Engaging men and boys is critical for challenging and changing gendered power structures



Education can reduce crime, and reduce violence against children and youth

In Italy, more than 75% of convicted persons had not completed high school in 2001



Education programmes help the marginalised access justice and legal protection



An education that's provided equally is a powerful preventive tool and antidote for conflict.

Data from 100 countries over 50 years found that those with wider education gaps were more likely to be in conflict.



Curricula and learning materials can reinforce stereotypes and exacerbate social grievances



Iranian Persian textbook, grade 3, portraying martyrs

In Pakistan, overtly Sunni textbooks spilt over into conflict in 2000.

Conflict and violence are taking a disturbingly large toll on education systems



35% of out of school children & 25% of out of school adolescents live in conflict-affected areas

Children, teachers & schools are frequently under attack

Between 2005 and 2015, at least 26 countries saw schools and other education institutions being used for military purposes.



Education can help build societies after conflict



Education should be better recognised in peace-building agendas

Of all peace agreements signed between 1989 and 2005, almost one-third made no mention of education at all.



Part VI

Concluding reflections

How might universities transform themselves to promote peace and global citizenship?

While much depends on history and context, a few examples come to mind:

- Rethink or recalibrate the balance between research and teaching
- Support efforts by the humanistic and social sciences and/or interdisciplinary programs that seek creative solutions to large-scale 'intractable' problems
- Internationalize the content of courses and curricular programs; strengthen opportunities for study abroad; diversify the background of faculty and mentors; facilitate encounters between national and international students on campus
- Prioritize sustainability as a core construct in university life (in terms of knowledge, attitudes, norms and behaviour, and "green" institutional practices)
- Redesign extension education programs such as farmer field schools to go beyond the transmission of technical knowledge and agricultural practices and emphasizes gains in literacy and learning, gender equality, community involvement, empowerment etc.
- Recognize and validate indigenous knowledge and practices. Offer courses in local languages and help train teachers for local and indigenous languages
- Provide expertise to improve the measurement and monitoring of specific SDG targets, especially in relation to Target 4.7.

Concluding reflection

1. **Universities can and should play a leading role in addressing the pressing social, economic, political and environmental challenges of our time.**
2. **While contradictions abound in higher education, wise leaders should seek ways to navigate their institutions in directions that contribute to sustainability, peace and global citizenship.**
3. **The 2030 Agenda for Sustainable Development, in particular, opens up new opportunities for HEIs to rethink their mission and forge new partnerships within and across national borders and with international actors and agencies.**



Thank you!!!



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KOICA and University as Development Cooperation Partners

4 Feb. 2020
Jaeshin Park, Ph.D.
Vice President of KOICA

KOICA
Korea International
Cooperation Agency



People / Peace / Prosperity / Planet

-
- Contents**
- 1. SDGs**
 - 2. KOICA**
 - 3. University**

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Cooperation Agency

1. From MDGs to SDGs

People/Peace/Prosperity/Planet/

MDGs

- A set of eight time-defined development goals to make the world of the 21st century a safer and better place,
- Call for national action and international cooperation to provide access to food, education, healthcare and economic opportunity for children, women and men everywhere.



1. From MDGs to SDGs

People/Peace/Prosperity/Planet/

MDGs – Achievements and Limitations

• Achievements

- ✓ UN, “the most successful anti-poverty movement in history.”
- ✓ Ban Ki-moon, “... helped to lift more than one billion people out of extreme poverty, to make inroads against hunger, to enable more girls to attend school than ever before and to protect our planet.”

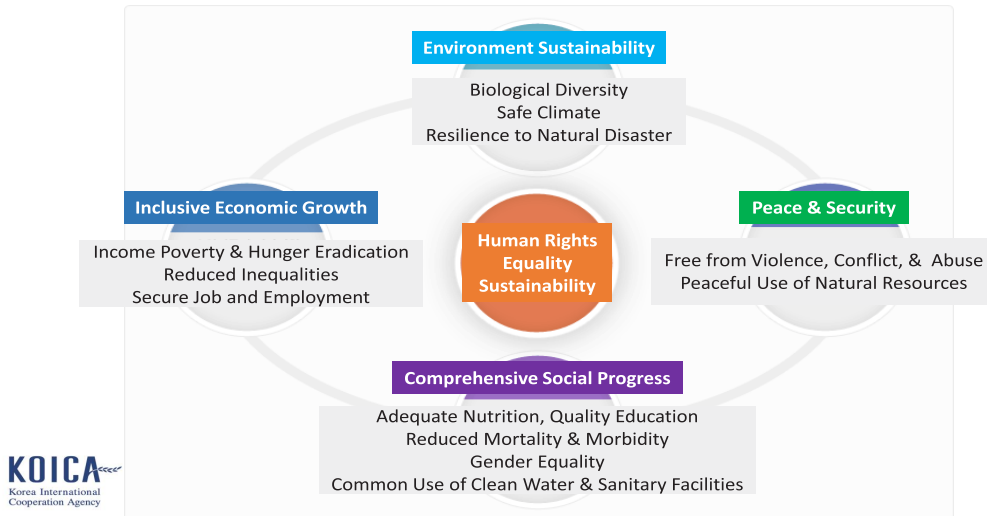
• Limitations

- ✓ Missing targets - Impossible without the back-up of economic growth
- ✓ More effective to aid-dependent countries – Local ownership?
- ✓ “inequalities persist and progress has been uneven”
- ✓ Not addressing global issues such as inequality, human rights, gender equality, peace and security, environmental sustainability and climate change, etc.

1. From MDGs to SDGs

People / Peace / Prosperity / Planet

Post-2015 UN Development Agenda Framework



1. From MDGs to SDGs

People / Peace / Prosperity / Planet

SDGs

- A new, universal set of goals, targets and indicators that UN member states will be expected to use to frame their agendas and political policies over the next 15 years until 2030



1. From MDGs to SDGs

People / Peace / Prosperity / Planet

MDGs vs. SDGs

MDGs (2000~2015)		SDGs (2015~2030)
<ul style="list-style-type: none"> • Social progress of developing countries • Focused on extreme poverty 	→	<ul style="list-style-type: none"> • Sustainable development of all countries and areas • Reducing all forms of poverty & inequalities
<ul style="list-style-type: none"> • Development assistance toward developing countries 		<ul style="list-style-type: none"> • Universal principles that apply to all countries
<ul style="list-style-type: none"> • Development assistance between countries 		<ul style="list-style-type: none"> • Strengthening of public-private partnership
<ul style="list-style-type: none"> • Public financing centered 		<ul style="list-style-type: none"> • Private sector financing sought
<ul style="list-style-type: none"> • Voluntary performance reporting 		<ul style="list-style-type: none"> • Enhanced accountability for performance reporting

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2. KOICA

People / Peace / Prosperity / Planet

Korea International Cooperation Agency



Established
(1 April 1991)



OECD DAC
(Joined in 2009)



Framework Act on
International Development Cooperation
(Enacted in 2010)

Article 3 (1) The basic ideas of international development cooperation is to reduce poverty, improve the human rights of women, children, people with disabilities, and youth achieve gender equality, realize sustainable development and humanitarianism in developing countries, promote economic cooperation relationship with partner countries and pursue peace and prosperity in the international community.

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2. KOICA

People/Peace/Prosperity/Planet/

4P Value



People

People-centered
development cooperation
based on human dignity



Peace

Peaceful and just
inclusive society



Prosperity

Mutual, future-oriented
co-prosperity



Planet

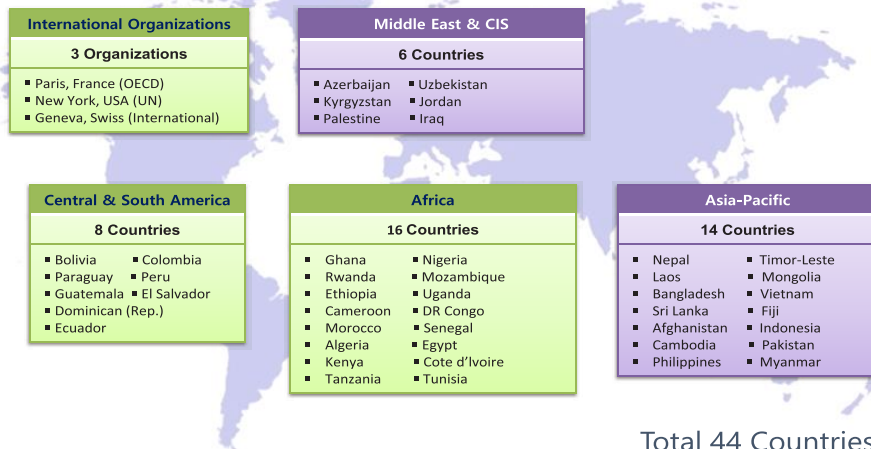
Sustainable preservation
of earth environment

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2. KOICA

People/Peace/Prosperity/Planet/

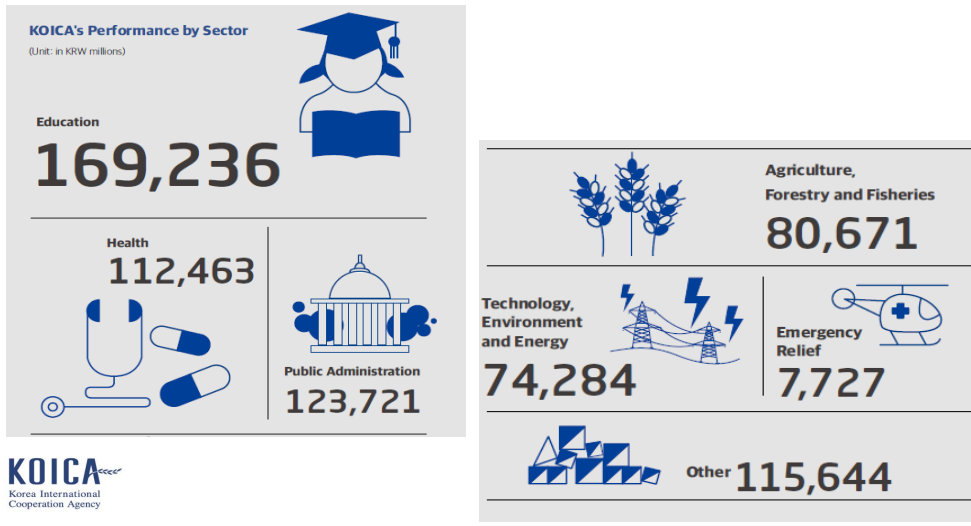
Overseas Offices



2. KOICA

People / Peace / Prosperity / Planet

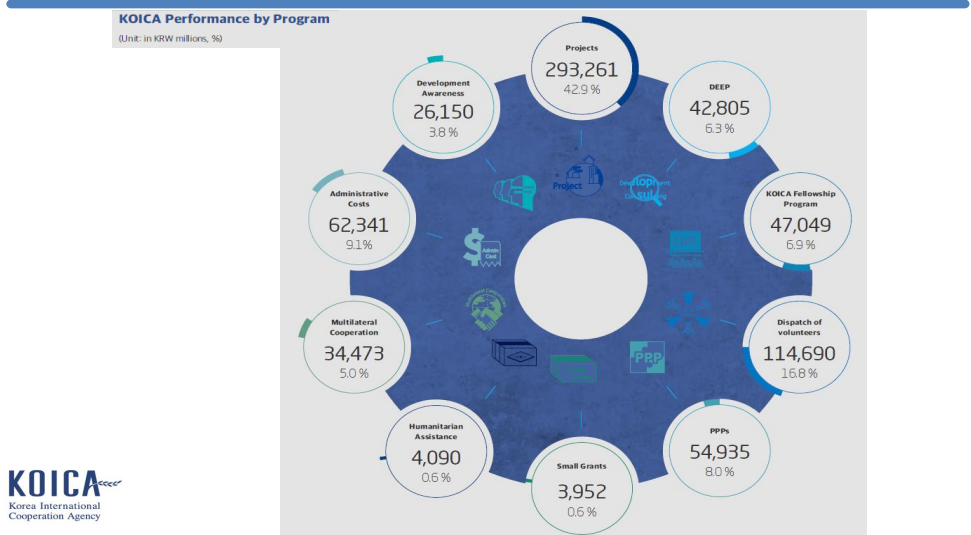
Focus Areas



2. KOICA

People / Peace / Prosperity / Planet

Programs



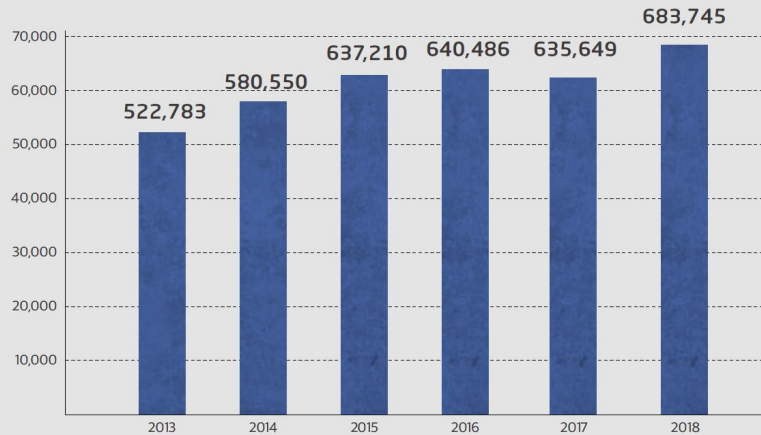
2. KOICA

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Budget

Progress of KOICA's Foreign Grant Aid Performance

(Unit: in KRW millions)



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2. KOICA

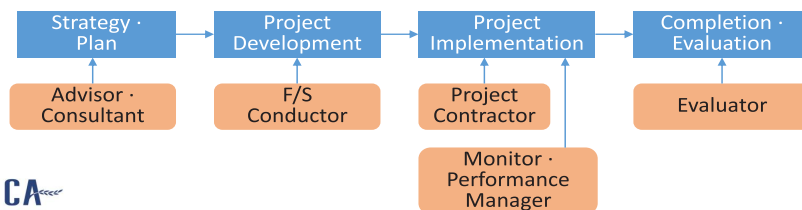
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Collaboration with Partners

• Collaboration Partners

- ✓ Government (MDAs) & Public Institutions
- ✓ CSOs
- ✓ Experts
- ✓ Practitioners

• Process vs Contents



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3. Role of University

People / Peace / Prosperity / Planet

University as Collaboration Partner

- **University**
 - ✓ Mission - Research, Education, Service
 - ✓ Players - Professors, Researchers, Staffs, Students
- **Activities as Partner**
 - ✓ Project Implementation
 - ✓ Capacity Building Program
 - ✓ Evaluation (Completion, Post-Implementation, Sector, Country)
 - ✓ Monitoring & Performance Management
 - ✓ Consulting & Advice, Committee

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3. Role of University

People / Peace / Prosperity / Planet

International Development Cooperation Center

- **Established in 5 Universities**
 - ✓ Keimyung University, Jeju National University, Jeonbuk National University, Incheon National University, Kangwon National University
- **Goals**
 - ✓ Promotion of international development cooperation and ODA in the provinces
 - ✓ Expansion of partner networks, public awareness and interest building
- **Activities**
 - ✓ ODA education(including global citizenship education), information session, round-table conference, PR to local residents, firms, institutions, etc.
 - ✓ Support for local ODA, including the development of new ODA projects, consulting for effective project implementation
 - ✓ Identifying new ODA project partners and network building
 - ✓ Support for returning WFK volunteers

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INU 인천대학교
인천국제개발협력센터
Incheon International Development Cooperation Center

인천국제개발협력센터

3. Role of University

People / Peace / Prosperity / Planet

'Higher Education for a Prosperous Future' Initiative

- KOICA supports:
 - ✓ Improvements to higher education policies, systems, & curriculums
 - ✓ Support for master's & doctoral degrees / for R&D & tech startups
- By means of:
 - ✓ Capacity-building of local personnel
 - Foster local faculty & researchers through the introduction of master's & doctoral courses
 - Capacity-building of administrative personnel through short-term training in Korea
 - ✓ Enhancement of sustainability
 - Support a longer-term (5-10 years) while linking to other KOICA projects, and establish a triangular cooperation network with regional academic or TVET institutions
 - ✓ Mobilization of Korean universities' creativity for cooperation
 - Invite creative proposals, to take full advantage of Korean universities' educational expertise & networks for a more effective cooperation with beneficiary countries & educational institutions

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3. Role of University

People / Peace / Prosperity / Planet

'Higher Education for a Prosperous Future' Initiative

- In 2019 contest:
 - ✓ 20 proposals (from 16 universities) submitted → 15 proposals passed screening
 - Engineering / ICT: 4 proposals, Medical: 2 proposals, Environment: 4 proposals, Agriculture / fisheries: 4 proposals, Economics 1 proposal
 - ✓ 7 proposals passes presentation evaluation
 - Capacity Building for IPB University on Tropical Agriculture, Life Science, Environmental Management in Indonesia (2021~2028, USD12 million) & 6 proposals
→ On-site preliminary feasibility studies conducted
 - ✓ Project Documents to be reviewed at 7 Feb. 2020
 - Proposals that score ≥ 80 points → Select as ODA candidate projects to secure budgets in 2020
 - To be implemented from 2021 upon the agreement with the beneficiary governments & institutions

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3. Role of University

People/Peace/Prosperity/Planet/

Public-Private-Academic Partnership

- Merits

- ✓ Expertise in Various Fields
- ✓ Stability and Long-term Commitment
- ✓ Links to Research, Education, and Social Service

- Demerits

- ✓ Limited time availability – vacation periods, sabbatical year
- ✓ Secondary priority

- Future Direction

- ✓ Robust Eco-systems
- ✓ Development Studies
 - Regional studies, Project management, Performance management, Change management, etc.

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Thank You

.....

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Feb. 05, 2020

World University Presidents' Congress

The Future of University Education

Doh-Yeon KIM
Prof. Emeritus, Seoul National Univ.

Future

- The only thing we know about the future is that it will be different.

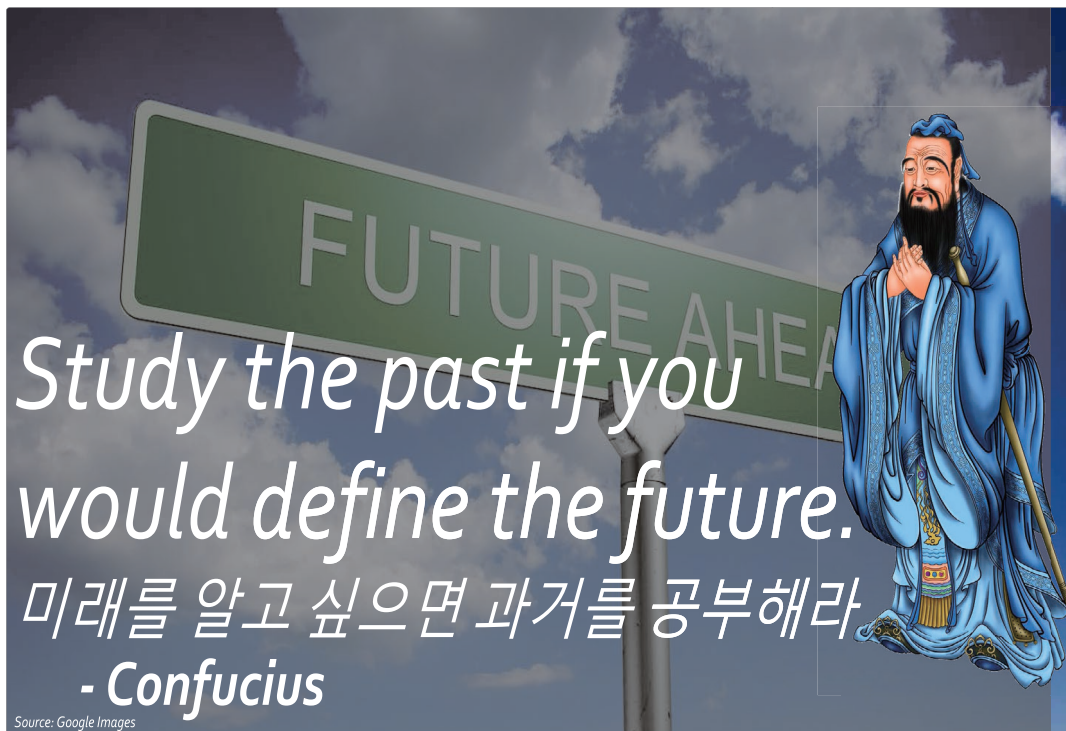
[Peter Drucker](#)



Future of University

Peter Drucker

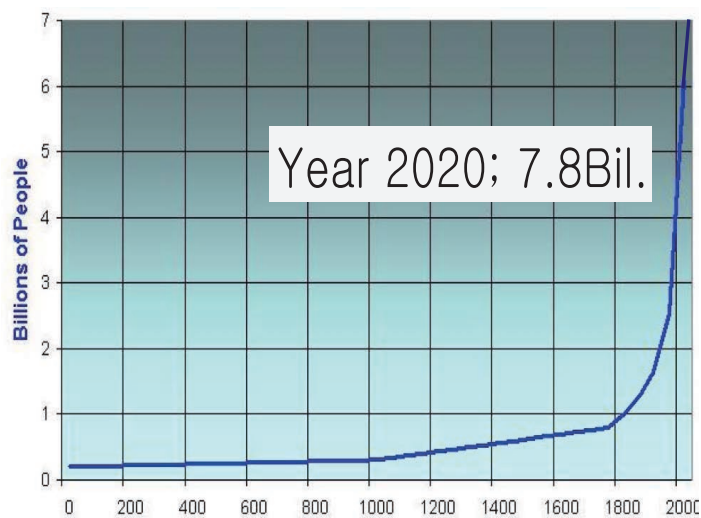
- 30 years from now, the big university campus will be relics. Universities won't survive. It's as large a change as when we first got the printed book.
- Interview in *Forbes* 159 (1997)



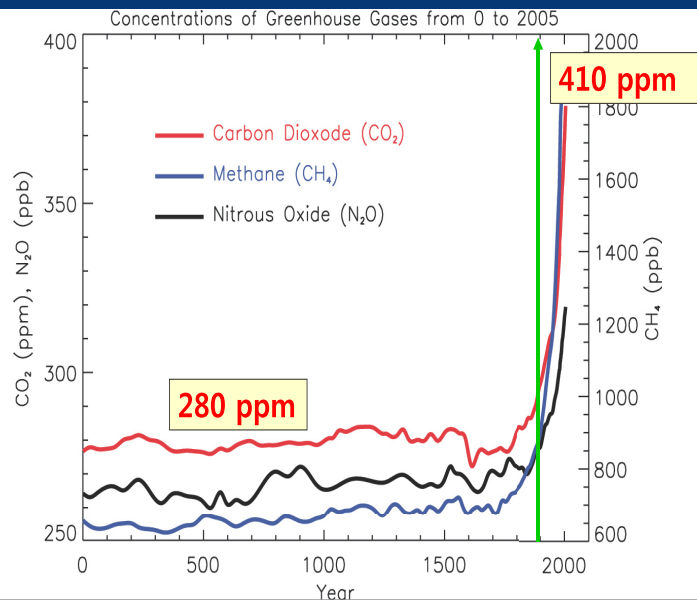
Past!

Change in World Population

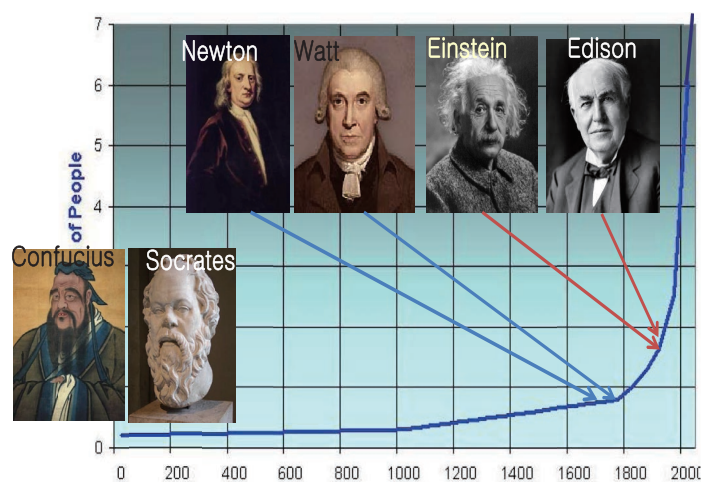
1800; 0.9Bil., 1900; 1.6Bil., 2000; 6Bil.



Concentrations of Greenhouse Gases



Change was driven by Sci. & Tech.!







Future!

<Super Longevity>

고령사회에서 초고령사회로!

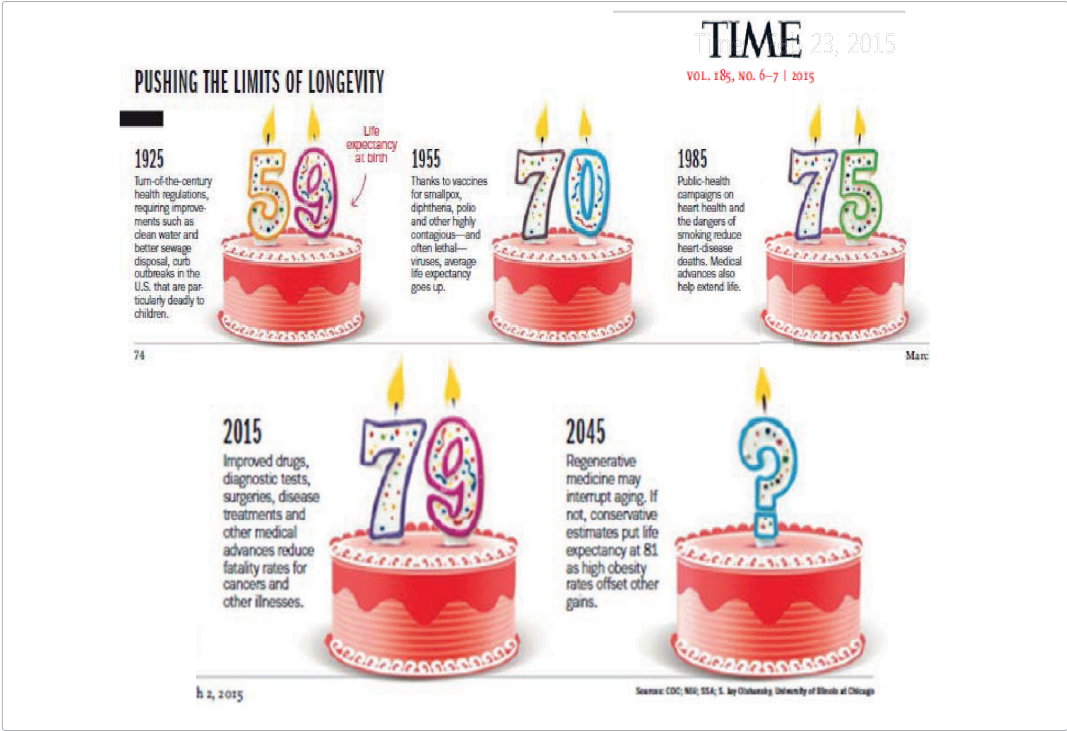
<People more than 65 years old>

Aug. 2017

Korea : 14.0%, Japan : 27.7%

In the year 2050

Korea : 36%, Japan : 40%





Time, Feb. 21, 2011

<Super Intelligence>

인간에서 <인간+기계>로!

Quantum Computing

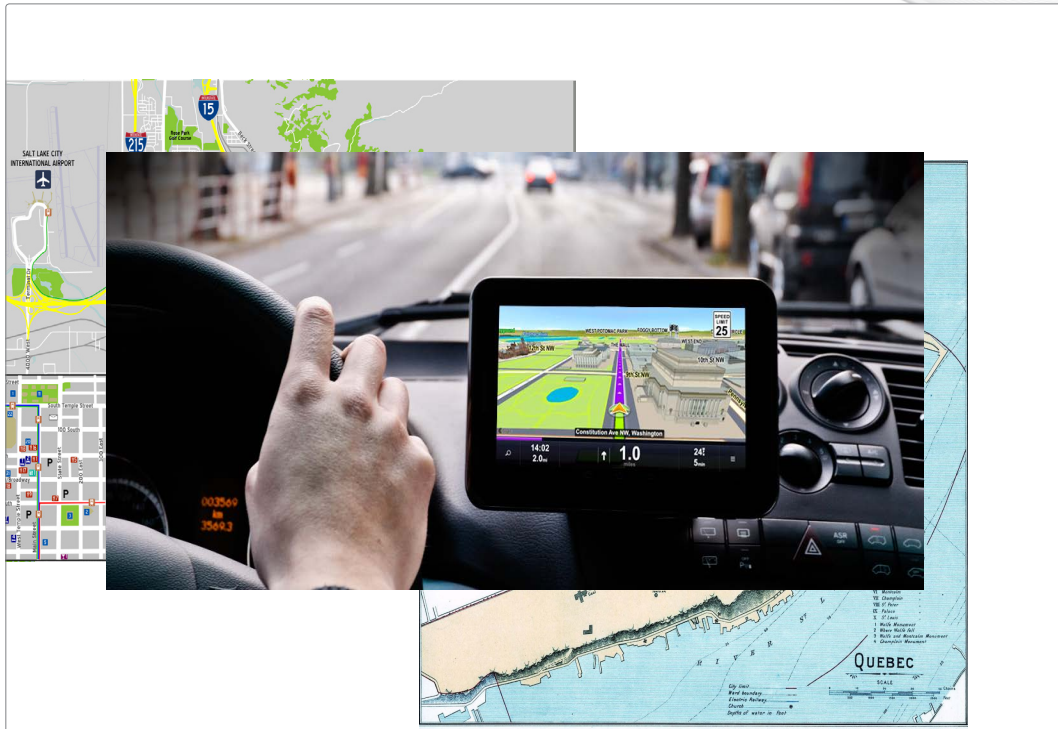
+

Artificial Intelligence

Always on, Always working,

Always learning

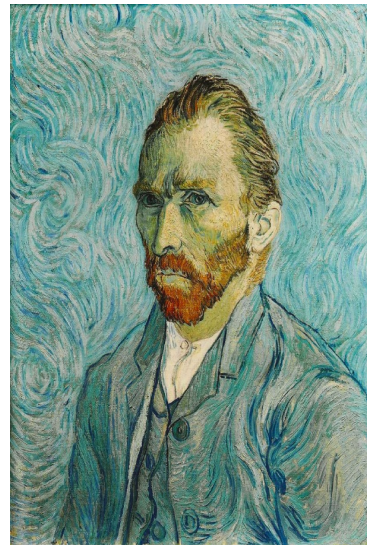
Human beings & Machines are living together!



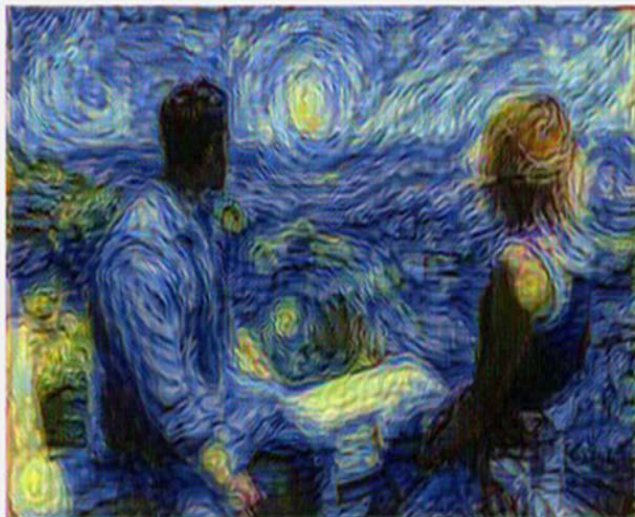
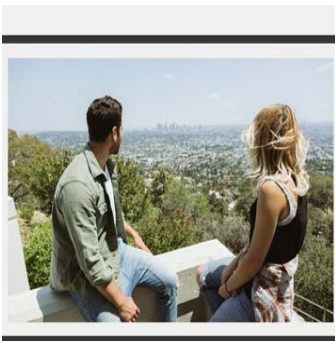
Wolfgang Amadeus Mozart (1756-91)



A piece of music, in the style of Mozart, generated by MuseNet. The tune is actually (you guessed it) the work of AI that was fed thousands of pieces of music as training data.



Vincent Van Gogh
(1853-1890)



Gogh style painting generated by AI.
Last October, one of portrait was sold 432,000\$ in
Christie's auction.

MIT is investing \$1 billion in an AI college

One of the most sizable commitments yet to building out the talent-scarce AI field

Oct 15, 2018

MIT, 10억 달러 투입해 AI 대학 신설
2019년 9월 신설, 50명 교수진 채용키로

<Super Connection>

연결사회에서 초연결사회로

Internet Nodes

1993: ~ 1 million

2008: ~ 7 billion > World Population

2018: ~20 billion

2020: ~50 bil. A phone is expected to be ~50\$

<Prof. Raj Reddy- 1994 Turing Award Recipient>

New world without borders!

<Changes leaded by the Companies>



**University
Education!**

<Super Longevity>

Employability!

Working for ~70 years
After the graduation

직업능력!

대학졸업 후 ~70 년의
사회·경제생활

For the **long** path of life
First Job!

-
-

Last job!!

긴 인생에서
첫 직장!

-
-

마지막 직장!!

University Education: Fostering the Learning People instead of the Learned People

배운(Learned) 사람이 아니라 배우는
(Learning) 사람을 길러내는 대학교육

<Super Intelligence>

**Knowledges are
changing!
Informations are
overflowing!**

**Why it's important to instill
the current knowledge?**

**변화하는 지식!
넘치는 정보!**

어떤 세상이 되어 있을지 모르는데,
현재의 지식을 주입하는 것이
무슨 의미가 있나?

Samuel Arbesman of Harvard University

<The Half-Life of Facts>

The half-life of physics is 13.07 years, economics 9.38 years, mathematics 9.17 years, psychology 7.15 years, history 7.13 years and religion 8.76 years.

하버드대학의 Samuel Arbesman - 《지식의 반감기》
물리학 반감기는 13.07년, 경제학은 9.38년, 수학은 9.17년,
심리학은 7.15년, 역사학은 7.13년, 종교학은 8.76년.

University Education:
not only for **Knowledge**
but also for **Wisdom**

지식과 더불어 **지혜**를
키우는 대학교육

<p>지혜(智慧)</p> <p>Wisdom is the daughter of Experience</p>  <p>L. DaVinci</p>	<p>지식(知識)</p> <p>The only source of knowledge is Experience</p>  <p>A. Einstein</p>
--	---

<Super Connection>

From individual rushes
to Collaboration!
Communicatin!
Consideration!

각자도생에서
동료 및 이웃과
협력!소통!배려!

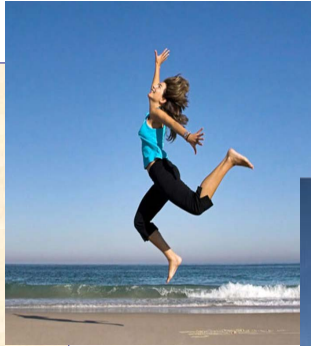
University Education: Fostering the Social-Emotional Skills

사회·정서적 역량을
키우는 대학교육

Social-Emotional Skills: Knowledge and attitudes necessary to manage emotions, set and achieve positive goals, maintain positive relationship with others, and make responsible decisions.

사회·정서적 역량: 스스로의 감정과 정서를 이해하고 다스려 긍정적인 인생을 살면서, 타인을 배려해 좋은 인간 관계를 맺으며, 자신의 결정에 책임지는 역량.

Human-being



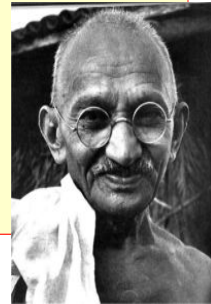
All things must change
to something new,
to something strange

Henry Wadsworth Longfellow
US poet (1807 – 1882)

Future

- The future depends on what you do today.

Mahatma Gandhi

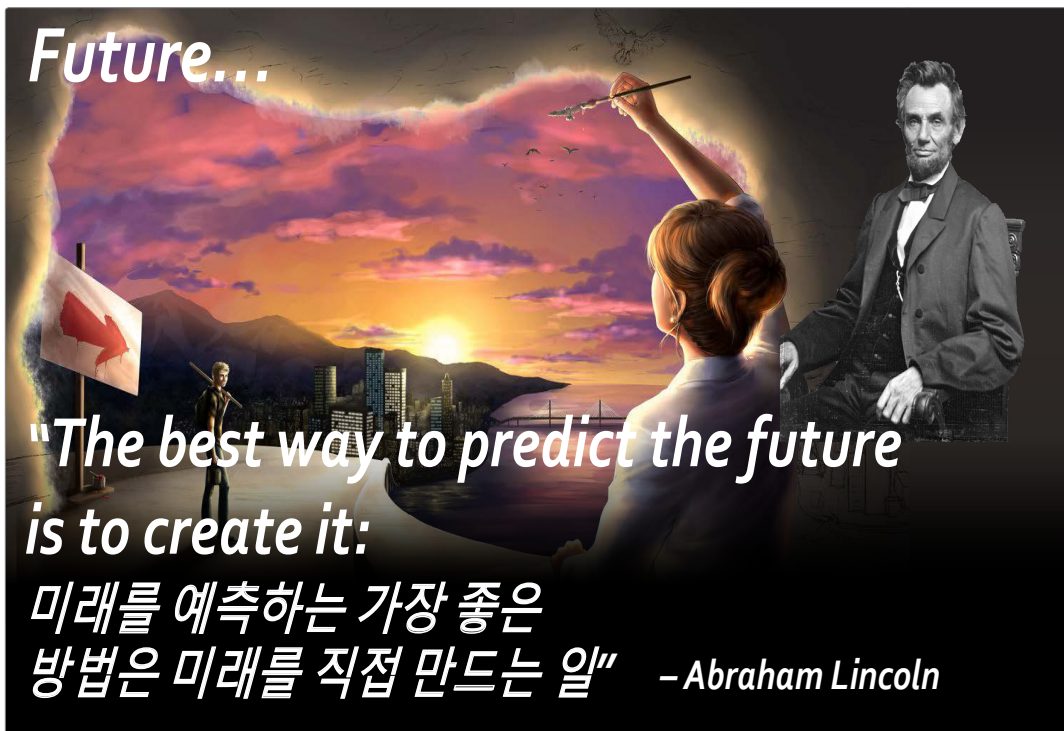


Future...

*"The best way to predict the future
is to create it:*

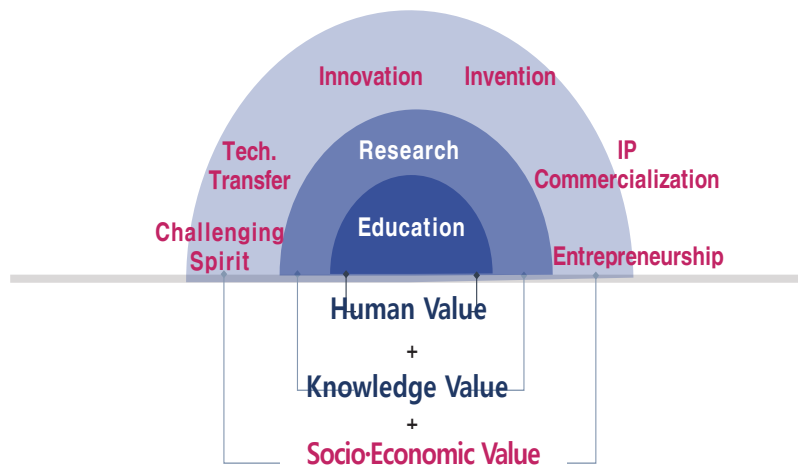
*미래를 예측하는 가장 좋은
방법은 미래를 직접 만드는 일"*

– Abraham Lincoln

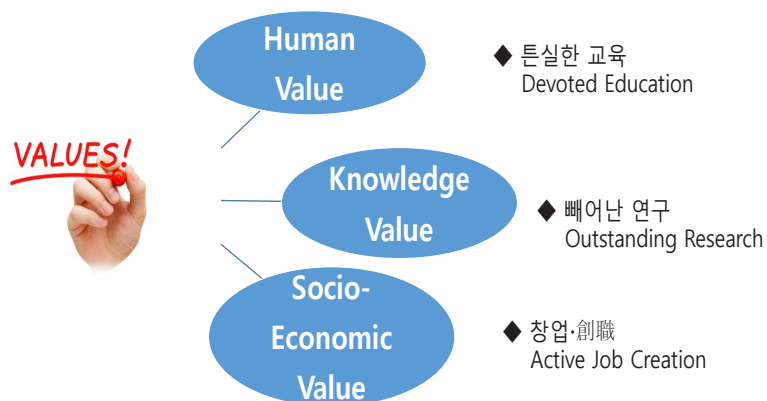


대학의 미래 설계

Beyond the Research University...



가치창출대학: 인재, 지식, 사회·경제적 가치 Value Creating University







Empowering the Workforce of the Future

Dassault Systèmes Korea
Managing Director
Youngbin CHO
youngbin.cho@3ds.com

 DASSAULT
SYSTÈMES | The 3DEXPERIENCE Company

Agenda

- ▶ Industry Renaissance powered by Experience
- ▶ Dassault Systèmes
- ▶ Empowering the Workforce of the Future

 DASSAULT
SYSTÈMES | The 3DEXPERIENCE Company

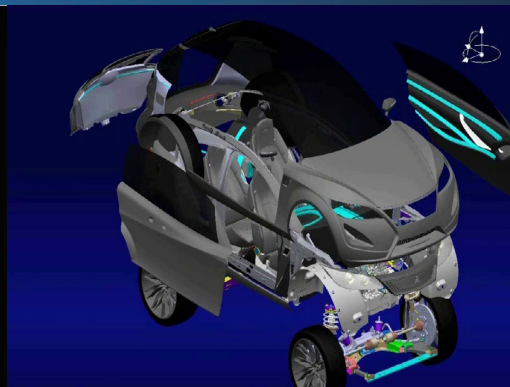


Real(Physical) vs. Virtual(Digital)

"Dassault Systèmes aims to make the distance between the virtual world and the real world ZERO"

- Bernard Charles, Dassault Systèmes, CEO

18 Document 2015



DASSAULT
SYSTEMES | The 3DEXPERIENCE Company

Dassault Systèmes | The 3DEXPERIENCE Company

- Davos Forum 'the most Sustainable company' **WW #1** (2018)
- Forbes Software domain 'the most Innovative company' **WW #2** (2014)

3DS.COM © Dassault Systèmes | Confidential Information | 1/28/2020 | ref.: 3DS_Document_2016



a Scientific company

Combining **Science, Technology and Art** for a sustainable society



17,000 passionate people

- 130 nationalities
- 181 sites
- One global R&D / 64 labs



250,000 customers

- 11 industries in 140 countries
- 25 million users
- Game-changing 3DEXPERIENCE solutions



12,600 partners

- Software, Technology & Architecture
- Content & Online Services
- Sales
- Consulting & System Integrators (C&SI)
- Education
- Research



Long-term driven

- Majority shareholder control
- Revenue: €3,488 million*
- Operating margin: 31.8%*

* Figures as of FY 2018 / Non-IFRS

DASSAULT SYSTÈMES | The 3DEXPERIENCE Company

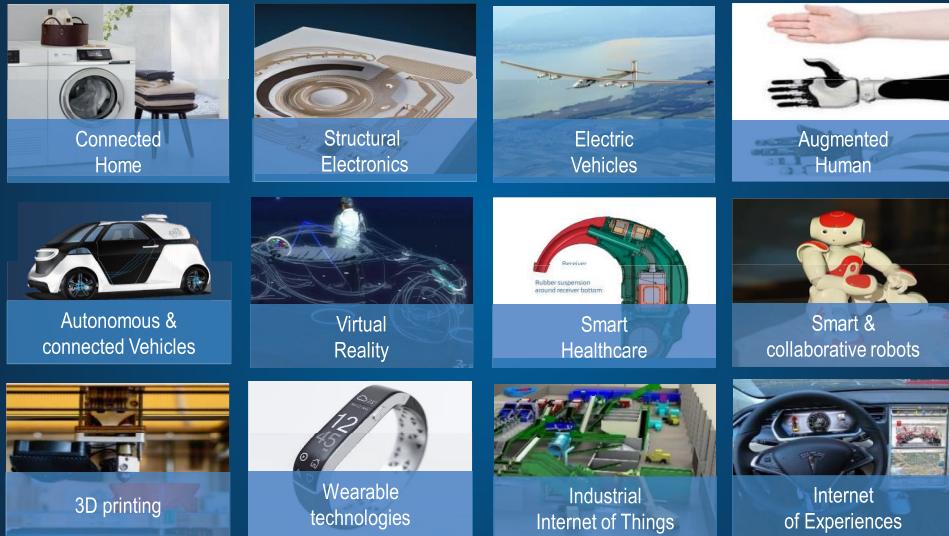
Dassault Systèmes | Key customers

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DASSAULT SYSTÈMES | The 3DEXPERIENCE Company

Preparation for Industry Renaissance Era



DASSAULT SYSTEMES | The 3DEXPERIENCE® Company

Dassault Systèmes | extend Digital Twin coverage

3D digital technology used for product development is now being applied to factories and cities.



Boeing 777 dev. (1995)
Aircraft designed and built without real

Industry 4.0
Cyber-Physical System

Innovative future industry
Virtual Singapore case

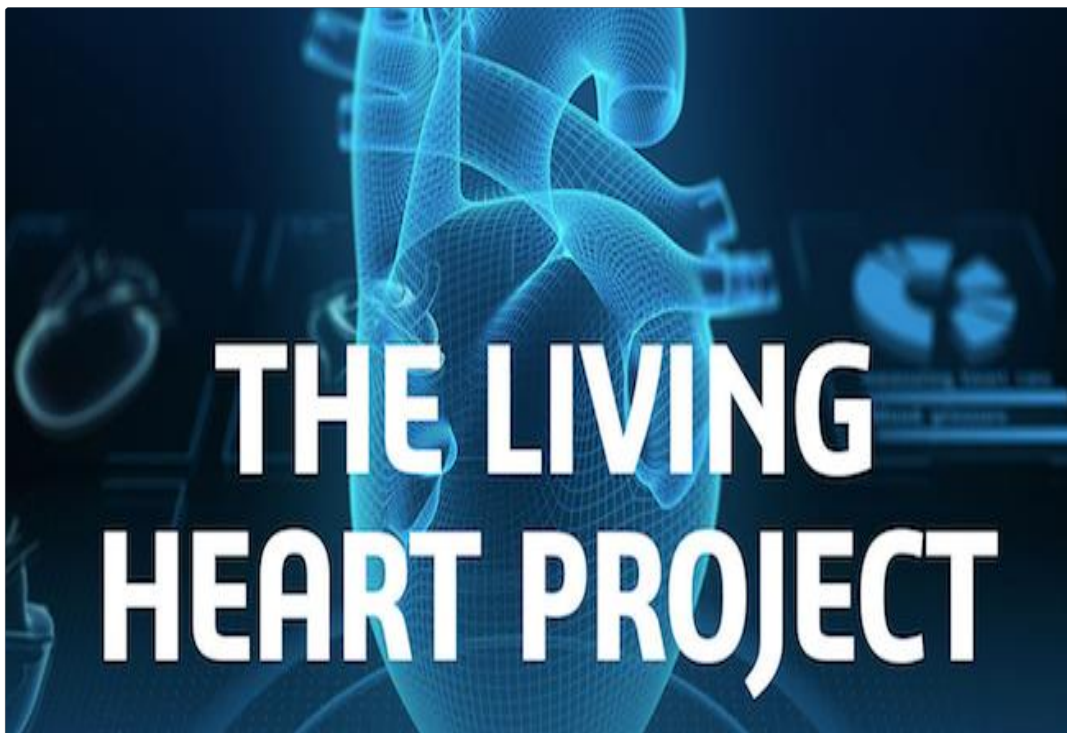
1981
3D Design

1989
3D DMU
Digital Mock-up

1999
3D PLM
Product Lifecycle Management

2012
3DEXPERIENCE® platform
Business Experience





Digital Twin | Solar Impluse – Innovation to change the world





Our footprint in building skills

Academia



7,6 M
Exposed Students

44,000 institutions

50,000 users
on 3DEXPERIENCE

Continuing Education



300 Education
Partners WW

E-learning courses

Certification programs

Learning Content Communities



**A community of
teachers** delivering
courses on our
solutions

Learning Hub
collaborative projects

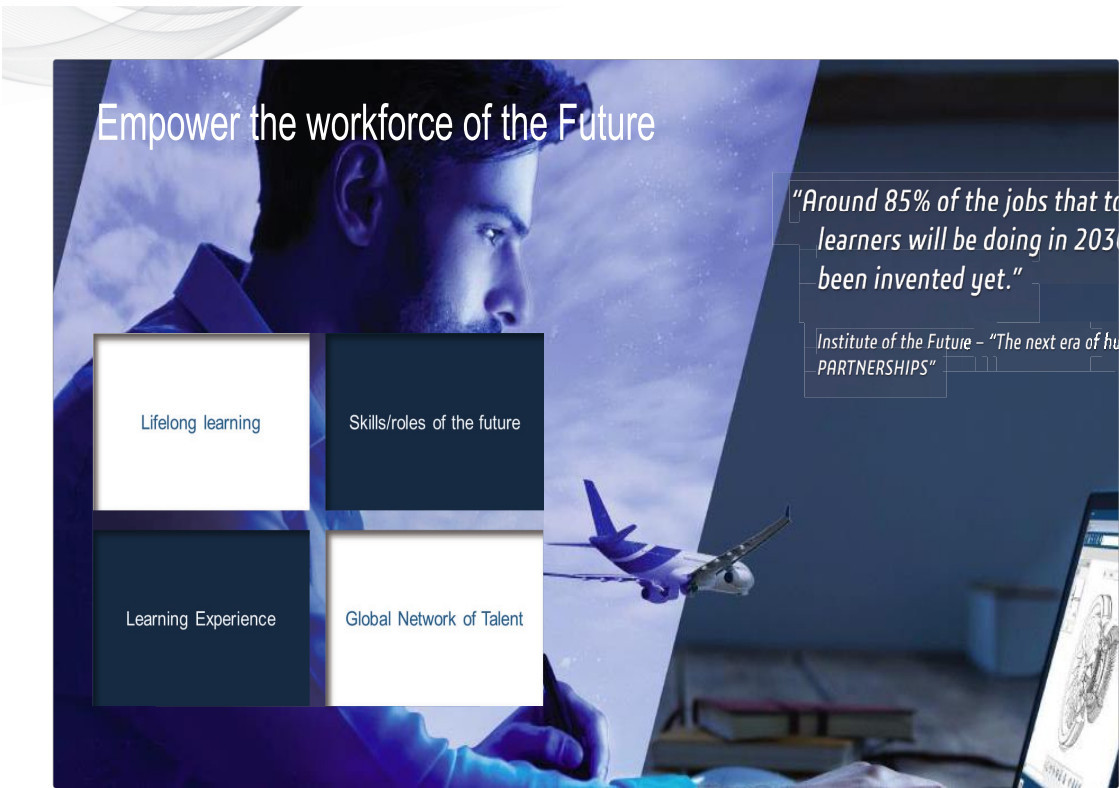
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Empower the workforce of the Future

"Around 85% of the jobs that tomorrow's learners will be doing in 2030 have not been invented yet."


Institute of the Future - "The next era of human-machine PARTNERSHIPS"

Lifelong learning	Skills/roles of the future
Learning Experience	Global Network of Talent



Elevating people

3DS.COM © Dassault Systèmes | Confidential Information | 1/28/2020 | ref.: 3DS_Document_2015



Business Innovators	
Engineer's activities	Engineer's role
Technician's activities	Technician's role
Operators activities	Operators role

"With our AI engines in the 3DEXPERIENCE platform, we are turning technicians into engineers, and engineers into business innovators"

Problem/Project Based Learning for "Industrie 4.0"

PBL/3DEXPERIENCE: a 200% Match

- Interdisciplinary Team
- Different Background
- Different Department
- Collaborative
- Holistic (Virtual – Reel)
- Professional Skills
- Industry 4.0
- Team Work
- Integrated Platform
- Cloud based
- Work at school, around the university, at home
- Any computer



ILICE: Now subject of educational science

Collaborative PBL experiment in a connected, multi cultural distant context

- ▶ Collaborative PBL in a connected, multi cultural distant context
- ▶ Joint project with UNAL and UAA using the ILICE framework



*) ILICE : Dassault Systemes' Educational Framework for Project Centric Learning on 3DEXPERIENCE Platform





Overview

Challenges

January 30, 2020

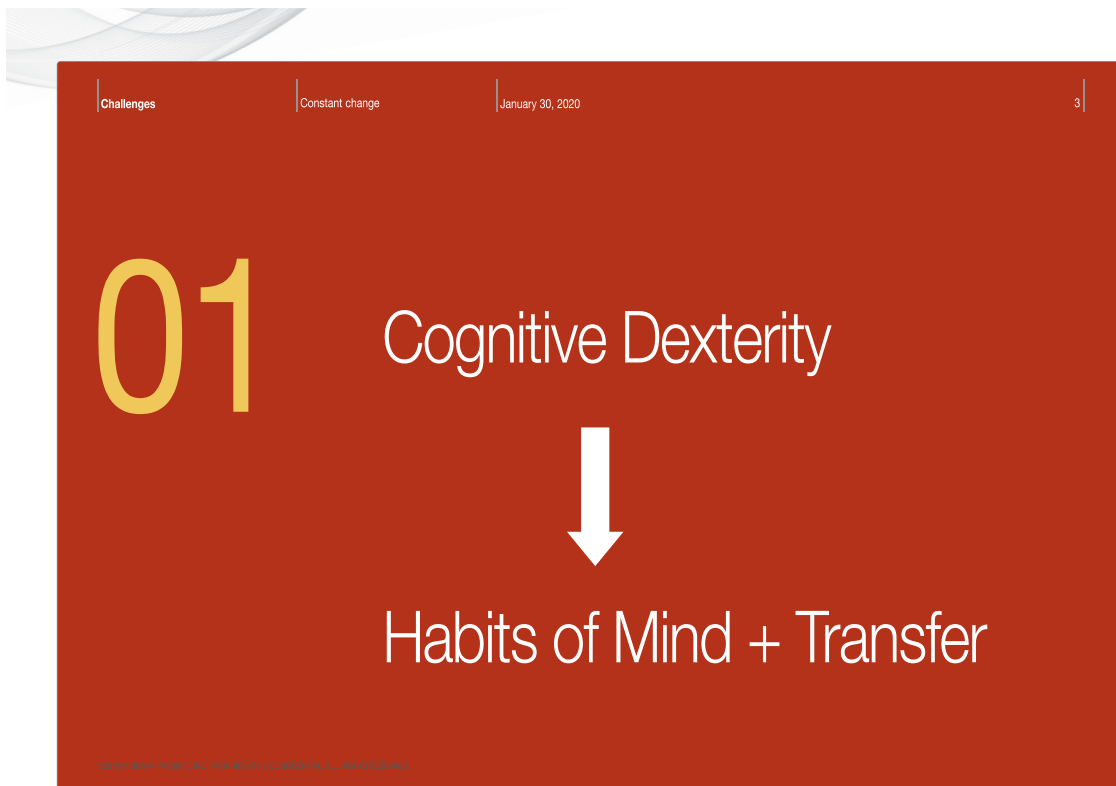
2

Challenges

01 Constant change

02 Attention deficit


03 Data overload



Challenges | Constant change | January 30, 2020 | 3

01

Cognitive Dexterity



Habits of Mind + Transfer

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This slide features a red background. At the top, a navigation bar contains the text 'Challenges', 'Constant change', 'January 30, 2020', and a page number '3'. The main content area displays a large yellow '01' on the left. To its right, the text 'Cognitive Dexterity' is written in white. A large white arrow points downwards from this text to the phrase 'Habits of Mind + Transfer', also in white. A small copyright notice is visible at the bottom left.



Challenges | Attention deficit | January 30, 2020 |

02

Attention & Focus



Active Participation

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This slide features a dark green background. At the top, a navigation bar contains the text 'Challenges', 'Attention deficit', 'January 30, 2020', and a vertical line. The main content area displays a large yellow '02' on the left. To its right, the text 'Attention & Focus' is written in white. A large white arrow points downwards from this text to the phrase 'Active Participation', also in white. A small copyright notice is visible at the bottom left.

Challenges | Data overload | January 30, 2020

03 Targeted feedback



Outcomes tracking

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Solution | The Minerva System | January 30, 2020 | 6 |

The Minerva System:

- Far Transfer: Habits of Mind + Cross-Contextual Scaffold
- Fully Active Learning: Unprecedented engagement
- Minerva Forum: Feedback and learning outcomes tracking

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The Minerva System

Multiple Offerings

January 30, 2020

7

Learners at Every Stage


Pre-University Students	Undergraduate Students	Graduate Students	Professional Learners
Bedrocks	Minerva Schools at KGI Collegiate Accelerator	Masters of Decision Analysis Custom masters programs	Leadership Accelerator Custom executive education

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Kenn Ross
kenn@minervaproject.com

www.minervaproject.com

Thank you.



MINERVA PROJECT

ARIZONA STATE UNIVERSITY

Educational Innovation

Dr. Minu Ipe
Knowledge Enterprise Architect
Advisor to the President





Demand for higher education
240 Million to **594 Million** by 2040



375 Million global workers may have to change jobs due to automation

54% of employees will need major upskilling or reskilling

3



65%

Estimated percentage of children who will ultimately perform new types of jobs that do not yet exist.

ASU

The number of people aged 60 years or older will rise from 900 million to 2 billion by 2050.

(moving from 12% to 22% of the total global population).



ASU



Climate changes threatens access to clean air, safe drinking water, food supply and shelter.

It is already causing rising sea levels, more frequent and extreme weather events, heatwaves and droughts, forest fires and an increase in diseases.







**118 years to achieve global
gender pay equity.**

9



**What role will institutions of higher
education play in addressing these
challenges?**

**How can we organize ourselves to
respond effectively?**

10



ASU's Story

Shift in design logic.

Shift in mindset from what should be to what could be.

ASU Charter

ASU is a comprehensive **public research university**, measured not by whom it excludes, but by **whom it includes** and how they **succeed**; advancing **research and discovery** of public value; and assuming **fundamental responsibility** for the economic, social, cultural and overall health of the **communities** it serves.

Design aspirations

Leverage Our Place

ASU embraces its cultural, socioeconomic and physical setting.

Transform Society

ASU catalyzes social change by being connected to social needs.

Value Entrepreneurship

ASU uses its knowledge and encourages innovation.

Conduct Use-Inspired Research

ASU research has purpose and impact.

Enable Student Success

ASU is committed to the success of each unique student.

Fuse Intellectual Disciplines

ASU creates knowledge by transcending academic disciplines.

Be Socially Embedded

ASU connects with communities through mutually beneficial partnerships.

Engage Globally

ASU engages with people and issues locally, nationally and internationally.

13



Access & Student Success

Increase in access



Increased enrollment in 16
years

55,491 to 120,000

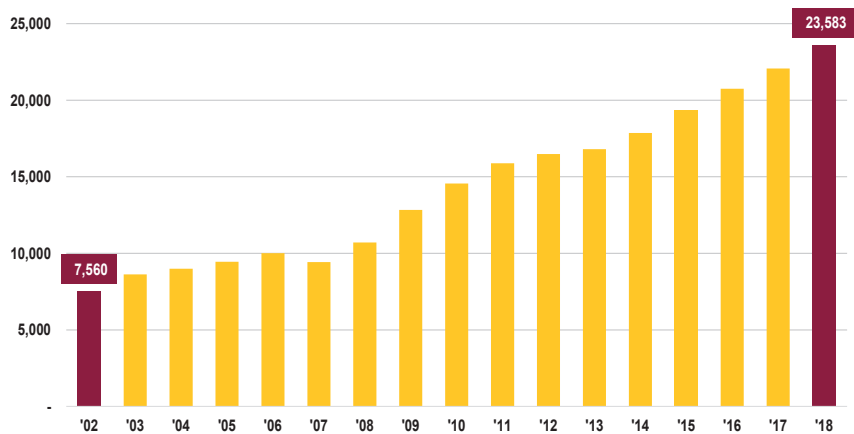


15

ASU

Number of ASU first-generation students has more than tripled

First-Generation Students at ASU (2002-2018)

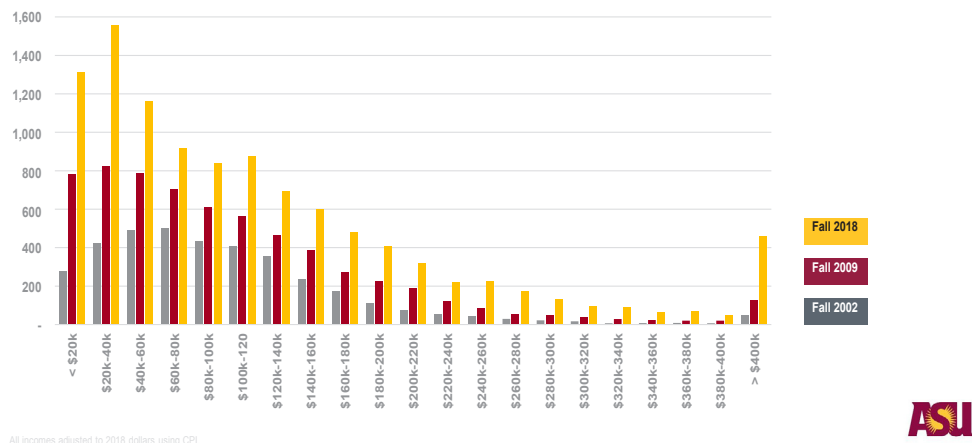


16

ASU

ASU is far more accessible to low-income students

Freshmen Enrollment by Income (2018)



Contributing to student success

4-year graduation rate is up by 85% since 2002

Approximately 50,000 online students

\$ 2.5 Million invested in student entrepreneurial projects in last 10 years

87% of students seeking jobs receive an offer within 90 days of graduation

830

degree programs

- >350 undergraduate
- >480 graduate degrees & certificates
- >200 degree programs offered online

Our approach

Innovate in every way we can

- Digital innovations
- Lowering barriers to entry
- ASU Prep Academies, on ground and digital
- Engaging partners who share our mission
- **Learning Enterprise for lifelong learning**

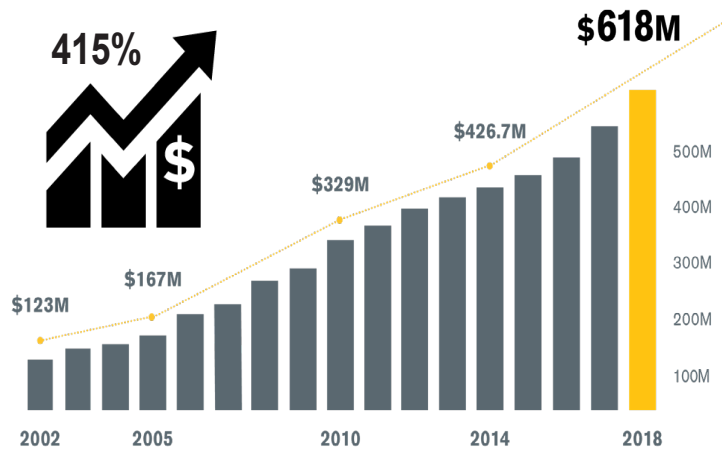


19

Research and Discovery of Public Value

Research impact

ASU is one of the **fastest-growing research enterprises** in the United States, more than quintupling its research expenditures since 2002.



21



Faculty excellence

4,700 faculty

5 MacArthur fellows

5 Nobel laureates

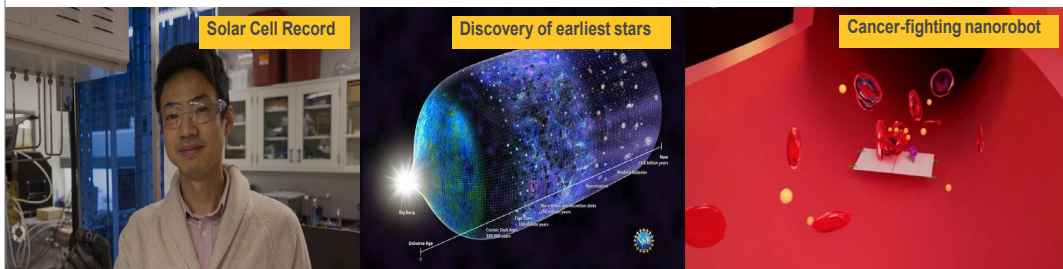
7 Pulitzer Prize winners

22 National Academy of Sciences members

22

Ground breaking research

Game-changing, use-inspired discovery



Top 10 university in global patent rankings

– U.S. National Academy of Inventors and the Intellectual Property Owners Association

23



Advancing interdisciplinary work

25 interdisciplinary schools
160+ interdisciplinary institutes,
initiatives and centers



Engaging the Community

Social engagement

514

community engaged programs
that involve students



21.3 million hours
student engagement across
socially embedded activities (2018)



Growing through partnerships

Corporate Partnerships



+ 500 more

Academic Alliances

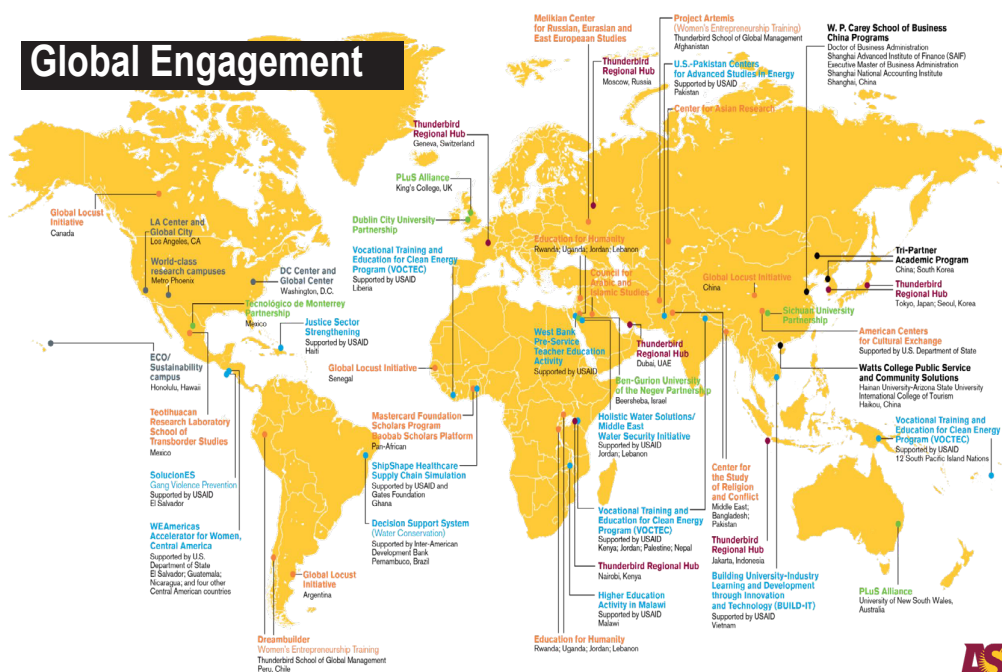
PLUS
ALLIANCE

UNIVERSITY
INNOVATION
ALLIANCE



27

Global Engagement



● Education and Research ● International Development ● Strategic Partnership ● Thunderbird Regional Hubs ● Specialized Degree Programs ● Campuses and Centers



Economic impact



\$3.8 billion

Economic impact on AZ gross product in FY 2017



49,320

Jobs created in FY 2017



231,000

ASU graduates worked in Arizona in 2016

They earned an estimated **\$13.8 billion** and paid approximately **\$1 billion** in state and local taxes

Source: ASU Office of University Economist

29



FY'19

301

invention
disclosers

52

Standalone licenses
and options

129

patents

18

startup companies

Source: Skysong Innovations

#1 in the U.S. for innovation

ASU ahead of Stanford and MIT

— U.S. News & World Report, 5 years, 2016–2020



Largest public university in the U.S.



Keys to our transformation and ongoing evolution

WHY

Purpose driven institution
(Charter & Design Aspirations)

HOW

The ASU Innovation Mindset

Deliberate approach to design

Steady, visionary, leadership from the president

Deep pool of leaders aligned with the charter and mission of the institution

31

How can we become an engine of social transformation and economic success?



Relentless focus on innovating our way into the future.

32



Thank You

2020 **WUPC**

Sun Moon University Innovation and Future Talent

Glocal Platform for the Global Servant Leaders
University Leading the Local Community and Industries

Dr. Ki-Yong Yoon
Professor, Sun Moon University

 **SUN MOON UNIVERSITY**



Table of content


Glocal Platform for the Global Servant Leaders
University Leading the Local Community and Industries

01 Introduction to Sun Moon University

02 Innovation Processes at Sun Moon University

03 Globalization of Sun Moon University

04 Globalization “Renaissance” and Future Talents





01 Introduction to Sun Moon University

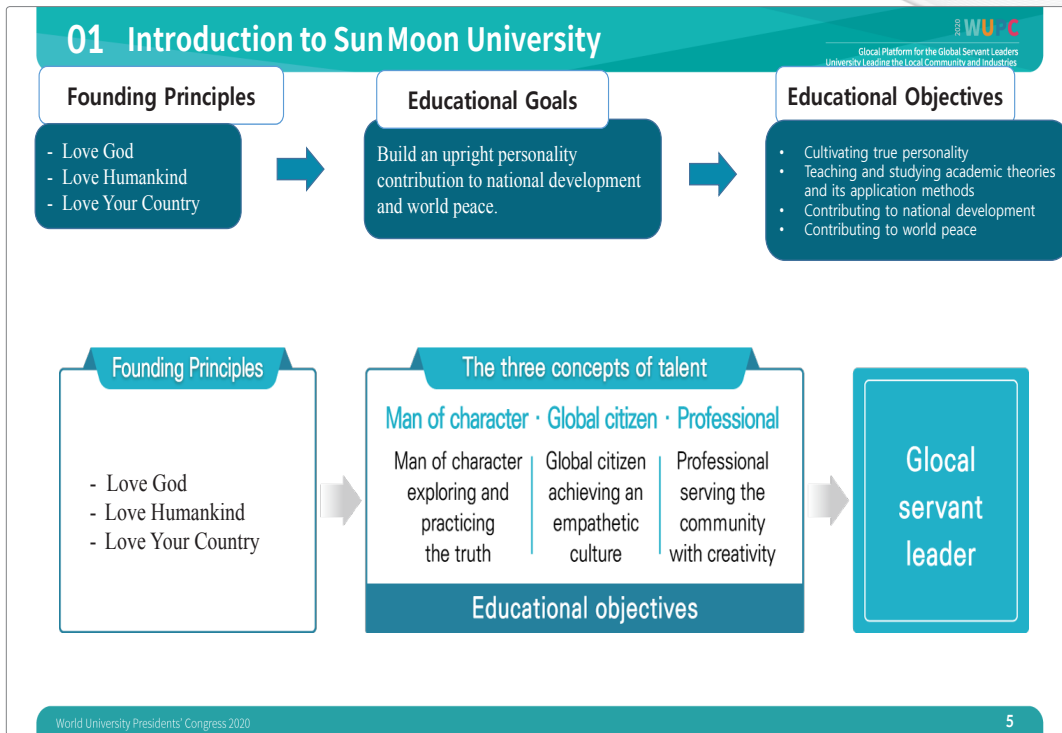
WU·C
Global Platform for the Global Servant Leaders
University Leading the Local Community and Industries

- 1972 Sunghwa Seminary Established
- 1986 Name was changed to SunMoon University
- 1991 SunMoon University Accredited as a Collegiate University
- 1995 SunMoon university was relocated at Asan Campus
- 2012 Inauguration of Dr. Hwang Sun-Jo as the 7th president of SunMoon University

Current capacity: Undergraduates-8,248 / Graduates-647

Universities: Colleges (7), Divisions (13), Departments (24), Majors(20), Recruitment Units (32)

Graduate Schools: Graduate School of General Studies, Graduate School of Theology,
Graduate School of Education, Graduate School of Glocal Integration



02 Innovation Processes at Sun Moon University

WU·C
Global Platform for the Global Servant Leaders
University Leading the Local Community and Industries

In a changed environment of the 21st century, what kind of educational vision does Sun Moon University offer?

- How can the founding philosophy (Love God, Love Humankind and Love Your Country) be realized?
- In the Age of University Innovation, what innovation strategies are we concerned about?
- How will the essence of university education change during the 4th Industrial Revolution?
- How will University education contribute to solving problems of the global community?

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7

02 Innovation Processes at Sun Moon University

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Global Platform for the Global Servant Leaders
University Leading the Local Community and Industries



Began 5 Tier “Innovation Process”

Before 2012: Motivational level of personnel, self-esteem, Direction of the University?

1| Innovation through Vision Setting

2| Innovation in relation to National Projects (GSP.)

3| Educational Innovation

4| Student-centered Innovation

5| Innovation through Industry-University Cooperation



Increased self-esteem



Improvement of University's reputation



Become a 'Competitive University' with Sustainable Development

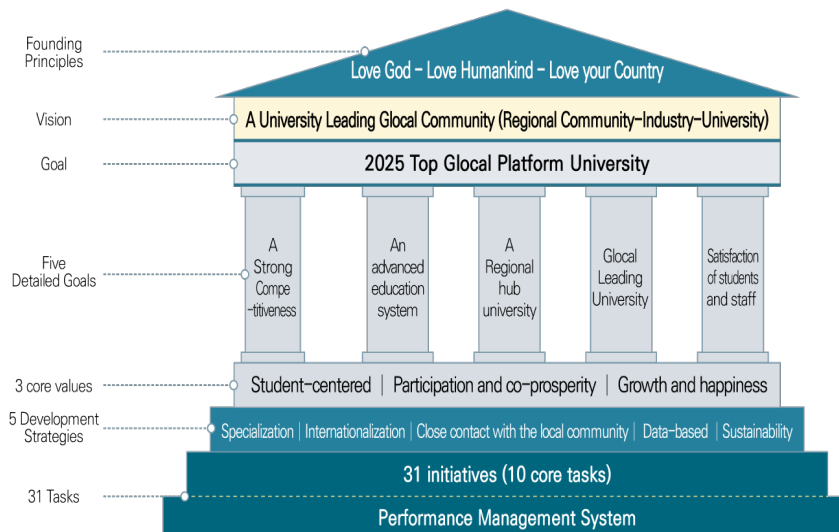
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02 Innovation through Vision Setting

WU C
Glocal Platform for the Global Servant Leaders
University Leading the Local Community and Industries

A New Vision Based on the Founding Principles



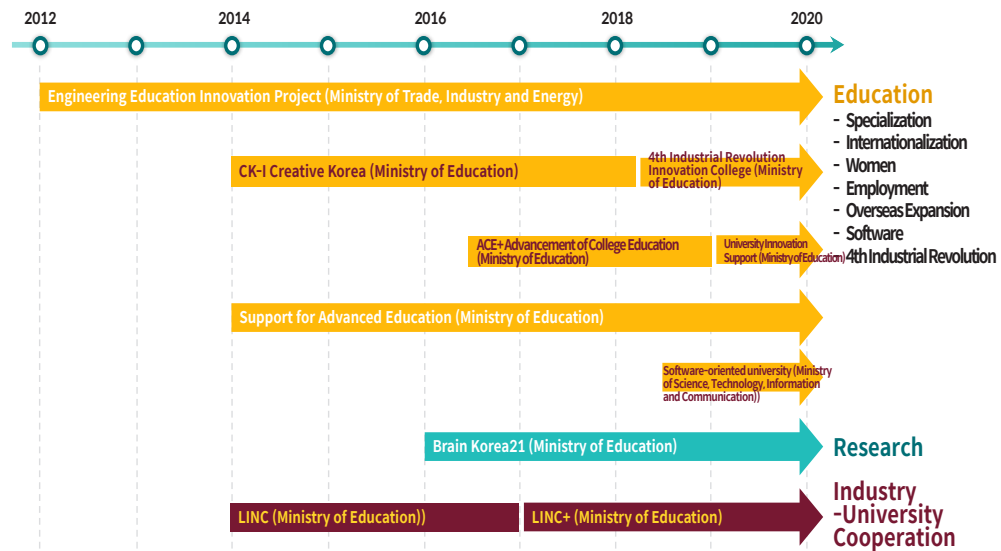
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02 Innovation in relation to National Projects (GSP.)

WU C
Glocal Platform for the Global Servant Leaders
University Leading the Local Community and Industries

National projects carried out by SunMoon University



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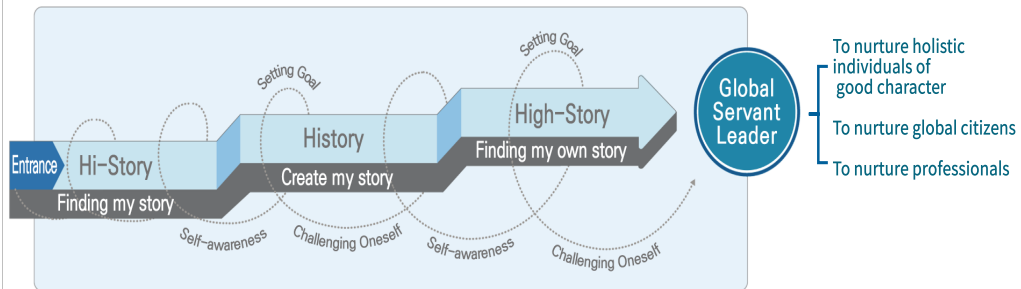
10

02 Student-centered Innovation

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University Leading the Local Community and Industries



「Global Servant Leader」 Educational Model to Cultivate Oneself (Self-directed life design)



- | | | |
|----|---------------------|---|
| 01 | Self-awareness | Objective self-awareness through self-diagnosis, setting effective vision, and strategy |
| 02 | Setting Goal | Progressive goal reaching process to improve confidence and self-esteem |
| 03 | Challenging Oneself | Problem solving process through self-choice, and voluntary participation |

02 Innovation through Industry-University Cooperation

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University Leading the Local Community and Industries



02 Educational innovation

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Global Platform for the Global Servant Leaders
University Leading the Local Community and Industries

Innovation of the education system

- **The Reorganization of the College System**
 - Global Business College, SW Convergence College, Initium College of Liberal Arts
- **A.C.E. System, Academic Flexibility**
 - * Advanced · Cooperate · Especial Course

Curriculum Innovation

- Capacity-based curriculum
- Industry-University-friendly (social demand tailored) curriculum
- Problem-solving curriculum

Innovation in educational performance

- Data-based educational performance analysis
- Quality management through three major certification systems
 - Global Servant Certification, Curriculum Certification, Course Certification

Innovation in Education Specialization

- Establish support system based on department specialization.
- Brand Department, Department of Self-Initiative Competitiveness.

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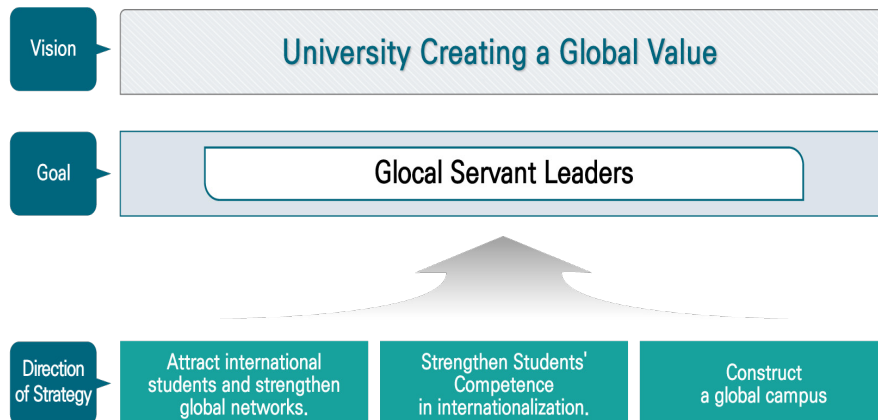
13



03 Internationalization of Sun Moon University

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University Leading the Local Community and Industries

→ The Vision of Internationalization at Sunmoon University



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15

03 Internationalization of Sun Moon University - The Introduction of the 3+1 Program

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University Leading the Local Community and Industries

Beyond race and borders

University that communicates with the world



3 + 1 Study Abroad Program

Language Department: All students will have the chance to study abroad for a year.

Other departments: Students who meet certain qualification criteria can study at an American university for one year regardless of his or her major.
(The Tuition at Sun Moon will substitute that of the college abroad



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03 Internationalization of Sun Moon University - Establishment of a global network

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University Leading the Local Community and Industries

➔ AUF's Vision and Activities (1998 - 2000)

University Presidents' Meeting

1996	Inaugural Ceremony of WUF : Montevideo Declaration	Uruguay (Montevideo)
1998	AUF (Asia University Federation) Inaugural Meeting	Taiwan (Taipei)
1999	University Networking for an Asian Community	Philippines (Manila)
2000	Higher Education in Asia & Globalization	Korea (Yeoju)
2001	The UN, East Asia and World Peace in the Age of Global Governance	Thailand (Bangkok)
2002	Dialogue among the Civilizations: The Role of Universities	Korea (SMU)
2004	Enhancing Competitiveness and International Education in Higher Education	Malaysia (Kuala Lumpur)
	University Reform: Libalization and International Education	China (Beijing)

Academic Conferences

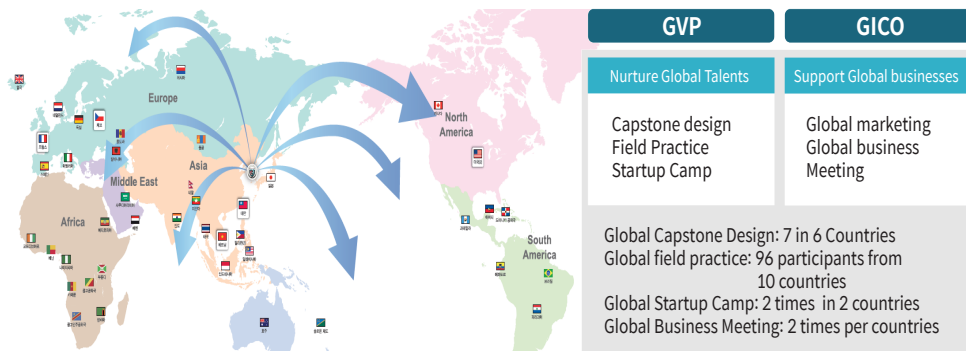
1999	International Conference of Women's Presidents. ("towards a new paradigm value centered education")	(Seoul)
1999	International Conference of Women Scholars	(Seoul)
2000	Asian University Student Forum ("youth and national development")	(Sun Moon Uni.)
2001	UN Conference ("UN, NGO, world peace")	(Bangkok)

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03 Internationalization of Sun Moon University - Expanding the Global Network

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University Leading the Local Community and Industries



■ GICO : Global Industry-university Cooperation Office

- Establishing Global Hub with Local GVPs
- Available in 8 Countries (USA, France, Czech, Vietnam, Taiwan, Iran, Singapore, China, Uzbekistan)
- Plan for additional installation of GICO in Asia: Malaysia, Indonesia, etc

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03 Internationalization of SunMoon University – Attracting International Students

2020 WU · C
Global Platform for the Global Servant Leaders
University Leading the Local Community and Industries

Global Sun Moon

Ratio of International Students Ranks 1st among local private universities
(University Evaluation from the JoongAng Ilbo, 2017)

1,344 International Students from 73 Countries are Enrolled in SunMoon University

- MOU with 190 universities from 49 countries
- 48 Global Vice-Presidents from 43 countries
 - Eminent people worldwide have been appointed as Global Vice-Presidents
 - Overseas experience offered for enrolled students and overseas employment opportunities for alumni
 - About 100 students been employed overseas since the introduction of the Global Vice-President system
- G-school(mentoring program for international students)
 - A program in which Korean students teach the Korean language to international students and also exchange cultural knowledge with them
- Awarded the International Education Quality Assurance System (IEQAS) twice in a row
 - Period of certification: 2014 – 2020
- Visa issuance procedures for universities with IEQAS are much more simple
- The Test of Proficiency in Korean (TOPIK) level of our international students ranks 2nd in Korea

Study Abroad Program

Global Frontier	International and Korean students make teams and explore foreign countries during the vacation
Global Action Together	Students decide on a global issue related to their major and go abroad to discover a creative way to propose solutions for it.
From The Beginning	Beginners in English receive intensive classes for basic English conversation.
Step Up	This program offers intermediate English courses for 4 weeks which include English presentation skills, discussions, and so on.
3+1 Regular Curriculum Study Program	Students who are fluent in English can take regular undergraduate courses at one of our English speaking sister universities for a year.
3+1 (7+1) Major Study Program	Students in the Division of Foreign Languages have a chance to study abroad for one year or one semester for their language education.
2+2 Major Study Program	Students can obtain dual degrees from both Sun Moon University and one of our sister universities by studying 2 years at each university

03 Internationalization of SunMoon University - Korean Language Institute

2020 WU · C
Global Platform for the Global Servant Leaders
University Leading the Local Community and Industries



Korean Language Institute

1989. 03. 20 Opening of the Sun Moon Korean Language Institute (SM-KLI)
2003. 08. 06 Opening of SM-KLI at the Mongolian National Agricultural College
2005. 08. 22 Opening of branch office at Shandong University in Shandong Province, China
2011. 02. 21 Selected as an Institute to teach Korean to GKS (Global Korean Scholarship) under-graduate students
2013. 04. 30 Selected as an Institute to teach Korean to GKS (Global Korean Scholarship) graduate students
05. 13 Selected as a TOPIK (Test of Proficiency in Korean) test center
2019. 03. 20 30th Anniversary Event
07. 09 Designated by the Ministry of Culture, Sports and Tourism as Kunming Sejong Institute



Current status of international students at the Korean Language Institute (average of students between 2016-2018)

Categories	2016	2017	2018	2019-spring (Estimated)	Remarks
Total number of students	497	515	620	816	※ The total number of students includes exchange students
Total number of students	192	258	381	563	
Students studying at their own expense	187	179	158	158	
Hyo-Jeong (Wonmo) Scholarship Students	94	57	70	80	
Global Korean Scholarship Students	25	23	11	15	

03 Internationalization of SunMoon University - Outbound Status



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〈International exchange and overseas dispatch〉

Categories	Name of Programs	2015	2016	2017	2018	2019
Major/ Employment	3+1 / 2+2 Programs	237	240	242	242	200
	Overseas Training by Majors	176	219	198	427	302
	Global Learning Camps	47	16	2	93	295
	Subtotal	460	475	442	762	797
Language	Language Learning (From beginning)	2	5	96	80	79
	Language Learning (step-up)		16	11	40	40
	Exchange Learning	26	32	34	33	30
	Long term language training				3	
	Sun Moon Fines Convergence Training Program	87	87		20	97
	Subtotal	115	140	141	176	246
Liberal art	Global Frontier	19	18	20	30	39
	Global Action Together		14	14	46	20
	Excellent Dream Overseas Training, Overseas Social Service Work	76			38	81
	Vision Finder		30			
	Subtotal	95	62	34	114	140
Total		670	677	617	1,052	1,183

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2020 WUPC

04 WORLD UNIVERSITY PRESIDENTS CONGRESS 2020

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Globalization "Renaissance" and Future Talents

04 Internationalization “Renaissance” and Future Talents

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2019 Global Capstone Design Program

• Purpose

- Promotion the internationalization of capstone design through joint capstone design courses with overseas universities and institutions.
- Cultivate global human resources through exchange programs with overseas universities and institutions on a variety of different issues.
- Cultivate a team for each major, develop ingenuity in the depths of the major, or cultivate a multidisciplinary team with a blunt convergence mind.

• Results : 7 programs/ 122 participants / 6 countries, 7 universities



Taiwan



Russia



Uzbekistan



Slovakia

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Global Startup Camp, Field Training, Capstone Design



Global Startup Camp - crowdfunding

Invited students from Turin polytechnic university in Tashkent
Global Startup Camp (In-bound Type)

Learning the basics to lay the foundation for commercialization of early start-up items

Mock crowdfunding practice and funding scholarships



International Invention Exhibition In Germany

Fostering Startup Talents who possess global competencies and global Minds

Participation in an international invention exhibition.
Items improvement through a Global Startup Camp

Advertising outstanding items of future startup Talents and market exploration

Received the Grand Prize at the international invention exhibition in Germany (and other special awards)



Educational Achievements of the Industry-University Cooperation



- Global Field Training: 10 Countries, 96 people (25 institutions)
(Countries represented: Canada, Japan, Singapore, Paraguay, Philippines, Vietnam, USA, Europe)

- Global Capstone design: 6 Countries, 7 Programs 215 people.
Countries represented: Taiwan, Philippines, Russia, Uzbekistan, Slovakia, USA)

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Smart Fusion Technology Sector Global Technology Exchange

Tashkent Turin Polytechnic University Joint Talent Development Agreement

- Education Partnership Agreement with Dassault System (2019. 7.)
- Voted on 3D Blueprints Education Curriculum and Mutual Development Assistance



SunMoon University, Turin University (U.T.S.) Mutual 3D Blueprint Education program

- 31 Turin University Students + 13 Smart Car Engineering students completed the training. (2019. 7. 29. ~ 8. 24.)
- 18 Turin University students earned M.D.E (CATIA certification), and 15 self-driving cars were produced.



France 'Dassault Systemes' Educational Agreement

- Opened GICO within Turin University (2019. 3. 25.)
- Voted on Uzbekistan UzAuto Joint Development Agreement (2019. 3. 26.)



UzAuto Digital Twin 3D Design Training

- Provided education for 5 UzAuto Co., Ltd. Executives & employees.
- Conducted 'Digital Twin' based education through the Smart Car Engineering department faculty (2019.07.31 to 8.11).
- Advanced 3D Design training and self-driving car design training (2018.8.12 ~ 8.22).



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Uzbekistan Turin University autonomous (smart) vehicles Education Program

- **Objectives**
 - Export evidence-based, socially customized, and industrial-tailored curriculum to Turin University in Uzbekistan by opening a special summer course for Turin University students.
 - Spread basic education about the core technology of the 4th Industrial Revolution - Digital Twin technology.
- **Participants:** 59 students (Turin University students)
- **Supervision and Hosting Department:** College of Software, Smart vehicles Engineering Department



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Global Business Sector Academic and Industrial Collaboration – Small Business Support

Global Marketing Project



2019 Sun Moon University Vietnam Trade Mission

- **Joint Ownership and Administration:**
Korea Industrial Complex Corporation, Chungcheong Provincial Headquarters,
Sun Moon University LINK + Business group.
- **Participants:** 11 Domestic small businesses.
- **Key Content:** Corporate matching business meetings and meetings with local agencies.
- **Outcomes**
 - Negotiations on exports of participating companies in underway.
 - Korea Industrial Complex Corporation is reviewing the development of overseas industrial complexes in Vietnam.

2019 Vietnam Export Consultation Conference

- **Participation:** 17 Vietnamese buyer companies, 22 domestic (Korean) small businesses.
- **Outcomes**
 - A large number of export consultation participant companies are continuously engaging in agreements with Vietnamese buyers via phone and email.
 - Some participant companies are negotiating agreements through the Global Industry University Cooperation Office (GIUO) and the Global Studies department chair.

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Evaluation: SunMoon University has...

- Introduction of a pioneering international education programs (3+1)
- Promotion of the new programs in order to meet to the strong trend of globalization.
- Foundation of a inter-universities' coalition
- Strengthening of the Network between universities of Southeast Asia, Eurasia, etc.
- Global Spread of the education program : Turin University (Uzbekistan), King Saud Univ.(Saudi Arabia)
- Built the foundation for medium- and long- term exchange and cooperation as a stable and systematic cooperative body
- Contributed to the understanding of business and the fostering of future leaders through various programs and activities as well as the promotion of exchanges among top executives, professors, students and scholars.



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SunMoon FLY Program

< Abbreviation of the invitation for SunMoon Members to “Find & Live Your Dream” >

support

Starting from next year, **ALL STUDENTS** at SunMoon University (including foreign students) will receive support to **STUDY OVERSEAS AT LEAST ONCE** while enrolled. (90% scholarship)

In principle, all students who have a desire to study abroad should be able to do so without discrimination.

semester

Through the **GLOBAL SEMESTER SYSTEM** (name pending), students can participate in an **INTENSIVE PROGRAM FOR 2 WEEKS DURING WINTER AND SUMMER BREAK.**

tracks

Separate existing overseas programs into tracks 1~4 and operate study abroad programs **USING THE 4 TRACKS AS THE CORE** to enhance students’ understanding of the overseas programs.

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Core Competency Groups		Definition	Core Competencies
S	Personality	The 1 st competence group contributing to community progress through sustainable living and self-development community personality capacity	Self-development capacity Patriotism
T	Creativity	The 2 nd competence group of enhancing professionalism by the leverage of resources and information technology and creatively solving the problems	Resources information technology utilization capacity Problem-solving skills
A	Glocal	The 3 rd competence group of being equipped with understanding of the community and global mindset to lead the ‘Glocal community of regional community, industry and university’	Regional symbiotic capability Global competence
R	Communication	The 4 th competence group of achieving a common goal through effective communication and collaboration	Communication skills Teamwork skill

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Vision

Global Value Achieving Pioneer University





2020 World Peace Academic Conference

IAAP General Assembly

Inaugural General Meeting

International Association of Academicians for Peace (IAAP)

Moderator: Dr. Tyler Hendricks
SunHak UP Graduate University, USA

Keynote Speech

Dr. Sung-Bae Jin
Chairman, Hyo Jeong Academic Foundation, Korea

Congratulatory Remarks

Dr. Thomas Walsh
UPF International Chairman, USA

Congratulatory Remarks

Dr. Sun-Jo Hwang
President, Sun Moon University, Korea

Inaugural Proclamation of IAAP

Dr. Thomas Selover
President, PWPA-International, USA

Signing Ceremony of the Resolution

Commemorative Photo

Co-Chairman, 2020 World Peace Academic Conference Preparatory Committee



Dr. Sung-Bae Jin

Chairman, Hyo Jeong Academic Foundation, Korea.
President, Unification Thought Institute International, Korea.



Dr. Sun-Jo Hwang

President, Asia University Federation (AUF), Korea.
President, Sun Moon University, Korea.

Keynote Speech

The Modern Science and the Renaissance of Godism

Sung-Bae Jin, Ph.D.

Chairman, Hyo Jeong Academic Foundation, Korea

I am deeply honored and highly delighted to be able to address the Inaugural Convention of the 2020 International Association of Academicians for Peace here at KINTEX in Seoul, Korea. Today, the topic of my Keynote Address is “The Modern Science and the Renaissance of Godism.”

At this point I wish to address the issue of presuppositions in contemporary science. May I note first of all that Newtonian mechanism is the presupposition wielding the predominant influence in contemporary science. Isaac Newton held that the main feature of natural philosophy was “to argue from phenomena without feigning hypotheses, and to deduce causes from effects, till we arrive at the very quiet cause.” We may see a common thread of causality in Laplace's ambition, Darwin's ideas, and Freudian psychoanalysis. These together produce the picture of an evolving universe endowed with no purpose and developing without any specific divine intervention.

The second point I wish to note is anti-teleological determinism. We saw Galileo abandon the teleological approach for efficient causality, neglecting the “why” for the “how.” Thus anti-teleological determinism refers to the triumph of the mechanistic view over the animistic, of matter over spirit. Even though the rigor of determinism has been somewhat tempered by quantum indeterminacy, still mind is regarded as dependent on the mechanistic system of the physical brain.

Thirdly, I want to point out the influence of positivism, which arose in reaction against theology and metaphysics. In the 1930's, the Institute for the Unity of Science was set up under positivist auspices. Their original thesis of the unity of sciences was based on the belief that all scientific concepts are definable in the strictest sense of the language of sense data, expressed in terms belonging exclusively to positivistic language, namely, the physical language. In general, the logical empiricists came to realize that most terms in scientific theories are neither definable by, nor reducible to the so-called positivistic language. Today the claims of the Vienna Circle look rather naïve, and it has recently been dissolved. Yet logical positivism still remains powerfully influential on the ways of scientific thinking.

In contrast to general knowledge, despite the fact that science is a process of researching theories to explain objective facts, scientists carry out their scientific research based on such a presupposition, which, as I mentioned above, is mechanism, anti-teleological determinism, positivism, etc. These presuppositions are none other than the well-worn paths of materialism and atheism. Materialism and atheism are value systems of a kind that deviates from the field of science where research is made based on objective facts. And this is indeed the real state of affairs in today's science, and the irony of it — for science pretends to emphasize *value-neutrality*. The more science excludes God and rejects the science-theism paradigm, the more it is hailed as the most scientific of all sciences. Such is the climate of the age we are living in now.

Science today boasts of objective knowledge under the banner of “value-neutral science.” In western philosophy in general, any conflation of fact and value brings about a confusion of categories, and value assertions amount to empty talk in the sense of logical positivism. Generally speaking, one would assert that “science is value-neutral”; but this value-neutrality of science is itself a value judgment, because “value and fact cannot be separated.” Maxwell equates such value-neutrality with value-blindness, or value-insensitivity.

We reject the presuppositions of modern science, which lead to mechanism, reductionism and materialism, not because they threaten religion but because they are fallacious strategies which, by demolishing all metaphysics, demolish the very science they set out to account for. Both science and religion are human enterprises, which pursue truth, arising from puzzlement about this world. In the light of the Science of Godism, we see the prospects for harmonizing science and religion. If I point out the causes of the failure of the unity of the sciences in the Vienna Circle from the standpoint of Godism Science, it is the philosophical foundation of their mechanical materialism and materialistic positivism. If the science-atheism paradigm can be established for scientists, conversely the science-theism paradigm could also be established.

Here, we cannot but pay attention to the insights of Rev. Dr. Sun Myung Moon and Dr. Hak Ja Han Moon, who in the 1980's set out to build the edifice that is science upon the foundation of absolute values. And we should remember their tears and sweat as they have been devoting all their energies into creating a new civilization with God at the center, by advocating the International Conference on the Unity of the Sciences and investing a prodigious budget pursuing the “Renaissance of Godism.”

The “Renaissance of Godism” signifies that all the scholastic world and cultures must be newly established centering on God. God is the truth of all truths and the source of truth. The posture of learning how to define God is the beginning of all forms of learning and the foundation for solving all social problems. I would like to proclaim on the emerging world civilization, the Renaissance of Godism.

First, emerging world civilization, the most ultimate and realistically important subject in modern civilization is the matter of God, thus establishing the right conception of God. The philosophy to lead the world civilization must discover God, lost in modern civilization, and

adopt absolute values centered on God as its foundation. Out of an excessive emphasis on human reason, Western civilization has dethroned God, replacing Him with a humanist philosophy, even promulgating atheism and materialism.

Second, the *Science of Godism* refutes Newton's mechanism and Laplace's reductionism, not for the sake of disparaging the contributions made by these thoughts, but because they reverse the cause-and-effect relationship of the whole and the part. The *Science of Godism* supports the stance held by the theory of organism, not mechanism. Regarding the part and the whole because the entire universe is like one united organic body. The whole is in the subject position to the part and the part in the object position to the whole. The whole is not the total sum of the parts; instead, it is something that is “more” than the total sum of the parts and something that “surpasses” that total sum. This is the principle of life and the principle of the theory of organism. Thus, *Science of Godism* points out that scientific statements must begin anew starting from the basis that the entire universe is a unified structure.

Third, the reason why I place special emphasis on the emergence of the world civilization here is this: First of all, the creativity and energy to lead the world civilization lies hidden in the Pacific civilization, which is now just emerging Western civilization, which began with the magnificent Mediterranean civilization of Greece and Rome, and developed through the age of the Atlantic civilization, has reached its limit and is at a standstill. The philosophy to lead a world civilization must be able to embrace both the civilizations of the East and West, that is, materialistic civilization of the West and spiritual civilization of the East.

The first task I wish to commission the International Association of Academics for Peace, is to launch the Book Project. This volume is one of a series of books intended to witness to the greatness of the revolutionary thought known to the world as the *Science of Godism*. Each book in this series is written by a distinguished scholar and is published within the scope of a broad category of science, such as physics, biology, philosophy, theology, etc. systematizing every academic field of study from the standpoint of the *Science of Godism*.

We will be approaching you in thanks and honor of your participation in this great forum with a vision to the future of seeding this new academic and literary movement. You are the forefront scholars, scientists, creative writers and producers of the new scholarly movement bringing God back into the center of the post-modern scientific paradigm. We depend on your academic contributions in accordance with your conscience, experience and wisdom. We invite you to join in this global enterprise waking up the world to the dawn of new paradigm science! Thank you.

Congratulatory Remarks

Dr. Thomas Walsh

UPF International Chairman, USA

It's exciting to be here. Thank you Dr. Molina, you gave a great talk at the at the outset and very important we could feel from that moment for this summit the power and importance of very solid academic research that requires years and years of dedication and it results in the kinds of discoveries and contributions that you and many others in this room represent. It is wonderful to see Dr. Jin Sung-Bae, thank you for your leadership at this time for the world summit. I am very happy to see Dr. Hwang Sun-Jo who's been leading the Sun Moon University traveling the world building connections to universities all over the world. Dr Kaufmann we went to school together at Vanderbilt. Dr. Ward, Dr. lay, Cheryl Lao you did not changed, i changed I but you look younger and as beautiful as ever. So anyway, great to be here.

I do not have a lot to add. I thought Dr. Selover did a great reading of that resolutions, I enjoyed listening to it, so thank you. I hope this summit has been enriching and stimulating and we see the potential of this kind of interdisciplinary collaboration across sectors of professional fields and even the idea of interdependence applies to all our various areas of work within academia. I'm sure Dr. Hwang knows, you know, even university departments becoming more collegial and collaborative is a challenge, but this has been such an inspiration to me, this world summit and were able to attend SunHawk peace prize. Anyway, i see a bright future, i think we are lost without your work and your piece of this collaborative effort to bring peace. As some have said, it's not the governments, the state actors, but the non-state actors in some of that jargon that's used but we need every stakeholder and all those with assets to bring to the table that we can really make a difference and I think we bring something in this area of values that the world feels a little bit somehow the diversity of the world has tended to move away from a thick set of values but i think somehow we we're finding a way to cherish those values and including spiritual as well as moral values and yet not close in but we remain able to collaborate and work together across wide ranges of people because we have a telos or a kind of a teleological goal that we want to see this piece that everyone aspires to. So i applaud you Dr. Jin and all that you're doing and all of you gathered here, I see Dr. Oyamata, Bill lay and Tom ward and people that i see in church on Sunday and see you in a different hat. Anyway I'm just blabbering now but god bless you thank you let's work together.

Congratulatory Remarks

Dr. Sun-Jo Hwang

President, Sun Moon University, Korea

It is exciting to be here at World Peace Summit 2020. Thank you, Dr. Molina, for a great opening address. From that moment we could feel the power and importance of solid academic research that has required years of dedication resulting in the kinds of discoveries and contributions that you and many others in this room represent. It is wonderful to see Dr. Jin Sung-bae. Thank you for your leadership of Hyo Jeong Academic Foundation. I'm very happy to see Dr. Hwang Sung-jo who has been leading Sun Moon University, traveling and building connections with universities all over the world. Dr. Kaufmann was once my fellow student at Vanderbilt. Tom Ward, Bill Lay, Cheryl Lau, you have not changed but look bright and vigorous as ever. It is great to be here. I do not have a lot to add. I thought Dr. Selover did a splendid reading of the Resolution, which I enjoyed listening to. Thank you. I hope this summit has been likewise enriching and stimulating for all of you. We see the potential of this sort of interdisciplinary collaboration among professional fields stretching across sectors. Plainly the spirit of interdependence applies to all our various areas of work within academia. I am sure Dr. Hwang knows that university departments are becoming more collegial and collaborative. It was a challenge to organize, but this World Summit has been a personal inspiration to me. Were you able to attend the resplendent award ceremony for the Sun Hak Peace Prize? I see a bright future. I think we are lost without your work and your part in this collaborative effort to bring peace. As some have said, it is not chiefly government or state actors but the non-state actors who achieve real progress. But truly we need every stakeholder and all those who are able and willing to bring their assets to the table so that we can truly make a difference. I believe we bring something in this area of values to the world. The diversity of the world has tended to move away from a thick set of values, but I think we are finding ways to cherish those values and include spiritual as well as moral values, without narrowing down. We remain able to collaborate and work together across a wide range of people because we embrace a teleological goal, that we long to realize this peace that everyone aspires to. So, I applaud you Dr. Jin, and all that you are doing, and all of you gathered here. I see Dr. Yamada, Bill Lay, Tom Ward and people that I see in church on Sunday. Now I see you here with a different hat! God bless you and thank you. Let us work together.

[Applause]

Inaugural Proclamation of IAAP

We, the undersigned, as participants in World Summit 2020 sponsored by the Universal Peace Federation (UPF) convened in Seoul, Korea, on February 3-7, 2020, on the theme “Realizing a World of Peace and Reunification of the Korean Peninsula through Interdependence, Mutual Prosperity and Universal Values,” affirm our belief that academics, scholars and educators play an essential role in the building of a good society. The 2020 World Academic Peace Symposium, organized by the Hyo Jeong Academic Foundation as part of World Summit 2020, has brought together gifted, conscientious scholars and professionals from numerous disciplines, and together we are committed to working in collaboration to making the world a better place, addressing its most significant challenges, and promoting world peace.

We applaud the leadership of Dr. Hak Ja Han Moon, and her husband, the late Rev. Sun Myung Moon, for their vision and work over many decades to create “one family under God.” This includes their founding of UPF, an NGO in general consultative status with the Economic and Social Council of the United Nations. In response to this great leadership, we offer the following resolution:

WHEREAS, academicians, as scholars and educators, have played and continue to play a crucial role in the intellectual, moral and spiritual development of humanity, and

WHEREAS, academicians are called to guard against tendencies which may undermine or corrupt their core mission to search for truth, goodness, and beauty, and

WHEREAS, the contributions of academicians toward realizing peace through interdependence, mutual prosperity and universal values can only be truly effective in conjunction and partnership with conscientious leaders from other sectors of society,

WE THEREFORE propose to inaugurate the International Association of Academicians for Peace as a project of UPF, and to work in conjunction with the International Summit Council for Peace (ISCP), International Association of Parliamentarians for Peace (IAPP), Interreligious Association for Peace and Development (IAPD), International Media Association for Peace (IMAP) and International Association for Peace and Economic Development (IAED), and other like-minded associations that may be formed in the future.

The International Association of Academicians for Peace (IAAP) represents a new global interdisciplinary academic initiative aimed at contributing to the realization of a world of lasting peace.

We HEREBY affirm and resolve to uphold the following principles and objectives:

To establish programs that promote excellence in academic research for the benefit of humanity.

To promote the highest quality academic publications and academic teaching.

To build professional networks for academicians to foster a world of peace based on the ideals of interdependence, mutual prosperity and universal values.

To convene programs that advance these goals.

WE, THE UNDERSIGNED, endorse the proposal to establish a new association of academicians, scholars, thought leaders, university administrators and government officials to be known as the International Association of Academicians for Peace.

Signed this day, February 5, 2020, in Seoul, Korea.

