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UNESCO Chair on Education for Sustainable Development with the Earth Charter



*Essays, Papers, and Reflections on Education for
Sustainable Development and Ecological Civilization*

NAVIGATING SUSTAINABILITY

INSIGHTS FROM LNU TEACHERS AND STUDENTS

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Foreword

In the vast expanse of the universe, our pale blue dot, the Earth, stands as a beacon of life, teeming with diversity and interwoven with complex ecosystems. Yet, this beautiful planet faces unprecedented challenges in the 21st century — challenges that threaten not only our existence but also the vitality of countless other species with whom we share our home, the Earth. In the face of such monumental trials, the Earth Charter emerges as a lighthouse, offering a vision of hope and a pathway towards a more sustainable and harmonious future.

The Earth Charter is not merely a document, but it is a testament to our collective aspirations, a moral compass guiding humanity towards a shared vision of peace, justice, and environmental stewardship. Conceived through a collaborative effort involving individuals, organizations, and governments around the world, the Earth Charter embodies the wisdom of diverse cultures and traditions, encapsulating the fundamental principles that underpin our interconnectedness and responsibility to one another and to the planet.

Traditional Chinese thought has had a profound impact on the Earth Charter, with the philosophy of Laozi (also Lao Tzu) being particularly noteworthy. Laozi's ideas, as outlined in the “Tao Te Ching”, resonate with many principles of the Earth Charter. For instance, he emphasized the concept of “Tao” or the Way, which highlights the interconnectedness and interdependence of all things in the universe, aligning with the Earth Charter’s principles of ecological integrity. Additionally, Laozi advocated “wu wei” or effortless action, promoting harmony with nature and non-interference, which is in line with the Earth Charter’s emphasis on sustainable development.

Furthermore, the ideas of Zhuangzi (also Chuang-Tzu), a philosopher in Taoism, can also be seen reflected in the Earth Charter. Zhuangzi advocated “ziran wuwei” or natural spontaneity, emphasizing harmony with nature and non-interference with its processes, which resonates with the Earth Charter’s principles of ecological balance and environmental protection. He also emphasized the importance of understanding the deeper essence and respecting innate reality of the world, which fit into the Earth Charter’s emphasis on cultural diversity and the complexity of ecosystems.

Additionally, the teachings of Confucius, a prominent figure in Confucianism, have also influenced the Earth Charter. Confucius emphasized concepts such as “ren” (benevolence), “zhongyong” (moderation), and “li” (ritual propriety), promoting harmonious relationships between individuals, social order, and personal responsibility. These values are reflected in the Earth Charter’s emphasis on social justice, cultural diversity, and global cooperation. For example, Confucius once said, “to have friends come from afar is happiness, is it not?”, which emphasized respect for, hospitality and kindness to others. This also the Earth Charter’s pursuit of human dignity and social justice.

In summary, the philosophical ideas of ancient Chinese thinkers have been significantly embodied in the Earth Charter. Laozi's concept of Tao, Confucius’ teachings on benevolence and social harmony, and Zhuangzi's emphasis on harmony with nature all contribute to the principles of ecological integrity, social justice, and cultural diversity are all reflected in the Earth Charter, providing valuable insights and contributions to the promotion of sustainable development.

China’s engagement with the Earth Charter underscores its commitment to global environmental sustainability and the promotion of principles espoused by the Charter. As one of the world's largest economies and a key player in international affairs, China’s efforts towards sustainable development carry significant weight in shaping the future of our planet.

One notable aspect of China's approach to sustainable development is its concept of “Chinese-style modernization.” This vision emphasizes the harmonious coexistence of economic growth, social progress, and environmental protection, aligning closely with the principles of the Earth Charter. In practice, China has embarked on a path of development that seeks to balance economic prosperity with environmental preservation and social equity, demonstrating a holistic approach to modernization that integrates ecological concerns into its development strategies.

China’s commitment to ecological civilization, as outlined in its development plans and policies, represents a significant contribution to the principles of the Earth Charter. The concept of ecological civilization emphasizes the importance of harmonious coexistence between humanity and nature, sustainable resource management, and environmental protection. China's ongoing efforts in ecological civilization construction have led to notable achievements, including afforestation projects,

investments in renewable energy, and the implementation of green technologies to reduce pollution and mitigate climate change.

Furthermore, China's active participation in international initiatives aimed at addressing global environmental challenges reflects its commitment to the principles of the Earth Charter on a global scale. Through initiatives such as the Belt and Road Initiative (BRI) and the Asian Infrastructure Investment Bank (AIIB), China has advocated for sustainable infrastructure development and green investment practices, promoting environmental protection and low-carbon development across borders.

In conclusion, China's commitment to sustainable development and ecological civilization represents a significant contribution to the principles of the Earth Charter. Through its vision of "Chinese-style modernization" and ongoing efforts in ecological civilization construction, China serves as a beacon of hope in demonstrating practical pathways towards a more sustainable and harmonious future for all.

Liaoning University, guided by the motto of "Virtuous learning, diligent practice, leads to strength," is integrating the Earth Charter into its teaching, research, and social services, striving to contribute to the building of a community of shared future for mankind. We believe that through the efforts of higher education, we can cultivate generations of responsible and mission-driven global citizens who will work together to create a more harmonious and sustainable world.

This anthology consists of 11 research papers by faculty and 15 reports by students. Here we specifically emphasize the role of higher education in promoting the Earth Charter and shaping future leaders and global citizens. Liaoning University, as a top-tier comprehensive university in China, is committed to nurturing outstanding talents with international perspectives, social responsibilities, and innovative capabilities. At Liaoning University, we recognize that education involves not only imparting knowledge but also instilling values and codes of conduct in students. Therefore, we integrate the Earth Charter into our teaching and research by offering relevant courses, hosting lectures and seminars, conducting field research, and engaging in community service activities to cultivate students' environmental awareness, social responsibility, and global outlook. These papers serve as both interim summaries of the Earth Charter-related activities at Liaoning University in 2023 and as reflections and responses from both faculty and students at Liaoning University on the significance and spirit of the Earth Charter.

The contribution by Jeffrey Petts and Ma Shuang delves into the intrinsic values of rivers as portrayed in the Earth Charter, accentuating their symbolic importance and the influence of William Morris's philosophical aesthetics. They also explore the educational significance conveyed through "The River of Wisdom" in the digital era. Feng Daming's essay navigates the integration of sustainability into college-level chemistry education, fostering environmentally conscious chemists adept at addressing global challenges. Wang Yuming's piece, grounded in political philosophy, delves into the peril of technological risks in human civilization's trajectory, advocating for leveraging institutional advantages to combat internal risks and engage in global governance efforts. Ma Wenfei's analysis examines Japan's decision to discharge nuclear wastewater into the sea, emphasizing the role of Education for Sustainable Development (ESD) in shaping international law and addressing environmental challenges. Drawing on the Earth Charter's themes, Jiang Yiting shares insights into how it catalyzes personal reflection and interactive teaching approaches. Feng Daming's narrative traces the historical evolution of industrial ammonia synthesis, aligning its progress with Sustainable Development Goals (SDGs) and its pivotal role in sustainable chemical development. Yu Chaoyi underscores the imperative of environmental harmony, multiculturalism, and equity in societal sustainability, advocating for individual and collective efforts towards a more inclusive world. An Haiying encapsulates an educational initiative integrating ESD principles with the Earth Charter and systems thinking, fostering nuanced understanding and actionable steps towards sustainable development. Liu Cong reflects on the Earth Charter and ESD course program, while Zhang Huiying shares her pedagogical journey integrating the Earth Charter with real-world problem-solving. Han Yanan, in a letter format, narrates her volunteer and work experiences at Liaoning University and Fuxin City post-Earth Charter training, expressing aspirations for future growth and learning. Additionally, students from various disciplines have summarized their reflections and experiences of studying the Earth Charter through twelve articles, each from their unique perspectives.

This anthology seeks to explore the multifaceted dimensions of the Earth Charter, delving into its historical significance, its philosophical underpinnings, and its practical implications for global governance, environmental conservation, social justice, and sustainable development. Through a compilation of essays, reflections, and case studies, we aim to shed light on the relevance and applicability of the Earth Charter in

addressing the pressing issues of our time and in fostering a culture of peace and sustainability.

Higher education institutions play a crucial role in shaping future leaders as global citizens. By providing students with comprehensive education opportunities in which knowledge, skills and values of sustainability and global citizenship are intentionally fostered, we can nurture leaders who possess cross-cultural understanding and a global perspective, and steer international cooperation towards addressing global challenges for the common good.

Under the guidance of the Earth Charter, let us join hands and strive for the future of humanity and the Earth!

A handwritten signature in black ink, consisting of four Chinese characters: 俞兆杰 (Yu Miaojie).

YU Miaojie

President

Liaoning University

Shenyang, P. R. China

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President YU Miaojie

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Section I: Essays from Teachers



Global Aims and Beautiful Designs: The Earth Charter and William Morris

Jeffrey Petts and MA Shuang

The sacred and secular values of rivers are universal. Altogether, they are emblematic of the global aims of the Earth Charter. Its aims have a forerunner in the philosophical, environmental, and practical aesthetics of William Morris. The Charter's and Morris's aims are expressed in the panorama of riverine everyday lives in the artwork *Along the River during the Qingming Festival*. Its 21st century animated, interactive, digital version – *The River of Wisdom* – expresses the educative value of aesthetic appreciation of our harmonious working relationships with the natural world.

Global Aims

The global aims of the Earth Charter and the practical challenges it addresses resonate with age-old, universal values and issues associated with the planet's rivers, especially its overarching environmental aims for “respect and care for the community of life” and “ecological integrity”. The Charter aims also include “social and economic justice”, “democracy, nonviolence and peace”. Its concluding “Way Forward” rightly acknowledges that harmonising these aims presents a complex range of practical problems involving “difficult choices”. In that problem of harmonization, rivers are potent symbols and examples of the challenges of integrating manifold socio-economic, political, and environmental aims. For humanity, rivers have always served various functions from mythological to economic. The first civilizations emerged on floodplains of large rivers with their fertile soil, fresh water, and natural travel routes. Rivers are vital to life and that inspired their sacred status worldwide. But all this needs managing. And managing rivers, saving them even in instances evidenced by restoration projects around the world, thus necessarily means addressing ecological issues in their working relationships to a complex range of human needs.

Earth Charter aims are based on core principles. But they must also move us beyond intellectual and scientific understanding to practical actions. To actions that are replete – in the terms of one of the Earth Charter's principles – with “love and responsibility”. That is,

again with Charter principles in mind, actions made with proper awareness of “protecting diversity”, of building “sustainable lifestyles”, and of “dignity and well-being”. In short, the Earth Charter’s ‘Way Forward’ encourages us to “find ways to harmonize” all kinds of paired demands, sacred and scientific, natural and human.

We can be encouraged in this pursuit of practical, harmonizing solutions to sets of ecological-socio-economic problems by the example of the 19th century designer and proto-environmentalist William Morris. In his creative and business life, William Morris faced similar issues of moving from general aims to principled action. He established Morris & Co in 1874, opened a shop in Oxford Street, London and a branch in Manchester, and established workshops in south London. He sought the best suppliers and where necessary developed skills to create his own materials. Morris did this with general aims for good work, high wages, and producing everyday affordable quality products. But how could this be sustained in the late 19th century western economies of cost-cutting, low wages, producing shoddy goods and with no regard for environmental costs? Morris understood a global situation, not dissimilar to that faced in the early 21st century, and political aims became necessarily part of his life and work. So, from the 1880s, he wrote and lectured on topics like “How We Live Now and How We Might Live” and “A Factory as it should be”.

Akin to the Earth Charter’s “Way Forward” grounded in general aims and principles, Morris also aimed at integrating creative and business aims with socio-economic and environmental principles. And he realised too that this meant political or at least educative activism. In this too he shares an approach indicated by the Earth Charter’s 2024 conference on “education for ecological civilizations”.

However, this perhaps begs the question of why environmental and related socio-economic problems, long identified, have not been met with solutions sooner. We know the facts, the stories of ravage and destruction. There exists a practical science too to deal with many problems. But populist thinking for short-term political success, the remoteness of ecological causes, and the sheer numbers of people to persuade, make educative work difficult, albeit vital. Building ecological civilizations against this general background suggests the need for more than scientific education backed with politics. A wider and deeper philosophy is required. In that, both east and west offer long traditions of holistic thought that support building civilizations. Examples are Chinese Daoism with its emphasis on relationship, on patterns, an organicist thinking, and in western ethics the “golden rule”

applied not simply between people but for all life.

So, the Earth Charter's way forward indicates the need for an ethics and philosophy that generates a thoughtful atmosphere in which we act in the right way towards our natural surroundings. But for that intellectual view to be effective we perhaps need more. Again, this is where Morris's example is valuable in suggesting we need, also, an aesthetic sensibility in all we do and make.

After a troublesome political meeting in the 1880s, Morris felt inspired, felt the need no less, to write his utopian romance *News from Nowhere*. In it he conveys a universal conception of harmonious work and life that embraces the range and variety of human interests and experience. Morris's "Nowhere" is a literary response to the political requirement to offer people a vision of how life might be better: the fundamental need expressed by "if I could but see it!" What Morris describes in his "Nowhere" is a clean River Thames, replete with salmon, and his shabby London suburb by the river transformed by a new bridge, its beauty surpassing even Florence's Ponte Vecchio, the soap-works with their smoke-vomiting chimneys, the lead works, gone. Buildings are small and fanciful, like shops with painted and gilded vanes and showing no signs of grimy sootiness. It is a new world described in aesthetic terms, in short. The new sustainable world, a global ecological civilization, is therefore not some puritanical hell, not merely less but a built and natural environment of quality.

Morris's view directs us to harmonious *working* relationships between human aims and values and the natural world. It is one expressed too in the 12th century Song Dynasty artwork *Along the River during the Quigming Festival* showing the vitality of the harmony of river and people, a vision of vibrant riverine life, symbolic at least of "ecological civilization".



Sacred Rivers

Human experiential harmony with the natural environment is radically different to the successful interactions of plant and animal life. Our interactions engage our conscious, imaginative, working lives and in the unique places we live. Morris's home at Kelmscott House in Hammersmith was part of urban London and the River Thames there was polluted, with its riverbanks blighted by ugly commercial buildings. He imagined the Thames as it might be in his poem, "The Earthly Paradise":

*And dream of London, small, and white, and clean,
The clear Thames bordered by its gardens green.*

Of course, this pastoralist vision of the English countryside is not generalisable. And yet it is generally important as an artistic view of realisable aims. Of an "ecological civilization" on the Thames made aesthetically appealing. The *experiential drama of our lives on earth is presented as a thing to understand and love. The state of rivers was both real and symbolic for Morris, perhaps best evidenced in John Ruskin's description of a tributary of the Thames, the River Wandle. Morris was greatly influenced by Ruskin's aesthetic and social-reforming ideas and later built his Merton Works, where he produced Morris & Co goods, on the Wandle.* Ruskin wrote that the source of the Wandle was the "loveliest piece of lowland scenery in South England", expressing "sweet human character and life" (and, no doubt, we all have our similar examples). But he went on to describe how it had been defiled by "human herds dumping into the source of the river their heaps of dust and slime, and broken shreds of old metal, and rags of putrid clothes". Ruskin's description clearly appeals to aesthetic as well as environmental sensibilities. And he thinks the polluting behaviour is sacrilegious, despoiling a river's sacred beauty. It is still a problem, given the Thames has signs urging the public that the river is "not a bin!". In Ruskin's and Morris's time too, the Thames reached a deleterious condition recorded primarily in sensory terms as the "Great Stink". It was, indeed, only this basic experiential response that prompted practical actions to clean and restore the health of the river.

Extreme experiences of environmental damage and climate change can prompt political, ethical, and aesthetic philosophies and practical actions. Ruskin and Morris saw in environmental destruction the need to relate it to a range of such issues. And this is similarly addressed by the Earth Charter in its breadth of understanding and purpose. Their special contribution, however, remains linking environmentalism to aesthetics. They both *saw*

problems and *envisioned* solutions, giving due place to our feelings towards places in any effective ecological, civilizing work. This, it must be said, is not the feeling of tourists toward “beauty spots”. It is an aesthetic sensibility grounded in a sense of responsibility for one’s own local places of beauty. And to enjoying them in our everyday lives. It is also not then an architectural, landscape aesthetics but one of everyday use and pleasure. In Morris’s *Nowhere*, the Thames is swum in and fished by people living there. What Morris conveys – in his literature, lectures, business, and designs – is the interdependence of environmental conditions and our individual and societal well-being.

Much of Morris’s work, even the most plainly political, was inspired by the romance of rivers and driven by beautiful design solutions for everything from basic goods of everyday use to factories and whole communities. That is revealed most clearly in essays like “Art and the Beauty of the Earth”. In the spirit of Morris, rivers are indeed sacred but also works (of “Art”) in perpetual progress too. Their proper development is real and emblematic of humanity’s progress. Rivers are therefore not tamed by aesthetics but managed, using the appropriate technology, with aesthetic notions of harmony in mind. There is no return to a general state of “wilderness”. But that does not mean that ecological civilizations cannot establish their new natural beauty. In that work, art can present dreams and visions like Morris while still appealing to ancient notions of the sacred as places we should *care* for.

Morris’s environmentalism is not scientific but vitally it is literary, visual, and about everyday things we make and use. These are vital elements in building new civilizations because Earth Charter aims, in those terms, have a reality for people in their everyday lives. *Along the River* also perhaps provokes sacred, caring, and creative experiential responses to riverine life that are generalisable to our proper regard for our whole natural world. That *felt experience*, as well as scientific understanding, of climate change’s impacts is perhaps essential to an effective way forward in building ecological civilizations.

Beautiful Designs

Morris’s designs, like his patterns based on idealized views of the tributaries of the Thames, and works of art like *Along the River*, can be regarded as “visual ecologies” reflecting certain socio-economic aims and values. They are important because we all require an aesthetic sensibility focusing our thoughts in a felt, even artistic way towards the world if ecological civilizations are to be built. In that, precedent and inspiration should be

drawn from other artistic insights, from poetry to the visual arts, about what our relationships with the world should be. Their appeals to “divine” yet real human working relationships, like that in Morris’s work, offer exemplars and opportunities to feel as well as think about ecological problems.



Beauty is thus conceived, in respect of the aims and principles of the Earth Charter, as evidencing the vitality and inter-relatedness of sustainable and progressive living. While these are universal themes of truly human existence, art’s form can still be infinitely various. Again, Morris helps us understand what this means in practice. His designs named after tributaries of the Thames reflect the real botany and physical forms of the countryside he knew from visits and at his Thameside country home, Kelmscott Manor in Oxfordshire. In that context, Morris’s designs are more than mere decorative patterns to be used, merely applied, for wallpapers, and so on, in pursuit of “style” in the home. They are intentional evocations of successful harmonious environments, of integrated, vibrant, and colourful living. Indeed, they are intended to provoke and visualise new ways of people and nature living in harmony. So, in that regard at least Morris’s work exemplifies principled good, sustainable work. This is especially the case since, additionally, Morris applied such principles, as far as he could, to the mass production of his work by Morris & Co. Morris’s creative design work does not therefore produce blueprints but aesthetic works expressing successful, civilized ecologies.

In such creative work, a sense of the sacred in harmonious designs is retained but finds secular meaning too in the experiential value we give to beautiful places and things in our everyday lives. A contemporary example of this spirit of Morris in practice is the British design company Soane. Their commitments to, and advocacy of, manufacturing beautiful designs of everyday goods using local skilled workers, sustainable raw materials and processes, adhering to international standards like the Science Based Targets initiative (SBTi), and collaborative national and international networks of workshops, echo Morris's and the Earth Charter's aims and principles. These are integrated then in a way forward that produces beautiful things but also good working lives, international cooperation, and a sustainable natural world. Soane perhaps exemplifies the overarching educative aim of Morris and the Earth Charter: the emphasis on production in its widest sense of producing good people, things, and places.

These educative aims for bringing about ecological civilizations are also reflected in a set of commitments made in 2023 by Liaoning University in China. The Earth Centre at Liaoning aims to educate students to apply Earth Charter principles in their work and lives. So, the Earth Charter Education Centre at the university aims to enhance recognition among teachers and students: 1) of the interdependence of the global community, 2) of the concept of a human family, with 3) shared responsibility for the well-being of future generations. All are given a focus on promoting sustainable lifestyles and models of human development. With Morris too in mind, it might reasonably be added that this education requires that this recognition of Earth Charter values should properly engage aesthetic as well as scientific interests. And where aesthetic interests and sensibilities are grounded in local knowledge of people and places.

Conclusion

Thinking about global Earth Charter aims, sacred rivers, and beautiful designs suggests an aesthetics of politics insofar as harmonious working relationships are necessarily at the fore of building ecological civilizations. What is meant by that is that the essence, or "way forward", of the aims, concerns, and principles of the Earth Charter, amounts to a twofold education in both the science of climate change and in something like Morris's practical aesthetics. For example, education enabling "The Way Forward" is best conceived in terms of encouraging creative, working, beautiful design solutions to environmental problems. It

is worth noting too how that education and work alleviates the “climate anxiety” – recorded in all countries – that people express with only knowing the problem.

This takes us back to the sacred view of rivers and the social and environmental aims and designs we associate with them. In both Morris’s art and *Along the River*, the riverine character of vibrant everyday life is celebrated: bustling, flowing, harmonious. Morris’s environmentalism is also secular but tends to a paradisaical view, in his poetry and designs, that contrasts with the everyday work and vibrancy of *Along the River*. Morris’s bucolic, garden vision might be thought unrealistic, but it properly damns the ugly and polluting, and brings colour and romance to lives. And the example of his business making things at a factory on a tributary of the Thames is a real contribution to conceiving the Earth Charter’s aims in practical terms that engage all its environmental and socio-economic principles. It is work that stands alongside the poetry of trade indicated by lines from an 18th century poem attached to the 12th century *Along the River*:

A wall of gold is mounted on Shu brocade

Watchtowers of the city rise to great heights

The bustling scene is truly impressive.

Aims, at their best, are inspiring. They evoke experiential, aesthetic visions of better lives. Visions of ways of life, no less, underpinned but not confined to understanding the science and principles informing them. So, it is vital to apply aims with beauty in mind, that is with the quality of experiential lives foremost. Then, like Morris the craftsman and environmentalist, individuals will not only know what is wrong with bad ways of making and living, but point it out in our daily lives and, most importantly, create a new sustainable beautiful world through their own works. So, Morris offers an integrated vision of ecology and social and developmental aims, where action is initiated in good work: in care for one’s local environment and conditions of life, and in making things in new sustainable and pleasurable ways.

In 2010 an animated version of *Along the River* was created and named *The River of Wisdom*. It has been exhibited across China, including Taiwan, Hong Kong, and Macao, and further afield in, for example, Singapore and Spain. The lesson it teaches – evident in William Morris’s work and the Earth Charter’s “Way Forward” – is the beauty of working harmonies, of divine and practical collaborations, artistic and technological, rural and urban, between humanity and nature.

Note:

John Ruskin's description of the River Wandle is in his Preface to "The Crown of Wild Olive" (1866). William Morris's evocation of a future River Thames and its environs opens his "romantic utopia", "News from Nowhere" (1888). His ideas on useful work, social justice and environmental issues, local and global, pervade all his essays and lectures from the 1870s to 1890s.

About the authors

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Integrating Sustainability into Learning in College Chemistry

FENG Daming

Abstract

The integration of sustainability into college-level chemistry education emerges as a transformative endeavor, aiming to cultivate a generation of proficient and environmentally conscious chemists. This comprehensive approach involves curriculum design, laboratory activities, and collaborative initiatives. College chemistry educators play a pivotal role in empowering students to become catalysts for positive change. By infusing sustainability throughout the educational experience, from theoretical understanding to practical applications, students develop a mindset that extends beyond traditional disciplinary boundaries. Herein, the opportunity for educators to shape the future of college-level chemistry education by inspiring a new cadre of scientists committed to environmental stewardship and social responsibility is highlighted. The integration of sustainability serves not only as a pedagogical enhancement but as a strategic approach to fostering professionals capable of addressing the complex challenges of our world.

Introduction^[1-7]:

In the ever-evolving landscape of higher education, characterized by its constant adaptation to societal needs and global challenges, the compelling need to integrate sustainability into the academic curriculum has become undeniably apparent. As a professional educator specializing in college-level chemistry, I keenly acknowledge the pivotal role we, as educators, assume in this educational paradigm. Beyond the traditional role of imparting a comprehensive understanding of chemical principles, we bear the responsibility of cultivating a heightened awareness among our students regarding the profound environmental impact associated with their future scientific endeavors.

Within the realm of college chemistry education, the integration of sustainability goes beyond being a passing trend; rather, it represents a fundamental and necessary stride towards shaping a generation of professionals who are not only well-versed in their scientific

disciplines but also deeply committed to environmental stewardship. This integration is a proactive response to the evolving expectations placed upon educational institutions, preparing students to navigate a world where sustainability is increasingly recognized as a core component of responsible and ethical scientific practice.

In this context, the incorporation of sustainability into college-level chemistry courses is not merely an augmentation of content but a transformative approach that intertwines environmental consciousness with the very fabric of scientific learning. It involves weaving sustainability into the pedagogical strategies, instructional materials, and learning outcomes, ensuring that students not only acquire theoretical knowledge but also develop a practical understanding of how chemistry can be applied responsibly and sustainably.

By infusing sustainability into the curriculum, we are not only addressing the immediate educational needs of our students but also contributing to the broader societal goals of fostering environmentally conscious professionals. This approach recognizes that the choices made by future scientists and researchers will significantly influence the trajectory of environmental sustainability. As educators, we play a crucial role in shaping the mindset and values of our students, encouraging them to embrace their roles as stewards of the environment within the scientific community.

Ultimately, the integration of sustainability into college-level chemistry education represents a commitment to producing professionals who possess not only the technical expertise to excel in their careers but also the ethical awareness and responsibility to contribute positively to the broader global challenges we face. It underscores the notion that education is not merely a means to disseminate information but a powerful tool for shaping the future, with sustainability at its core.

Balancing the Elements: Shaping Ethical Chemists through Sustainability Education^[8-15]

Chemistry, as a multifaceted discipline, exerts a profound influence over the intricate tapestry of our world, impacting it in both positive and negative dimensions. On one hand, it has been the catalyst for remarkable technological achievements that have revolutionized various industries, from medicine to materials science. On the other hand, this influential field has also played a role in contributing to pressing environmental challenges, manifesting in issues such as pollution, resource depletion, and climate change. As educators in higher

education, we stand at the forefront of molding the perspectives and practices of the upcoming generation of chemists.

Recognizing the dual nature of chemistry, we bear the weighty responsibility of not only imparting knowledge of fundamental chemical principles but also instilling a profound awareness of the potential environmental consequences of scientific innovations. This awareness goes beyond acknowledging the challenges; it involves fostering a deep-seated commitment to responsible and sustainable practices in the application of chemical knowledge. By seamlessly integrating sustainability into our teaching methodologies, we possess the transformative power to shape the mindset of our students.

The infusion of sustainability into the fabric of chemistry education is more than a pedagogical enhancement; it represents a strategic approach to developing future chemists who are cognizant of the ethical dimensions of their work. It prompts students to think critically about the long-term repercussions of their actions and decisions within the scientific domain. Through this approach, we not only prepare students for the technical aspects of their future careers but also nurture a mindset that values the interconnectedness of scientific progress with environmental and societal well-being.

In essence, the integration of sustainability into chemistry education becomes a conduit for cultivating a generation of chemists who are not only adept problem-solvers but also conscientious stewards of the planet. It underscores the transformative potential of education in shaping values, ethical perspectives, and a holistic understanding of the role of chemistry in the broader context of global challenges. Through our endeavors as educators, we have the unique opportunity to empower students with the knowledge and ethical framework necessary to navigate the complex intersection of chemistry, technology, and sustainability in the years to come.

Connecting Chemistry and Conscience: A Holistic Approach to Sustainability Education^[16-22]

Employing real-world examples and case studies emerges as a potent and multifaceted strategy for seamlessly integrating sustainability into college-level chemistry education. By immersing students in the examination of both historical and contemporary chemical processes, we provide them with a dynamic lens through which to explore the intricate relationship between chemistry and sustainability. Delving into the environmental impacts

associated with these processes goes beyond theoretical concepts, offering students a tangible understanding of how chemical principles manifest in real-world scenarios.

This approach serves as a pedagogical bridge, connecting abstract chemical concepts to the tangible consequences of human actions on the environment. As students navigate the historical footprints of chemical advancements and confront the contemporary challenges posed by industrial practices, they gain not only a comprehensive understanding of the subject matter but also a heightened awareness of the environmental implications inherent in their future professional pursuits.

Furthermore, the analysis of real-world examples cultivates a sense of accountability among students. They become acutely aware that their choices as future scientists and professionals can have far-reaching consequences. This awareness fosters a commitment to responsible and sustainable practices within the realm of chemistry. Students are encouraged to critically assess the ethical dimensions of their decisions, contemplating how their future work might align with or deviate from principles of environmental responsibility.

The integration of case studies into the curriculum not only deepens the students' grasp of chemical concepts but also hones their analytical and problem-solving skills. It encourages them to think holistically, considering the broader implications of chemical processes on ecosystems, communities, and global sustainability. As educators, we witness the transformation of students into conscientious thinkers who are not only adept in their scientific understanding but also equipped with the ethical framework needed to navigate the complex landscape of contemporary chemistry.

In essence, the use of real-world examples and case studies in college chemistry education serves as a dynamic catalyst for nurturing environmentally conscious professionals. It shapes students into well-rounded individuals who recognize the interconnectedness of their field with broader societal and environmental challenges. This approach not only enhances the educational experience but also prepares students to embark on their professional journeys with a heightened sense of responsibility, contributing to a more sustainable future within the realm of chemistry and beyond.

Sustainable Science in Action: Nurturing Eco-Conscious Chemists through Laboratory Exploration^[23-29]

Laboratory activities, which hold a central role in college-level chemistry courses, offer

a rich and dynamic avenue for seamlessly integrating sustainability into the curriculum. Recognizing the pivotal role of practical application, crafting experiments that deliberately emphasize green chemistry principles becomes not only an educational strategy but a catalyst for instilling a sustainable mindset in budding chemists. By incorporating practices that focus on waste reduction, energy efficiency, and the use of environmentally friendly solvents, students are not just learning about chemical reactions—they are engaging in a practical exploration of how chemistry can be conducted responsibly and sustainably.

These hands-on experiences contribute to a holistic understanding of the environmental impact of laboratory practices, extending beyond theoretical discussions. Students, as active participants in experiments designed with sustainability in mind, become aware of the tangible consequences of their actions in the laboratory. This awareness lays the groundwork for a sense of responsibility, as they witness firsthand the potential for mitigating environmental impact through conscientious laboratory techniques.

Moreover, laboratory settings provide a unique platform for introducing students to cutting-edge technologies designed to address contemporary environmental challenges. Exposure to innovative solutions, such as those involving renewable energy sources and eco-friendly materials, not only keeps students abreast of current advancements but also sparks inspiration. As future scientists, this exposure encourages them to envision their roles in contributing to the development and application of sustainable technologies within the field of chemistry.

In the laboratory, students not only hone their practical skills but also cultivate a mindset that values sustainability as an integral aspect of scientific inquiry. Beyond the immediate goal of conducting experiments, they gain a broader perspective on how their contributions to the field of chemistry can align with global sustainability goals. This experiential learning approach not only enriches the educational experience but equips students with the mindset and skills necessary to actively participate in the ongoing dialogue around sustainable practices within the scientific community.

In conclusion, integrating sustainability into laboratory activities in college-level chemistry courses is a dynamic and transformative approach that goes beyond theoretical knowledge. It equips students with the practical skills and mindset needed to address real-world environmental challenges through their future work in the field of chemistry. Through hands-on experiences and exposure to cutting-edge technologies, students are not just

learning about sustainability—they are actively becoming contributors to a more sustainable future in the realm of chemistry and beyond.

Collaborative Chemistry: Navigating Sustainability Challenges through Interdisciplinary Partnerships^[30-36]

The cultivation of a collaborative spirit stands as an indispensable element in the preparation of college chemistry students for the intricate challenges they will encounter in their future careers. Recognizing that the complexities of contemporary issues often transcend the boundaries of individual disciplines, educators in chemistry must actively foster collaborations across a spectrum of fields. Engaging colleagues in environmental science, engineering, and related disciplines becomes a proactive strategy to create a rich tapestry of interdisciplinary learning experiences.

Through these collaborative initiatives, chemistry educators can offer students a comprehensive perspective on the interconnected nature of sustainability challenges. Bringing together diverse expertise allows students to navigate complex problems from various angles, promoting a holistic understanding that extends beyond the confines of traditional disciplinary silos. Collaborative projects provide students with the opportunity to see how their skills and knowledge intersect with those from other fields, emphasizing the importance of interdisciplinary collaboration in addressing real-world challenges.

Moreover, the collaborative approach mirrors the interdisciplinary character of authentic, real-world problem-solving. In professional settings, scientists rarely work in isolation; instead, they collaborate across disciplines to tackle multifaceted issues. By replicating this collaborative model within the educational context, chemistry educators prepare students for the realities of their future careers. Exposure to interdisciplinary teamwork not only enhances the educational experience but also equips students with the adaptability and communication skills necessary for success in a rapidly evolving professional landscape.

This collaborative ethos extends beyond the classroom, fostering a sense of community among students and educators alike. The exchange of ideas and perspectives from various disciplines creates a dynamic learning environment that encourages curiosity, critical thinking, and a deep appreciation for the interconnectedness of scientific knowledge. As chemistry is interwoven with environmental science and engineering in addressing

sustainability challenges, students gain insights into the broader context of their field and its impact on the world.

In essence, the promotion of a collaborative spirit in college chemistry education is not just about diversifying the learning experience; it is about preparing students to thrive in a world where the solutions to complex challenges often require a synthesis of knowledge from diverse fields. By embracing interdisciplinary collaborations, chemistry educators contribute to the development of well-rounded professionals who can navigate the complexities of sustainability with a nuanced understanding and a collaborative mindset.

Ethical Chemistry: Nurturing Responsible Scientists through Conscious Decision-Making^[37-43]

Elevating ethical considerations to the forefront of college education in chemistry is imperative, recognizing that the choices made by budding scientists have far-reaching consequences for society and the environment. Delving into the ethical dimensions surrounding chemical research and industry practices becomes a cornerstone of instilling in students a profound sense of ethical responsibility. Beyond the traditional focus on theoretical knowledge, this approach prompts students to critically engage with the ethical implications of their future roles as chemists.

One key facet of ethical education in chemistry involves fostering an understanding of the responsible use of chemicals. This goes beyond compliance with regulations; it encourages students to reflect on the potential environmental and human impacts of their work. Emphasizing the importance of minimizing harm and promoting sustainability in chemical practices becomes integral to developing a conscientious and ethically-minded approach to scientific endeavors.

Transparency in research is another crucial aspect of ethical considerations in chemistry education. Students should be encouraged to embrace openness in their methodologies, data collection, and reporting. Understanding the ethical obligation to communicate findings transparently not only upholds the integrity of scientific inquiry but also contributes to the broader scientific community's trust in the reliability of research outcomes. By fostering a culture of transparency, educators empower students to navigate the ethical complexities inherent in the dissemination of scientific knowledge.

Furthermore, addressing the potential societal and economic impacts of chemical

innovations becomes an integral part of ethical education. Students need to recognize that scientific advancements may have consequences beyond the laboratory, influencing communities, economies, and public health. Engaging in discussions about the responsible introduction of new technologies and chemicals encourages students to consider the broader ethical implications of their work, guiding them towards decisions that align with societal well-being and sustainability.

By placing ethical considerations at the forefront of chemistry education, educators contribute to the development of ethically aware and responsible professionals. This approach not only prepares students for the ethical challenges they may encounter in their careers but also emphasizes the ethical dimensions of scientific inquiry as an integral part of the learning process. Ultimately, instilling a strong sense of ethical responsibility in college chemistry students ensures that they approach their work with a conscientious mindset, making choices that contribute positively to both the scientific community and society at large.

Conclusion

The integration of sustainability into college chemistry education represents a transformative pursuit, aiming to mold a generation of chemists proficient not only in the intricacies of their field but also deeply committed to environmental stewardship. This endeavor spans across curriculum design, laboratory activities, and collaborative initiatives, where we, as college chemistry educators, have the potential to empower students as catalysts for positive change. By infusing sustainability into the fabric of education, we are not merely imparting knowledge; we are fostering a mindset that transcends disciplinary boundaries. It is an opportunity to shape the future of college-level chemistry education, instilling in students the values of environmental consciousness and social responsibility. As educators, let us seize this moment to inspire a new cadre of scientists who, armed with a profound understanding of sustainability, can contribute meaningfully to addressing the pressing challenges facing our world.

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Political philosophical Reflections on the Governance of Technological Risks

WANG Yuming

Abstract

The development of science and technology has raised the level of productivity of human society and created technological risks at the same time. Technological risk has become a modernity problem through gradual and hidden development, bringing human society into the development stage of risk society. However, the liberal justice of capitalism does not provide a legitimacy basis for the distribution of technological risks. From the standpoint of the historical materialism, technological risk is the result of the monopoly of science and technology by capital, and a realistic manifestation of technology alienation in capitalist society. In the face of the challenge of technological risks, we need both to make use of the advantages of the socialist system to combat internal technological risks and to actively participate in the international governance of technological risks through the building of a community of shared future for mankind.

Keywords

technological risks; modernity; governance; political philosophy; justice

The announcement by the Government of Japan on 13 April 2021 of its decision to discharge nuclear wastewater from the Fukushima Daiichi nuclear power plant into the sea, which contains components harmful to the marine environment, has shocked the world, and has been met with a high degree of concern by countries and international organizations worldwide. Despite opposition from many parties, including my Government, the Japanese Government and TEPCO launched the first discharge on August 24, 2023, local time, of a 30-year-long plan to discharge nuclear contaminated water into the sea. The Japanese government's move is essentially a way for the world to bear the technological risks arising from its own development process, and to avoid the cost of managing technological risks by creating global environmental problems. Looking at the whole process of the Fukushima

Daiichi accident, what has been demonstrated is not the negative impact of nuclear technology per se, but the disorder of technological risk management.

As a concentrated manifestation of the negative consequences of modernity, technological risk has become a global problem of a gradual and insidious nature, and as the level of science and technology improves, there is an urgent need for a political solution to the problem of how to allocate and manage technological risk. Technological risk is generated in the development of capitalism, and purely technical criticism cannot effectively identify and solve the problem of technological risk, while the liberal concept of justice centered on the principle of deservingness cannot provide the legitimacy basis for the governance of technological risk. Based on the materialist conception of history, technological risk is the result of the alienation of science and technology from human beings and human production practices, and the environment in which technological risk arises cannot be eliminated without eliminating the capitalist relations of production and interaction based on private ownership. From this point of view, in actively participating in the process of globalization, we should not only prevent and control internal technological risks through institution-building, but also participate in the international governance of technological risks in the construction of a community of human destiny.

Science and technology, as the “first productive force”, is the core force driving the development of human civilization. Every major productivity change in the history of human society is fundamentally the result of scientific and technological development, which not only promotes changes in the mode of production in the economic field, but also changes the way of human society's interaction on a global scale, closely linking all parts of the world together. The generation and development of technological risks are gradual and hidden, and the three industrial revolutions promoted the formation and development of the world market; at the same time, technological risks have transcended specific regional limitations and have taken on a global character, becoming a special kind of modernity problem.

Risk itself goes hand in hand with the development of human society and is not unique to societies that have adopted modern industrial methods of production. But technological risk is a negative consequence of the development of modernity and has a distinctly human character. Prior to the industrial revolution, the technological level of the means of production was constantly advancing, and human societies experienced primitive, slave and feudal modes of production. At such a level of productivity, characterized mainly by manual

labor, the various parts of human society as a whole were isolated from each other, and there were only sporadic, small-scale exchanges and contacts between peoples, regions, and countries. The small number of links between regions made risks spatially limited, and the risks of particular parts of human society could only be borne by themselves; the low level of technology limited the ability of human beings to transform nature, and the ability to shape nature by human will was still immature, and there was no way to talk about the technological risks of transforming nature, so that the risks borne by human society came from nature more often than not. The industrial revolution brought about changes in productivity as the material basis for the development of modernity, in essence, is the result of human ability to transform nature, technological risk with the human transformation of nature's practical activities over the risk of the natural environment itself, man-made technological risk occupies a major position in society, human society into the beginning of the development of the risk society stage. Therefore, technological risks are relative to natural and man-made risks, and are essentially part of modernity.

The process of replacing natural risks with technological risks is essentially the result of the generation and development of modernity, and its process is progressive and hidden. Scientific and technological development itself is subject to the constraints of the objective law, the high degree of differentiation of disciplines makes the development of science reflects the obvious stage characteristics: theoretical theories put forward by science, it takes a certain amount of time to be able to get the experimental science of the test, and towards the engineering application and popularization, in the human society to get a large-scale use of time; and this process is also subject to the objective constraints of the level of social productivity. These stage characteristics are also manifested in the technical risk, human society on a particular science and technology itself has the knowledge of the hazards is gradually deepened: science and technology in its theoretical development stage of the risk is theoretical, its out of the laboratory, into the community to get the engineering application of the process is also a theoretical risk of becoming a reality of the process of technical risk. In this science and technology continue to generate, self-construction process, technical risk is a hidden existence. Because the development of science and technology can greatly promote the development of productivity, human society tends to put the new science and technology into application before the theoretical technical risk is fully revealed, so the generation of technical risk is hidden, human society lacks of awareness of the undiscovered

technical risk. The concept of artificial intelligence technology was put forward as early as 1956, but constrained by the data collection capacity and computational capacity, the development of artificial intelligence technology level has been stagnant for a long time; until the use of the Internet and the development of microelectronics technology in recent years, which has cleared the technical obstacles for the artificial intelligence, the artificial intelligence technology has been widely used today. However, the process of maturing the development of artificial intelligence as a technology is also the process of gradually exposing and expanding its technological risks, and problems such as security vulnerabilities, excessive privacy collection and recommendation algorithms have gradually arisen in the use of artificial intelligence¹. The process of the development of AI technology and the generation of technological risks demonstrates both the gradual and hidden nature of technological risks themselves and the fact that technological risks are themselves a negative result of the development of modernity. As Giddens said, modernity itself is a dual phenomenon², which has brought great progress to human society and also produced adverse effects at the same time. Therefore, in order to manage and distribute technological risks in development, it is important not only not to “choke on food” and reject scientific and technological progress because of technological risks, but also not to allow technological risks to harm human beings themselves as part of the development of modernity.

Technological risk is not a challenge faced by individual societies, but a holistic problem of modern human society. The Industrial Revolution brought human society into a “technological society” in which the development of science and technology drove the increase of productivity and the change of production relations, machine production replaced manual work, and through continuous technological upgrading and iteration continuously increased the productivity of human society. The capitalist system was established after the primitive accumulation of capital and the feudal relations of production were transformed. Advances in transportation and communication as part of the development of the productive forces fully satisfied the primitive impulse of capital to expand, and the establishment of a single world market incorporating all parts of the world led to the formation of a global political order centered on the pioneering capitalist countries of the West. In this process, technological risk has spread throughout human society along

¹ ZHANG Le. Challenges and Adaptive Governance of Emerging Technology Risks [J]. *Journal of Shanghai University of Administration*, 2021, 22 (01): 13-27

² Anthony Giddens, *The Consequences of Modernity* (translated by TIAN He). [M] Nanjing: Yilin Press, 2000.

with the industrialized mode of production, and human society, while enjoying industrial civilization, has also borne technological risk that is different from that of agricultural society. The technological risk brought by the development of science and technology is not only manifested in the continuous emergence of the hidden risk in the achievements of the previous three industrial revolutions, but also in the risk generated by the new technology in the fourth industrial revolution in the ascendant. With the continuous development of new technologies in the fourth industrial revolution, the global management of technological risks and the rational distribution of technological risks on a global scale have become the issues we must face.

Technological risk, as part of the negative consequences of modernity, is the result of the alienation of science and technology in the development of capitalist societies. The process of modernization of the productive forces ruled by capital has led to the continuous generation and accumulation of technological risks to a level sufficient to threaten the survival of human society. Only by basing ourselves on human society and taking the Marxist theory of distributive justice's critique of private ownership as a prerequisite can we find a source of legitimacy for the distribution of technological risks similar to the distribution of benefits, with a view to realizing the elimination of the hazards of real technological risks and the control of the scale of potential technological risks. Today, while actively participating in the process of globalization, we need to prevent and control internal technological risks through the construction of the socialist system with Chinese characteristics, and participate in the international governance of technological risks through the construction of the community of human destiny at the same time.

The emergence and development of technological risk is inextricably linked to the history of capitalism itself. The development of science and technology inevitably brings risks and challenges, but the alienation of technology under capitalist society has made technology a tool of domination, and through the division of labor, technological risks have been transferred and accumulated, ultimately leading human society to enter the stage of development of a risk society. In this process, the positive role of technological progress as a driving force for the development of productive forces remains unchanged, and the principle of entitlement justice within capitalism separates the bearing of technological risks from the enjoyment of the benefits brought about by technological progress. Therefore, the realistic solution to the problem of technological risk distribution lies in changing the

distribution of benefits into the joint distribution of benefits and risks, and establishing a special relationship between individuals and technological risks on the basis of the special relationship between individuals and technological benefits, so that those who are entitled to technological benefits bear the technological risks that are equal to or even greater than their benefits. Under the market relationship to avoid harm as the basic principle of action of the rational man, in the traditional distribution of income tends to maximize their individual income, individual risk minimization, which ultimately led to the risk borne by the whole society is infinitely enlarged; in the technical income and risk co-distribution of the principle of the rational man will take into account the risk of their income, take the initiative to control the scale of the technological risk, bear the cost of governance of the technological risk. Under the principle of joint distribution of technological benefits and risks, rational people will consider the risks they bear for their benefits and take the initiative to control the scale of technological risks and bear the governance costs of technological risks. The establishment of such a system of co-distribution of benefits and risks requires us to further improve the socialist distribution system with Chinese characteristics on the basis of the market economy, establish a specialized technical risk distribution system, and control the technical risks within the society. Adhere to the people-centered development concept, oppose capital's control of people through the mastery of science and technology, take the people's aspiration for a better life as the fundamental goal of science and technology development, eliminate technological alienation, and return science and technology development to the right track of promoting the progress of productive forces. The Government should manage technological risks through complex means, giving full play to the role of all parts of society in controlling technological risks, coordinating the relationship of interests in the management of technological risks, and defending a just system of distributing technological risks.

From a broader perspective, technological risks have become a common problem and challenge for all humankind. The international political and economic order dominated by Western capitalist countries is unable to deal effectively with technological risks, and the world market and the global division of labor system have instead become tools for transferring technological risks in the process of capital accumulation. Therefore, only by deepening exchanges and cooperation on the basis of the existing international order and jointly constructing a community of human destiny can global technological risks be better

managed. The fundamental goal of the community of human destiny is to realize the win-win sharing of all human beings¹, which fundamentally realizes the effective distribution and governance of technological risks. Through the construction of the model of common consultation, common construction and sharing in the international governance of technological risks, it realizes equality before technological risks and collective decision-making, and guarantees that all human beings can share the fruits of technological development. The community of human destiny must fundamentally avoid the “tragedy of the commons” in the governance of technological risks, and urge each country to take responsibility for its own internal governance of technological risks, so as to reduce the degree of technological alienation in the long term and achieve a balance between the sharing of the benefits of scientific and technological development and technological risk-sharing.

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¹ Xi Jinping. Jointly build a community with a shared future for mankind - Speech at the United Nations Headquarters in Geneva[N]. *People's Daily*, 2017-01-20 (002)



Education for Sustainable Development: An Important Factor Affecting the Future of International Law

MA Wenfei

With Japan's insistence on discharging nuclear wastewater into the sea, despite the opposition of the international community, the principle of sustainable development have once again been brought to the wide attention of the international community. A further question for discussion arising from this incident is whether international law can really bind States in the face of acts that may pollute the international community as a whole. What role does Education for Sustainable Development (ESD) play in this process? Why is ESD an important factor in shaping the future of international law? This paper will focus on several of these questions.

1. Reflections on Japan discharge nuclear wastewater into the sea

Despite public concerns and raging opposition from both home and abroad, Japan started releasing nuclear-contaminated wastewater from the crippled Fukushima Daiichi Nuclear Power Plant into the Pacific Ocean on Aug.24,2023.The ocean discharge, which could last several decades, has been planned for a long time. The incredibly selfish act blatantly violates international law and would impact the entire world. The discharge of Fukushima nuclear-contaminated wastewater is not merely a domestic matter for Japan but a global concern impacting oceanic environments and human health. By ignoring international objections, reneging on international obligations, and forcefully proceeding with the discharge, the Japanese government poses threats to the environment and the legitimate rights of neighboring countries. History cannot be undone, and its repercussions are enduring.¹

Despite the fact that Japan's action has been condemned by Japanese domestic parties, other countries and many NGOs, there is no prevent discharge of Japanese nuclear wastewater into the sea. This has prompted many people to think about

¹ World Insights: Japan's plot to discharge Fukushima nuclear-contaminated wastewater into sea, last viewed Jan 15,2024. <https://english.news.cn/20230824/a3fe941afb784ad6baa0f7becb031966/c.html>.

international law: Is it possible to prevent Japan discharge nuclear wastewater through international law? What should be done if there is something similar in the future (national economic interests in conflict with international environmental interests)?

1.1 Is it possible to prevent Japan through the principle of sustainable development?

Sustainable development has become an unavoidable paradigm that should, as commonly accepted human action(s). It pervades the environmental, social, political, economic, and cultural discourses from the local through to the ‘global’ level by both the public and private sectors. Sustainable development has also widely penetrated the legal domain. This emblematic ‘concept’⁵ has found its way into an ever increasing number of international legal instruments. Promoted by the United Nations, it is central to a vast number of Resolutions, Declarations, Conventions, and international judicial decisions. Sustainable development unsurprisingly interests international lawyers, but the uncertainty surrounding its nature also sparks their perplexity. Its most cited definition is that of the World Commission on Environment and Development (WCED), known as the Brundtland Commission, in its landmark report for the dissemination of the concept, which posits it as development that ‘meets the needs of the present without compromising the ability of future generations to meet their own needs’.⁶ Though symbolic, this definition remains relatively unhelpful when it comes to providing clues for the legal characterization of the notion. Coupled with its multifaceted nature – its texture will inevitably vary according to who makes use of it and for what purpose – academic commentators have dealt with the legal nature of sustainable development with either scepticism or suspicion.⁷ While the International Court of Justice has referred to and interpreted the principle of sustainable development in many cases, there have been no cases before international judicial bodies to date in which responsibility has been attributed solely to violations of the principles of international law. Therefore, although sustainable development has become a fundamental principle of international environmental law, it is not feasible to use it as a reason to stop Japan's nuclear wastewater discharge into the sea. At the same time, under the framework of the current international law, it is also difficult to hold Japan liable for transboundary

⁵ See *Gabcikovo-Nagymaros Project (Hungary v. Slovakia)*, Judgment ICJ Reports (1997) 7, at para. 140.

⁶ Report of the WCED, *Our Common Future* (1987), at 51.

⁷ Virginie Barral, “Sustainable Development in International Law: Nature and Operation of an Evolutive Legal Norm”, *European Journal of International Law*, Volume 23, Issue 2, May 2012, pp 377–400.

environmental damages, because firstly, the damage consequences of Japan's nuclear wastewater discharges to the sea may not appear for many years due to the special characteristics of the nuclear wastewater, and secondly, it is difficult to prove the causal relationship between the damage results and the nuclear wastewater, so in terms of the current rules of international law, it is still very difficult to stop Japan's actions of discharges of nuclear wastewater. Therefore, under the current rules of international law, it is still very difficult to stop Japan's nuclear wastewater discharge.

1.2 What should be done if there is something similar in the future?

The incident of Japan's nuclear wastewater discharge into the sea is a very typical choice. That is, when the economic interests of a country conflict with the environmental interests of the international community as a whole, how to make a choice. Obviously, Japan chose its own economic interests. It is reported that after the nuclear leakage in Fukushima, Japan, in 2011, the Japanese Government put forward five treatment options, and finally chose the least environmentally friendly but cheapest option: discharging nuclear wastewater into the sea.⁸ If Japan discharged the nuclear wastewater into the sea could not be prevented, could not be punished by international law, when other countries are faced with the same choice in the future, will they not follow Japan's example, abandoning the environmental interests of the international community and disregarding the need for sustainable development? How can we prevent countries from focusing on environmental interests when faced with such a choice? While attending the course *INTERNATIONAL PROFESSIONAL DEVELOPMENT ONLINE CERTIFICATE PROGRAMME ON EDUCATION FOR SUSTAINABLE DEVELOPMENT*, Professor Mirian Vilela mentioned the idea that perception is very important, and that if one looks at environmental issues with a systemic thinking, one can ingrain sustainability thinking into one's own concept of thinking, and it will influence choices and decisions. Mirian said that when she was a child she did not wear a seat belt when driving in Brazil, but now her daughter drives with her seat belt fastened automatically and consciously, which is a generational change in the perception of seat belts. Her daughter's mindset is that wearing a seatbelt

⁸ Among the five options, the one that was ultimately chosen was to discharge nuclear wastewater into the sea, because to Japan, this cost was the lowest:
<http://m.news.cctv.com/2021/04/13/ARTIOKifm8AoZ7hW5iWJCMuT210413.shtml>

is the right thing to do. Because perceptions guide human behaviour, changing perceptions is very important, and perceptions can be changed through education. ESD can change people's attitudes towards sustainable development, influence national decisions, and even determine the future of international law.

2. ESD takes the concept of sustainable development to the hearts and minds of people

Perhaps the most important issue for survival in our times is how to sustain the natural environment and our planet's resources at the same time as develop wealth and well-being for a growing population. This monumental task has been defined in the concept of sustainable development. During the last few decades the world communities have, under the umbrella of the UN, agreed upon jointly addressing SD. As a response, Education for Sustainable Development (ESD) has been launched as one of the key answers to dealing with sustainability⁹ ESD endeavours to change people's perceptions of economic development and environmental protection through education. As Mark Hathaway explains in the book *the Dao of Liberation exploring the ecology of transformation*:

It has become increasingly clear that global capitalism in its present form is unsustainable-socially, ecologically, and even financially-and needs to be fundamentally redesigned. Its underlying principle, that making money should take precedence over human rights, democracy, environmental protection, or any other value, is a recipe for disaster. However, this principle can change; it is not a natural law.¹⁰

The underlying idea of ESD is to empower students with sustainability competences through a holistic interdisciplinary perspective of content and pluralistic learner-centered democratic teaching strategies¹¹. ESD has been adopted globally as a consequence of the UN Two Decades for Education for Sustainable Development (2005–2024), which has reshaped curricula worldwide. Although there are not many academic assessments of the effectiveness of ESD, empirical studies of ESD in

⁹ Pauw, Jelle Boeve-de, Niklas Gericke, Daniel Olsson, and Teresa Berglund. 2015. "The Effectiveness of Education for Sustainable Development" *Sustainability* 7, no. 11: 15693-15717.

¹⁰ Mark Hathaway and Leonardo Boff. *The Dao of Liberation Exploring the Ecology of Transformation*, NY: Orbis Books, 2009, p. xiv.

¹¹ Pauw, Jelle Boeve-de, Niklas Gericke, Daniel Olsson, and Teresa Berglund. 2015. "The Effectiveness of Education for Sustainable Development" *Sustainability* 7, no. 11: 15693-1571

Sweden¹², Ireland¹³, Slovenia¹⁴ and other countries have found that the effectiveness of ESD is not obvious, and that students who have been involved in ESD learning do not know more about environmental issues than those who have not been involved in learning. However, there are also studies show that students who have participated in ESD have more environmental intentions than those who have not.¹⁵

I teach international law at Liaoning University, where I emphasise the importance of sustainable development, particularly in the area of international environmental law. I conducted a questionnaire survey after the course, and more than 90 per cent of the students believed that, through learning about sustainable development, they had begun to change their existing habits, such as travelling by bicycle and carrying eco-friendly bags instead of plastic bags. The students have also become more concerned about environmental issues, such as taking the initiative to participate in the Youth Summit on Climate Change and organizing public benefit activities for environmental protection. I think this is the significance of education for sustainable development. There may not be any obvious effect in the short term, but as long as we persevere, there will be a big change, just like planting the seed of environmental protection in the heart of every student, and one day the seed will grow into a big tree. Education for sustainable development has already influenced the development of international law and is an indispensable and important part of the future process of international rule of law.

3. ESD affects the future of international law

3.1 ESD affects the rule of international law

As the principle of sustainable development has been gradually accepted by the international community and the concept of sustainable development has been gradually rooted in the international community, ESD has begun to influence the formation of the rules of international law.

¹² Coertjens, L.; de Pauw, J.; de Maeyer, S.; van Petegem, P. Do schools make a difference in their students' environmental attitudes and awareness? Evidence from PISA 2006. *Int. J. Sci. Math. Educ.* 2010, 8, 497–522.

¹³ Hallfredsdóttir, S. Eco-Schools: Are They Really Better? Comparison of Environmental Knowledge, Attitudes and Actions between Students in Environmentally Certified Schools and Traditional Schools in Iceland. Master's Thesis, Reykjavik University, Reykjavik, Iceland, 2011.

¹⁴ Krnel, D.; Naglic, S. Environmental literacy comparison between eco-schools and ordinary schools in Slovenia. *Sci. Educ. Int.* 2009, 20, 5–24.

¹⁵ Ozsoy, S.; Ertepinar, H.; Saglam, N. Can eco-schools improve elementary school students' environmental literacy levels? *Asia-Pac. Forum Sci. Learn. Teach.* 2012, 13, article 3.

The concept of sustainable development is more and more appearing in various fields of international law, such as the WTO, climate change, and gradually transformed from a soft law declaration to a hard law document that the international community has to comply with. For example, in the field of climate change, initially the international community's focus was on mitigation and adaptation, but with ESD's focus on climate justice and global equity, losses and damage were listed in Article 8 of the Paris Agreement, which began to focus on those who contribute the least to climate change but are affected by it. Since then, in addition to discussing mitigation and adaptation, the issue of climate change has also begun to focus on loss and damage, and has begun to pay more attention to climate justice and climate finance. This is how ESD has changed the rules of international law. In particular, the Talanoa Dialogue¹⁶ has begun to place more emphasis on listening, paying attention to the weak, and cooperation on climate change among equal actors,¹⁷ and these are all inextricably linked to ESD.

3.2 ESD affects the international rule of law

Just as Aristotle believed that the highest ideal of law was the rule of law based on good law and good governance¹⁸, the ultimate goal of international law is the international rule of law, and the fulfilment of the international rule of law requires the fulfilment of “good law” and “good governance” in international level.

How to achieve this goal requires efforts in two directions: on the one hand, there should be good external constraints, and all international rules should be good laws. On the other hand, there should be good internal constraints, i.e., all subjects of international law should consciously abide by the law (including soft law and hard law). This reflects the role of concepts in shaping behavior. Take the case of Japan's nuclear wastewater discharge incident as an example, although at the level of the rules of international law, it seems that there is no hard law rules that can bind Japan, but if the concept of sustainable development is deep in the minds of decision makers, when

¹⁶ Template for non-Party stakeholders' inputs for the Talanoa Dialogue, UNFCCC, last viewed at Jan. 30,2024, https://unfccc.int/documents/64959?gclid=EAIaIQobChMIxaXF9p-IhAMV6w57Bx0FCQ33EAAYASAAEgLWq_D_BwE

¹⁷ Lyster, Rosemary. "The Idea of (Climate) Justice, neoliberalism and the Talanoa Dialogue", *Journal of Human Rights and the Environment* 10, 1 (2019), pp. 35-61.

¹⁸ Wexler, Steve and Irvine, Andrew. "Aristotle on the Rule of Law". *Polis: The Journal of the Society for Greek Political Thought*. 23, 1(2006). P9.

weighing the national economic interests and environmental interests, consciously take environmental interests as an important consideration, then it may not be nuclear wastewater discharge into the sea. Instead, a more environmentally friendly way will be chosen to deal with the problem of nuclear wastewater leakage. Similarly, if the concept of sustainable development is deeply rooted in the minds of all people, then Japan's decision to discharge nuclear wastewater into the sea will receive more obstacles, and more pressure from domestic and international public opinion may make Japan give up its decision to discharge nuclear wastewater into the sea. Therefore, in the process of realizing the rule of law at the international level, the shaping of concepts was particularly important, and ESD played a crucial role in shaping the concept of sustainable development.

4. Conclusion

While the effects of ESD are not yet evident, it is an ongoing process and a change in mindset that may take generations to complete. Since the concept of sustainable development was introduced, it has played an increasingly important role in the field of international law, and has begun to become an important principle guiding the behavior of States. The continued development of ESD will enable States to weigh environmental interests more carefully in the absence of clear provisions in international law, and to give greater consideration to the interests of sustainable development when faced with incidents such as the discharge of Japan's nuclear wastewater into the sea. As ESD plays a very important role in changing attitudes, in the future it will continue to influence the formation of the rules of international law and the decision-making of States in dealing with international affairs, and ESD is an important factor in the realization of the international rule of law, which has a bearing on the future of international law.

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Embarking on a Sustainable Journey: My Experiential Learning in Action

JIANG Yiting

In this article, I would like to share my reflections and insights following the completion of the 7th Online Certificate Programme on Education for Sustainable Development in 2023. I have always been aware that The Earth Charter is a document containing sixteen principles that inspire a global movement towards a more equitable, sustainable, and peaceful world. After completing the programme, it dawned on me that the Earth Charter serves as a guiding light for education, aiming to cultivate the necessary knowledge, values, and skills required to lead a sustainable lifestyle. The training, which lasted for half a year, covered a range of topics related to the Earth Charter, leaving me with a profound impression and enabling me to gain valuable new insights.

In terms of the relationship between the Earth Charter and education, I have grasped four key learnings for integrating the Earth Charter into education and how they contribute to a sustainability worldview. The first idea is to link formal education with life-long learning, and to engage with family and community as sources of learning. By connecting formal and lifelong learning, the Earth Charter promotes a comprehensive, multi-faceted approach to learning, fostering a sense of belonging and responsibility to the local and global environment. The second idea is to emphasize education for children and youth, and to develop their capacities for critical thinking, creativity and compassion. Recognizing youth as future leaders, we need to equip them with skills and attitudes to meet 21st-century challenges. The third idea is to emphasize the relevance of the arts and humanities as well as the sciences, and to use diverse methods and media to communicate the Earth Charter values and principles. Education extends beyond factual knowledge to include aesthetic, cultural, and ethical dimensions. The fourth idea is to recognize the importance of moral and spiritual education, and to foster a sense of reverence for life and respect for diversity. This idea encourages learners to act with integrity, honesty, and justice, celebrating the interconnectedness of all beings. In conclusion, these 4 ideas are essential for a sustainable worldview. They help learners gain a comprehensive understanding, empower them to bring positive

change, enhance appreciation for beauty, diversity, and harmony, and inspire them to live with respect, care, and peace.

As an educator in higher education, I am thrilled to incorporate the principles of the Earth Charter, sustainability, and ecological civilization into my curriculum to instill these values and vision for a more sustainable world in my students. With my expertise in animal ecology, I am committed to imparting courses that align seamlessly with this field of study. I believe that integrating these principles into animal ecology courses at universities is pivotal. The Earth Charter's emphasis on respect for life, sustainability, and fairness aligns seamlessly with the field of animal ecology, which examines the intricate interactions between animals and their environment.

In practice, I implemented this idea in a course. The primary objective of this course is to provide non-biology students with the necessary skills to classify and identify animals to analyze, interpret, represent, and express scientific issues effectively. I made significant changes to the teaching format, establishing two workshops held once a week over two consecutive weeks. The first workshop aims to review and summarize the classification of terrestrial vertebrates and evaluate their current survival status in contemporary society. Prior to the workshop, the students created introduction videos featuring the animals they found intriguing and shared them during class. The second workshop seeks to foster awareness that protecting animals means protecting human beings. We relocated the class to a small garden on campus and conducted a 5-minute ecological meditation. Then, we discussed the meditation content. The two workshops carry a weightage of 12.5% in the final assessment grade for the course.

Throughout the workshops, I was delighted to see the students' keen interest in the topics at hand. One common theme that emerged from the workshops was the yearning for a more natural way of life. Many students shared their love for nature and their desire to live in an environment that is more aligned with nature. However, they also acknowledged the struggles associated with living in urban areas, such as pollution, overcrowding, and lack of access to green spaces. The feedback and participation from the students were particularly rewarding for me as a facilitator. It was evident that they were fully engaged in the discussions and passionate about the topic of sustainable development. I was impressed by the depth and breadth of their contributions to the workshops. They brought diverse perspectives, and their insightful questions helped to

deepen everyone's understanding of the issues. This level of participation exceeded my expectations and inspired me to continue my work in implementing the Sustainable Development Goals (SDGs) and Education for Sustainable Development (ESD) in a more pragmatic manner.

Overall, I believe that these two workshops helped to raise awareness of the importance of sustainable development and provided a positive learning experience for the students. It is clear to me that there is a passion and will among the students to contribute towards a sustainable future. As an educator, it is my responsibility to nurture their interest and help to equip them with the skills and knowledge needed to achieve the SDGs and create a more sustainable world.

Given my natural sciences background, I find it easier to start from SDG5, 6, 7, 11 and 13. However, each SDG holds immense significance and relevance. In the future, my objective is to develop more innovative ideas and incorporate more goals into education. By expanding the scope of topics, I can ensure that my students not only grasp the fundamentals but also recognize their role in contributing towards sustainable development. Providing a comprehensive understanding of global issues will not only equip them with the knowledge and skills required for future sustainability challenges but also inspire them to become future leaders who drive change and create a positive impact on the society.

By combining animal ecology with these concepts, students can gain a more comprehensive understanding of the intricate web of life and the critical role that animals play in maintaining ecosystem health and biodiversity. They can explore how human activities impact animal populations and ecosystems and investigate sustainable practices that can mitigate negative impacts while promoting ecological balance and environmental resilience. Moreover, integrating these concepts allows students to explore the ethical and moral responsibilities we have towards animals and the environment. It encourages them to consider how we can achieve a more harmonious coexistence with animals and preserve their habitats for future generations. By weaving these threads together, we can cultivate a new generation of environmental stewards who understand the importance of safeguarding animal welfare, ecological balance, and sustainable development. Through education, we can inspire individuals to take action and contribute to a more sustainable, ecological civilization that respects all life on

Earth.

Teachers in similar fields can introduce the main ideas of the Earth Charter, emphasizing the importance of living in harmony with nature and protecting our ecosystems. This can help students understand the significance of nature and motivate them to take action to protect our environment. Incorporating sustainability into similar courses is also essential. Teachers can discuss how to achieve balance between economic development and environmental protection by focusing on sustainable practices that benefit both wildlife and their habitats. Ethical considerations regarding wildlife welfare are also important. Students should learn about wildlife and ecology, so they understand the needs of different species and how to protect them from human-induced threats. This helps cultivate a sense of empathy and respect for wildlife and encourages ethical decision-making when it comes to environmental issues. Finally, practical projects can be a great way to integrate the Earth Charter into nature-related courses. By conducting fieldwork or experiments that focus on applied solutions to environmental problems, students can gain hands-on experience with sustainable practices and see how they can make a difference in protecting our planet. Overall, integrating the Earth Charter into nature-related courses is crucial for cultivating a new generation of environmental stewards who understand the importance of sustainability, ethical treatment of animals, and respect for nature. Through education, we can inspire individuals to take action and contribute to a more sustainable future for all.

In summary, the programme provided me with valuable insights and skills. It deepened my understanding of the significance of teaching in higher education and emphasized the importance of sustainable development education. I am confident that I can apply these learnings in my professional practice, both in and out of the classroom. I look forward to future opportunities to further develop my skills and align them with the principles of sustainable development.

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Evolution of Industrial Ammonia Synthesis: A Journey towards Sustainable Development Goals

FENG Daming

Abstract

This essay delves into the historical trajectory of industrial ammonia synthesis, tracing its evolution from the pioneering work of Fritz Haber and Carl Bosch to contemporary innovations. The exploration unfolds the intricate interplay between technological advancements and their alignment with the Sustainable Development Goals (SDGs). Ammonia synthesis, a cornerstone of the chemical industry, demonstrates a remarkable narrative of progress and transformation, embodying principles essential for sustainable development.

Introduction

The historical narrative of industrial ammonia synthesis, originating with the groundbreaking work of Fritz Haber and Carl Bosch in the early 20th century, unfolds as a saga of transformative innovation.^[1] The advent of the Haber-Bosch process revolutionized global agriculture by enabling the large-scale production of synthetic fertilizers, addressing pressing food security concerns. However, this seminal achievement came with environmental challenges, predominantly tied to the extensive energy inputs derived from fossil fuels.

In recent decades, the trajectory of ammonia synthesis has been marked by an unprecedented wave of innovation, positioning it at the vanguard of sustainable technologies. Noteworthy advancements include the integration of renewable energy sources, particularly green hydrogen, as a fundamental component of the synthesis process. This paradigm shift, along with breakthroughs in catalyst design and process optimization, has ushered in a new era of efficiency and environmental consciousness within the realm of ammonia production.

The incorporation of green hydrogen, generated through renewable methods like electrolysis powered by solar or wind energy, has emerged as a beacon of sustainability

in ammonia synthesis.^[2] This innovation not only mitigates the carbon footprint associated with traditional hydrogen production but also aligns with the global shift towards clean and renewable energy sources. Additionally, advancements in catalyst technology have led to the development of more efficient and selective catalysts, reducing energy requirements, and minimizing the environmental impact of the synthesis process.

Furthermore, the exploration of alternative pathways, such as electrochemical and photochemical approaches, has introduced novel perspectives to ammonia synthesis. These approaches offer the potential to further optimize energy consumption and environmental sustainability, contributing to the broader objective of fostering a circular and green economy.

Considering these innovations, the evolution of ammonia synthesis stands as a testament to the transformative power of scientific and technological progress. This essay will delve into these advancements, examining their implications for sustainability and their resonance with the Sustainable Development Goals (SDGs).^[3] The ongoing pursuit of greener alternatives in ammonia synthesis not only addresses historical challenges but also positions this pivotal industrial process as a cornerstone in the quest for a more sustainable and resilient future.

Historical perspective

The advent of the Haber-Bosch process in the early 1900s marked a pivotal point in human history, reshaping global agriculture and addressing food security concerns. The ability to fix atmospheric nitrogen at an industrial scale facilitated the production of synthetic fertilizers, increasing crop yields and ensuring food availability for a growing global population (SDG 2: Zero Hunger). This transformative process played a crucial role in achieving agricultural sustainability by providing a reliable and abundant source of nutrients for crops.

However, the positive aspects of ammonia synthesis were accompanied by significant environmental challenges, primarily tied to the extensive energy inputs required for the process, predominantly derived from fossil fuels. The historical reliance on non-renewable energy sources led to substantial carbon emissions, contributing to climate change, and hindering progress towards SDG 13 (Climate Action). Additionally,

the extraction and utilization of finite fossil resources were inherently unsustainable, posing a threat to SDG 12 (Responsible Consumption and Production).

As the demand for ammonia increased over the decades, so did the negative environmental externalities associated with its production. The intensive use of non-renewable energy sources not only contributed to climate change but also raised concerns about resource depletion and environmental degradation. The historical trajectory of ammonia synthesis, therefore, reflects a dichotomy between its positive impact on global food security and the negative environmental consequences that necessitated a paradigm shift.

Positive strides in technology and innovation have, however, emerged in response to these challenges. The incorporation of green hydrogen into ammonia synthesis, generated through renewable energy sources, stands out as a transformative step towards achieving a sustainable energy future (SDG 7: Affordable and Clean Energy). This innovation not only addresses the negative environmental aspects associated with traditional hydrogen production but also aligns with the global push towards sustainable and renewable energy sources.

Furthermore, recent advancements in catalyst design and process optimization have significantly improved the energy efficiency of ammonia synthesis. This positive shift contributes to SDG 9 (Industry, Innovation, and Infrastructure) by fostering innovation within the chemical industry, making it more sustainable and resource-efficient.

In essence, the historical perspective of ammonia synthesis encapsulates both positive and negative dimensions, underscoring the complex relationship between technological progress, industrial processes, and the pursuit of sustainable development goals. The evolving narrative of ammonia synthesis presents an opportunity to learn from historical challenges, fostering a more conscious and sustainable approach that aligns with the broader global objectives outlined in the SDGs.

Technological advances

In recent decades, ammonia synthesis has undergone a transformative phase marked by technological innovations that have both positive and negative implications for the Sustainable Development Goals (SDGs).

Positive Aspects:

1. **Integration of Green Hydrogen:** A significant positive stride in ammonia synthesis technology is the integration of green hydrogen, produced through renewable methods like electrolysis powered by solar or wind energy.^[4] This shift addresses the negative environmental impact associated with traditional hydrogen production methods, reducing the carbon footprint of ammonia synthesis (SDG 13: Climate Action).

2. **Catalyst Design and Process Optimization:** Advances in catalyst design and process optimization have significantly enhanced the efficiency of ammonia synthesis. More efficient and selective catalysts have been developed, leading to reduced energy requirements for the synthesis process. This improvement contributes to SDG 7 (Affordable and Clean Energy) by making the ammonia production process more energy-efficient and sustainable.

3. **Renewable Energy Integration:** The incorporation of renewable energy sources in ammonia production aligns with SDG 7, promoting the use of sustainable and clean energy in industrial processes. This shift contributes to the global transition towards a more sustainable energy matrix, reducing reliance on non-renewable resources.

Negative Aspects:

1. **Resource Intensiveness:** Despite improvements in efficiency, ammonia synthesis remains resource-intensive, particularly in terms of energy consumption. The energy requirements for high-pressure and high-temperature synthesis processes may pose challenges in achieving complete alignment with SDG 7. Further technological advancements are required to optimize energy use and minimize resource intensity.

2. **Transition Challenges:** The transition towards green hydrogen and sustainable practices in ammonia synthesis presents challenges in terms of infrastructure, investment, and global adoption. These challenges may temporarily hinder the rapid progress required to meet SDGs, particularly SDG 9 (Industry, Innovation, and Infrastructure).

3. **Economic Considerations:** The implementation of sustainable technologies in ammonia synthesis may have economic implications, potentially affecting production costs and market dynamics. Striking a balance between economic viability and sustainability is crucial for the widespread adoption of these technologies, addressing concerns related to SDG 8 (Decent Work and Economic Growth).

Therefore, while technological advances in ammonia synthesis hold promising

prospects for sustainable development, it is essential to acknowledge and address the potential negative aspects. The positive strides, particularly in the incorporation of green hydrogen and catalyst optimization, contribute to multiple SDGs, emphasizing the interconnectedness of technological progress and global sustainability goals. Ongoing research and development are critical to overcoming the challenges posed by resource intensity, transition complexities, and economic considerations, ensuring a more sustainable future for ammonia synthesis in alignment with the SDGs.^[5]

Outlooks and conclusion

The current outlook for the evolution of industrial ammonia synthesis is marked by a dual sense of optimism and challenge.^[6] The positive strides in technology, particularly the integration of green hydrogen and advancements in catalyst design, signify a transformative shift towards a more sustainable future for ammonia production. These innovations not only align with specific Sustainable Development Goals (SDGs), such as SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action), but also exemplify the industry's commitment to addressing global challenges through responsible innovation.

The integration of green hydrogen, produced sustainably through renewable sources, holds promise for mitigating the environmental impact of ammonia synthesis. This shift towards cleaner energy sources aligns with the global imperative to reduce carbon emissions and transition towards a more sustainable energy matrix. As the world grapples with the urgent need to combat climate change, ammonia synthesis stands poised to contribute significantly to SDG 13, fostering a low-carbon and climate-resilient future.

Advancements in catalyst design and process optimization further underscore the industry's commitment to sustainable development. The quest for more efficient and selective catalysts not only enhances the energy efficiency of ammonia synthesis but also aligns with SDG 9 (Industry, Innovation, and Infrastructure). The continuous pursuit of innovation within the chemical industry showcases a dedication to fostering sustainable industrial practices, minimizing environmental impact, and promoting responsible consumption and production patterns (SDG 12).

However, as the industry moves towards a greener horizon, challenges persist. The

resource-intensiveness of ammonia synthesis, economic considerations, and the complex transition towards sustainable practices pose hurdles that demand continued attention and concerted efforts. Overcoming these challenges requires a holistic approach involving technological innovation, regulatory support, and global collaboration. As the industry grapples with these complexities, the journey towards sustainability remains dynamic and calls for ongoing commitment to responsible practices.

In conclusion, the evolution of industrial ammonia synthesis reflects a transformative journey from its inception to its current state of technological sophistication. The positive aspects, such as the integration of green hydrogen and catalyst optimization, showcase a commitment to sustainability and align with multiple SDGs. While challenges persist, the outlook is promising, and the industry has the potential to lead the way in sustainable and responsible practices. As we navigate this evolving landscape, it is essential to recognize the interconnectedness of technological progress, environmental stewardship, and the pursuit of a more sustainable and resilient global future. The continued collaboration between industry, academia, and policymakers will be instrumental in shaping a future where ammonia synthesis is not just an industrial process but a beacon of sustainable development.

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Harmony with Nature, Embracing Multiculturalism, Concern for the Disadvantaged

YU Chaoyi

“Today, with the rapid economic development, the ties between countries around the world have become increasingly close. However, in the context of economic globalization, we are also facing many new challenges. These include the trade-off between economic development and the natural environment, i.e., determining how to live in harmony with nature during economic development. We also need to consider how to be tolerant of different cultures in the face of globalization to avoid cultural conflicts. Additionally, it’s important to focus on disadvantaged groups to create a just and fair social environment. These issues are not only related to the survival and development of the present generation but also to the survival and development of future generations. After attending the Earth Charter course, I have deeply reflected on and experienced these three aspects, which I believe are the most important for human development.”

1. Harmony with nature

With the development of industrialization and urbanization, human activities are increasingly impacting the natural environment. For example, factories pollute the air by discharging exhaust gases; Japan discharges nuclear wastewater into the ocean, polluting the marine resources upon which it relies for survival. All these behaviors are challenging the limits of nature’s tolerance. We can observe that the increase in global greenhouse gas levels, the rising global average temperature, and the frequent occurrence of extreme events are all warnings from nature against excessive destruction.

Living in harmony with nature helps maintain ecological balance. Every living thing in nature plays an important role in the ecosystem. If we disrupt this balance, it may lead to the extinction of some species, which in turn affects the stability of the entire ecosystem. Furthermore, living in harmony with nature contributes to the sustainable utilization of resources. Human life depends on various resources provided by nature, such as water, air, food, and energy. Only by using these resources

sustainably can we ensure the future survival and development of humankind. Additionally, living in harmony with nature contributes to human health, as the quality of the natural environment directly affects it. When air and water resources are polluted, humans will inevitably develop various diseases. Even global warming and extreme temperatures can have a serious impact on human health, such as heatstroke induced by extreme high temperatures and the adverse effects of extreme low temperatures on the human cardiovascular system. Finally, living in harmony with nature helps to maintain beautiful natural landscapes. The natural landscape is a spiritual wealth given by nature, which can create a good spiritual atmosphere and a rich source of inspiration for humans, positively impacting human mental health, bringing people peace and joy, and stimulating creativity.

The sustainable development of humans is closely related to the natural environment, and it is necessary to find a way to satisfy human needs while protecting the natural environment simultaneously. Harmonious coexistence with nature requires us to respect and protect nature. Specifically, on the one hand, we need to change our mindset and lifestyle, adopt a sustainable development model, accelerate the pace of energy transition, use renewable energy sources, and reduce dependence on non-renewable energy sources. We should promote a low-carbon lifestyle among residents and encourage enterprises to improve green total factor productivity. The concept of sustainable development should be deeply ingrained in people's hearts across society, and actions should be taken to practice sustainable development.

2. Embracing multiculturalism

In the context of globalization, different cultures, beliefs, and values are colliding, resulting in geopolitical conflicts and causing local people to suffer from the pain of war. As economic activities between countries around the world become more frequent, it is inevitable that people will encounter individuals from different cultures and customs, leading to conflicts, clashes, and even wars caused by cultural differences. Multiculturalism enriches people's thoughts and provides impetus for social innovation. Tolerance of multiculturalism has significant benefits for social development.

The existence of multiculturalism provides humans with different perspectives on problems, enabling people to solve problems in a diversified way. During the period of

the “Hundred Schools of Thought” in ancient China, different schools of thought, such as Taoism, Confucianism, Legalism, and Mohism, intermingled and learned from each other, jointly promoting the development of Chinese thought and culture. For example, Taoism emphasized the idea of “leaving the world,” i.e., the pursuit of the Tao’s state of inaction and natural originality. Confucianism, on the other hand, emphasizes core ideas such as advocating benevolence, the glory of human nature; consciously following social order and norms - rites; and pursuing a beautiful social realm - peace. Legalism focuses on the art of empire. Han Feizi, a master of Legalism, is most representative of the idea of “law,” “art,” and “power,” which aims to maximize the power of the government at the expense of the interests of all the people. Therefore, in the ideal state of Legalism, the law is under the ruler, and only the ruled are bound. Mohism advocates love for each other as equals (universal love), opposition to aggressive wars (non-aggression), promotion of conservation and opposition to wastefulness (frugality), emphasis on the inheritance of the cultural wealth of predecessors (understanding ghosts), and mastery of the laws of nature (heavenly will), among others. Tolerance of multiculturalism and coexistence of multiple cultures have made China’s cultural connotation richer and more diversified, contributing to the great charm of Chinese culture.

Respecting the plurality and differences of different cultures is the basis for achieving harmonious coexistence of different civilizations. Only by respecting each culture can we understand, accept, and promote social harmony. In addition, by communicating and listening to different cultures, it is possible to truly minimize misunderstandings and conflicts and enhance understanding and respect among people. In fact, multiculturalism provides a platform where different cultures can share and exchange, enhancing people’s understanding of other cultures. The significance of embracing multiculturalism is not only reflected in the macroscopic aspect but also in the microcosmic field. For example, multicultural enterprises tend to be more creative and vital, and the exchange of ideas and cross-fertilization of different cultures often result in the integration of views from multiple perspectives, making their products and services more adaptable. From this perspective, tolerance of multiculturalism enables people to better adapt to the ever-changing world.

3. Concern for the disadvantaged groups

In society, there are many disadvantaged groups, such as the elderly, the disabled,

and the poor. They often face numerous challenges. For example, the elderly may grapple with health problems, loneliness, and the challenge of keeping pace with rapidly developing technology. Persons with disabilities may encounter issues such as inadequate accessibility and employment discrimination. The poor, on the other hand, may struggle with unmet basic needs and lack of educational resources.

Vulnerable groups are typically socially vulnerable or socially weak groups. These include children, the elderly, the disabled, the mentally ill, the unemployed, the poor, laid-off workers, disaster victims, migrant workers, informally employed individuals, and those who are in a disadvantaged position in labor relations. They are a type of social group that has less access to social wealth and may face difficulties in life, lack capacity, or be marginalized and socially excluded. For instance, many elderly people living alone are usually accompanied by hypertension, diabetes, and other diseases. Daily life can be difficult for them to manage on their own, especially in the digital age, where the pace of development can leave disadvantaged groups behind, leading to greater social disconnect. Therefore, the challenges faced by disadvantaged groups today are even more complex and diverse.

The measure of social civilization is the attitude towards the disadvantaged, which can best reflect the level of civilization of a society or a city. In modern society, every citizen enjoys certain rights and needs. However, disadvantaged groups are usually below the threshold of needs, and their interests hold significant moral importance. They are unable to fully participate in social life and enjoy social resources due to various reasons, such as poverty, illness, disability, and age. Therefore, it is our responsibility to pay attention to them and help them so that they can find their place in society and realize their self-worth.

4. Conclusion

Living in harmony with nature, embracing multiculturalism, and focusing on disadvantaged groups are crucial issues that need to be addressed in our society's sustainable development process. Harmonious coexistence with nature is the foundation of our survival, acceptance of multiculturalism drives social progress, and attention to disadvantaged groups embodies social justice. On one hand, we should raise our awareness and contribute to sustainable development in our own small ways. On

the other hand, we should leverage our positions to inspire those around us to actively participate in environmental protection, embrace others, and assist those in need. Furthermore, we should call upon the government, businesses, and even the entire society to participate in building a sustainable future. Only by doing so can we create a more harmonious, inclusive, and equitable world, and truly establish a civilized, just, and inclusive society that values sustainable development.

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A Preliminary ESD Practice in the Scope of the Earth Charter

AN Haiying

Abstract

Sustainable Development Goals (SDGs) being in jeopardy, education for sustainable development (ESD), an essential element to achieve SDGs, deserves due attention. Earth Charter, which states the values and principles of sustainability, can serve as an instrument for EDS. Systems thinking provides the skills for learners to understand and address complex problems in the field of sustainability. To integrate ESD into traditional teaching, a special EDS-oriented lesson, utilizing Earth Charter and systems thinking skills, was interwoven into the regular teaching process of an interpreting course. The result showed the students' enthusiastic exploration and deepened understanding of sustainability, as well as their individual attempt to address the challenges that sustainable development faces. This one-lesson, small-scale ESD initiative is a trial step to integrating ESD into teaching plans, curricula, even school culture.

Key words

sustainable development goals; education for sustainable development; Earth Charter; systems thinking; integration

1. Introduction

Sustainable development (SD) is how we must live today if we want a better tomorrow, by meeting present needs without compromising the chances of future generations to meet their needs¹. In 2015, UN launched the 2030 Agenda for Sustainable Development, whose 17 Sustainable Development Goals (SDGs) cover the three dimensions of sustainable development: the economy, social development and the environment.

However, according to the 2023 SDG Progress Report: Special Edition, the

impacts of the climate crisis, the war in Ukraine, a weak global economy, and the lingering effects of the COVID-19 pandemic have revealed weaknesses and hindered progress towards the Goals. António Guterres, Secretary-General of the United Nations, said in the foreword of the report: Unless we act now, the 2030 Agenda could become an epitaph for a world that might have been².

Among all the efforts by the UN, governments, organizations, businesses, institutions and individuals towards the SDGs, education for sustainable development (ESD) at all levels plays a pivotal role. ESD is a key element to achieve SDGs in that it is not limited to knowledge or information of sustainable development. ESD is more about values, ways of living, and approaches to problem solving.

2. Materials and methods

2.1 The Earth Charter

ESD empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society, for present and future generations, while respecting cultural diversity³. The concept of ESD first appeared in the Brundtland Report in 1987 and was formally included in Chapter 36 of Agenda 21 in 1992, which stated that education, public awareness and training are essential means to achieve progress towards sustainable development⁴. In 2005, the United Nations (UN) Decade of ESD was launched to enhance the role of education in promoting sustainable development⁵. In 2013, the 37th session of the General Conference of UNESCO endorsed the Global Action Programme (GAP) on ESD as the follow-up to the Decade⁵. In 2015, Education for sustainable development (ESD) is stated in target 4.7 of SDG 4: by 2030, ensure that all learners acquire the knowledge and skills necessary to promote sustainable development⁶.

While various approaches to ESD are taken by different organizations, institutions or individuals, the Earth Charter, which has been endorsed by over 6,500 organizations representing millions of individuals, including many governments and international organizations⁷, can be applied as a value support to implement ESD. Launched in 2000, the Earth Charter is a document inspiring a global movement for building a just, sustainable and peaceful world⁸. UNESCO adopted two resolutions, which recognize the Earth Charter as an important ethical framework for sustainable

development and as an education instrument⁹. The Earth Charter includes 16 principles under 4 pillars, namely 1) respect and care for the community of life; 2) ecological integrity; 3) social and economic justice; and 4) democracy, nonviolence and peace. All the principles are commitments to striving for a better and resilient Earth community.

2.2 Systems thinking

The 17 SDGs, which are elaborated in 169 targets and more than 240 indicators, shape a fully interconnected network, where each goal is related to others through a cause-effect relation and the learning of SDGs requires some necessary competences such as systemic thinking, to understand the complexity behind sustainability and the interconnections among environmental, economic and social systems¹⁰. The Earth Charter also stresses the interconnectedness and integrity of the earth community. We can safely draw the conclusion that ESD should aim at training learners to be systems thinkers who hold holistic views and see the forest for the trees.

Systems thinking, as against linear thinking, takes into account the larger picture and dynamic nature of real-world situations, which makes it a powerful tool for addressing complex problems and challenges¹¹. A new definition of systems thinking was put forward by Ross D. Arnold and Jon P. Wade at 2015 Conference on Systems Engineering Research: Systems thinking is a set of synergistic analytic skills used to improve the capability of identifying and understanding systems, predicting their behaviors, and devising modifications to them in order to produce desired effects. These skills work together as a system¹². Armed with systems thinking skills, learners can have better understanding of SDGs and the principles of the Earth Charter and more holistic long-term approaches to the problems and challenges.

3. An ESD-oriented lesson

To integrate ESD elements into regular teaching practice, a special lesson was conducted in the last week of the Interpreting Course for undergraduate English majors in a certain university in China. The last session focused on public speaking, one of the skills in interpreting training. The usual practice is like this: students work in pairs (one as the speaker, the other the interpreter) and deliver a speech with interpretation on any topic that interest them. For the special lesson, specific SDGs-related topics (mainly in

the environmental dimension) were chosen by the teacher with the aim to arouse the students' ecological mindset and explore the values of sustainability. The framework of the lesson design was based on Earth Charter and systems thinking.

3.1 Preparation

Students had had public speaking course in the previous semester. They also had access to those skills in the SPOC video clips. The last session is merely the presentation of speeches and discussion on their performance. Besides the necessary speaking skills, they were prepared for the special speech in three other aspects eight weeks before, so they had sufficient time to work on the script.

- 1) **They were introduced systems thinking and familiarized with it by self-learning through the website, *thinking tools studio* (<https://thinkingtoolsstudio.water.scen.terst.org/cards>).**
- 2) **They got access to Earth Charter and were encouraged them to think how the 16 principles are interrelated.**
- 3) **They were asked to choose from the following topics:**
 - What do you think you is sustainable development? What can we do towards the goals?
 - President Xi once said, “Clear waters and green mountains are as good as mountains of gold and silver.” What do you think of this saying?
 - Is it vital to achieve harmonious co-existence between human and nature? What can we do?
 - What do you know about “carbon footprint”? How to reduce our carbon footprint?

3.2 During-class performance

Another special design for this lesson is that it was not conducted in the classroom. Students were free to find any place outside on campus to accomplish the task and record their performance with their mobile phones. The purpose of doing it outdoors is to create an ecological environment that is related to their topics and can somewhat make them experience human-nature relations.

All the students (56 in all) finished the task within the first period of the class and during the second period teacher and students gathered in the classroom to have a discussion on the quality of their speeches and interpretation in terms of relevant standards.

3.3 Outcome of this lesson

This lesson achieved its academic aim to polish students' public speaking skills and reinforce their interpreting skills. On top of that, their speeches revealed their deepened understanding of sustainability and their sensible ideas in terms of what they can do as college students. Listed in the following are excerpts from some of their speeches.

- Without the healthy environment or ecology, what's the point of having money?
- If we continue destructive development, our children will pay for that.
- Nature is a kind of loving mother but also a butcher in cold blood, quote from Victor Hugo.
- The singing birds and green trees on our campus make my brain fresh every day.
- Environmental protection and economic development are complementary.
- I will also invite my family, friends, and neighbors to do the same.
- We want to leave our future generation a good earth.
- Human beings benefit from biodiversity.
- We can learn a lot from nature.

While the students' performance was successful according to the standards of public speaking and interpretation, the contents of the students' speeches revealed the lack of profound understanding of interconnectedness of SDGs.

3.4 Reflection

Since the teacher conducted this lesson as the final assignment of an Earth Charter training program held by the Earth Charter Center for ESD, several factors have limited the outcome of teacher's attempt to practice ESD. The teacher took part in the program as a part-time trainee and didn't have a chance to integrate ESD values into the whole

teaching process of that course. Though public speaking lesson can be related to ESD in terms of the speech contents, there was no time in class to delve into the Earth Charter principles or systems thinking skills. Through two weeks' self-study the students familiarized themselves with some knowledge but was far away from achieving the goal of transformative learning. This lesson leaves the teacher with thoughts about further study and practice of integrating ESD elements into regular teaching framework.

Conclusion

Universities, where elites and future leaders are cultivated, should shoulder greater responsibility in the efforts to achieve SDGs. The Earth Charter, as a value-oriented document, can be applied to implement ESD in universities. Individual teachers' trial in their courses is just a preliminary step. Effective implementation of ESD in universities calls for the holistic building of a school culture of sustainability to integrate ESD elements into multiple disciplines, conduct interdisciplinary research, carry out extracurricular activities, innovate pedagogies and even the physical environment. Also, as Sam Crowell says in his short e-book *Earth Charter Pedagogy: Integrating Peace Education and ESD*: the specific knowledge about sustainability or peace is not enough to transform beliefs and actions; knowledge must be accompanied by lived values and experience to be transformative and embodied.

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My Reflection on the Earth Charter and the ESD Courses Programme

LIU Cong

This semester I was very luck to take part in the Earth Charter and ESD courses programme. For nearly the half-year's learning, I have learned new rationale and new principles, which have greatly improved my mentality in my life and work. It is a process from quantitative change to qualitative change.

I would like to say thank you to Director Ma giving me this precious opportunity. I also would like to express my gratitude to Professor Mirian Vilela, Sam Crowell, Mark Hathaway, Sanne van Oort, Silvia Ferrero, Alicia Jimenez, Lorna Down, Rosalyn McKeown and other ESD's facilitators for their wonderful seminars and colorful materials. Thanks to all the participants for sharing viewpoints by the forum for it is an elevated platform to learn from each other.

In this midterm, I have made a report to my colleges and students about sharing my ESD programme and promoted them to focus on sustainable lifestyles and human development. That was my first attempt, I had exchanged e-mails with Mirian and Mika. Thanks to Dr. Mirian and Mika Tamura for sending interesting and valuable materials to me. They were useful to me in generating some ideas and I had learned more methods about ESDs. I also express my sincere thanks to my Group 2 members for sharing me some new horizons. I had analyzed and summarized that report and explored new perspectives in my final seminar.

I gave my final seminar on Jun, 20th, 2023 my last English lesson of this semester in the multimedia classroom. My target students were 30 freshmen in accounting major, they knew nothing about the Earth Charter and some of them were proficient in English. Before the class I had made some preparations, I made a comprehensible PowerPoint and typed the paper materials. I bought some Hape blocks and puzzles as teaching materials to reduce the degree of difficulty because some of the principles were abstract.

The first part of my seminar was introduction to the Earth Charter and SDGs contents to the students which included sustainability vision and practice based on a global citizenship approach while building the knowledge, skills, attitudes, and values

needed to shape a sustainable future. The students were very interested, their mouths were wide open in surprise, and I could feel their intense curiosity.



The second part is students' discussion and presentation. I divided the class into five groups, each with six members, I gave each group a wheels of 17 SDGs. Their mission were choosing one of the SDGs' problems and presenting their understanding and discussing the solutions. Group 1 choose Goal 13 Climate Action; Group 2 choose Goal 1 No Poverty; Group 3 choose Goal 2 Zero Hunger; Group 4 choose Goal 12 Responsible Consumption and Production; Group 5 choose Goal 16 Peace, Justice and Strong Institutions. The students can easily listed out the problems, but they could hardly give solutions in a systematical way. I penetrated into more SDGs pedagogies to stimulate students to ask questions, analyse, think critically and make decisions.



The third part was motivated by Dr. Mark's session—the ancestors' letters. I supposed a situational mission. Humans could no longer survive on Earth in the year 2073, and they had struggled and made a long journey to a newly born planet, and those ancestors were ready to start building their new living environment step by step. I gave my students blocks and puzzles as tools to construct their new worlds. I asked the 5 group leaders to draw lots to determine whether they were ancestors or descendants, thus ranking them in order, first ancestors, second generation, third generation, fourth generation, and fifth generation. The five groups took turns to build their new homes. Since the ancestors knew all kinds of problems on the original earth, for example environmental pollution, greenhouse effect, deforestation, education disparity, poverty, discrimination, etc. they were insisting on sustainable development and remembered the lessons of history as they create the new harmonious society for the better survival of future generations.



At last, my monitor proposed that we should take a photo to cherish this valuable seminar and a member of students union smiled and said why not shape our hands as a globe gesture to represent the Earth Charter and SDGs' logo in this moment? Finally we had this unforgettable photo. The picture is at the bottom of this report.

This seminar turned out to be my little victory for this semester. The students were

full of enthusiasm for learning and deeply enjoy this process. They had never been so eager to learn. Some contents and viewpoints are difficult to understand, we stopped to search the heavens to make them clear. In this lesson I turned my class from teacher-centered to student-centered lesson. I hope the students can develop the Earth Charter and SDGs values and principles in their daily life and focus more on sustainable lifestyles and human development. I would like to dig more potential and capacity from myself in Sino-foreign cooperative education English curriculum construction.



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10

The Perfect Combination of Earth Charter and “Real Problems” in Teaching

ZHANG Huiying

Through learning the course of *Earth Charter*, I found that the ancient Chinese philosophy implied many of the principles laid out in the current EC. This made me realize that although from a synchronic perspective, our education system has not explicitly proposed the introduction of principles of EC, or SDG, or the ESD for 2030, we already have a long history from a diachronic perspective.

I have been thinking and searching for how to perfectly combine what I have learned with what I’m teaching now. The basic information on how to use the EC in educational settings offered in this course also gave me a lot of teaching inspiration. Like the book *Bringing Sustainability into the Classroom*, the games, songs, and ways of teaching introduced in this course, which made me think of **the three artistic proofs (Aristotle coined the terms): Ethos, Pathos and Logos (which are also what I’m teaching in my *Art of English Speaking* course). We should try to keep a balance among these factors to “engage learners in a process where experience, reflection, critical analysis, tolerance, cooperation, compassion, and respect are encouraged and developed”.**

As the highest annual event in the field of foreign language studies, 2023 “FLTRP · ETIC Cup” “Understanding Contemporary China” National Foreign Language Contest for College Students was held in Beijing in December 2023. When the national competition entered the second stage, I was delighted to see that the competition questions were closely related to the content of our Earth Charter course:

1. Global challenges: clean and affordable energy



2. Global challenges: child malnutrition



3. Global challenges: education in the digital era



The questions focus on SDG 7 (ensuring affordable, reliable, and sustainable modern energy for all), SDG 2 (eliminating hunger, achieving food security, improving nutritional status, and promoting sustainable agriculture), and SDG 4 (ensuring inclusive and equitable quality education, and providing lifelong learning opportunities for all). The contestants are given the role of Chinese youth representatives to propose Chinese solutions to these common global issues. They should combine China’s practical progress, basic experience, and typical cases, look at global development, propose and explain Chinese solutions, and contribute valuable youth wisdom to promoting the global achievement of SDGs.

It is a perfect combination of English teaching (especially the English speech and debate teaching currently being offered in our university) and “real problems”. In our English speaking and debating courses, we can use these competition questions to guide students to learn language while paying attention to current global challenges, contributing contemporary China solutions to these real problems, integrating China’s own development into the prosperity and stability of the world, showcasing the patriotism, global perspective, and global aspirations of the younger generation, demonstrating the spirit of cooperation.

To be specifically, for example, recently, the UN organized a side event “Youth Engagement—the Catalyst for Change”. Youth participants from all over the world shared their local experiences, personal insights, and recommendations for ensuring access to clean energy in their respective countries and regions. We can precisely apply this real-life scenario in English speech or debate class to let students be the youth representatives from China to share how China’s successful practices can contribute to achieving SDG 7 on a global scale.

In this way, students could reflect, analyze, learn, and understand how the United Nations 2030 SDGs project can be implemented on campus, and how to put the idea of caring for the Earth and life into action through public welfare services. And try to contribute to participating in global governance system reform and building a community with a shared future for mankind!

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11

A Letter to the Earth Charter International ESD Teachers and Facilitators

HAN Ya'nan

January 1, 2024

Dear Earth Charter International Teachers:

Hello everyone! After participating in the Earth Charter study in 2023, I feel that my biggest gain is being willing to do some public welfare work. I may have never been able to do it before, and I never thought of doing these things. I saw many people in the Earth Charter class doing meaningful things for the Earth around the world, which touched me. After five months of learning, my English may not have made significant progress, but my worldview has expanded. I began to search for things I could do around me and do meaningful things for the Earth.

The first one is that I became a guiding teacher for the Youth Volunteer Association of Liaoning University, where I worked as a volunteer club member and coordinated many activities. For example, our volunteer association organized the “Earth Hour” activity, which means turning off the lights for an hour to remind all students and citizens to save energy and reduce stress on the Earth.

We also conveyed encouragement and best wishes to the students who were about to take the graduate entrance exam, and give them small gifts in the cold winter, encouraging them to embrace the challenge with a full attitude.



Picture 1: “The Earth Hour” Activity at Liaoning University



Picture 2: Conveying Encouragement and Best Wishes to the Students Who Are Going to Take the National Graduate Entrance Examination

Secondly, I applied to work at the Fuxin Urban Research Institute of Liaoning University. Fuxin City is a resource depleted city with relatively backward economy in Liaoning Province. To promote the high-quality development of rural industries in Fuxin City, my colleagues and I conducted visits and research in rural agricultural parks, using our knowledge to empower rural development. In the cold north, vegetable greenhouses are breeding vegetable seedlings, preparing for the Spring Festival market. But farmer friends still have many problems, and I bring these problems back to Liaoning University, hoping that professors can solve the problems of farmers and help them live a better life.



Thank you very much for the training organized by the Earth Charter. I have learned a lot of new things. I hope to continue receiving similar education and broaden my horizons in the future. Because I am studying ancient Chinese literature, I have not had the experience of studying abroad so far. Plus, the elderly and children at home need my care, so there aren't many opportunities for me to understand the world. This learning experience, especially when my classmates actively spoke up, left a deep impression on me. I hope to work better, learn more knowledge, and bring new perspectives to my students.

2024 is coming. Wishing all ECI teachers a happy new year !

Han Yanan

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Section II : Essays from Students



On Gender Images in Chinese Teaching Materials of the Secondary Schools

LI Jiayin

Abstract

Chinese teaching materials are of vital importance in shaping students' values and influencing their thinking methods. The gender images in the textbooks have great influences on students' understandings of gender relations and roles. For a long time, research on Chinese teaching materials of secondary school always resolves teaching methods and ideas while the presented ideologies are always ignored. The Chinese teaching materials are seldom studied from gender perspective while how to establish the awareness of gender equality through the characters in the Chinese textbooks is a critical missing link in the educational system.

This paper is aimed to prove the phenomenon of gender inequality and stereotypes through the analyses of the selected texts in Chinese teaching materials of secondary school and try to find solutions. The research methods of this paper are quantitative analysis, comparative analysis and text analysis.

Key Words

gender images; Education; Stereotypes; Chinese Teaching Materials of Secondary School

1. The Theoretical Basis

1.1 Marxism

Marxism is the theory about the complete liberation of the universal proletariat and all mankind, which is both as a political science and a literary approach based on the historical, economic and sociological theory of Karl Marx and Friedrich Engels (Yang Jincai, Wang Haimeng 2013).¹ The underlying economic structure of class inequality and conflicts are emphases of Marxism so a number of contemporary and modern theories about culture, policy, economy and inequality all originate from Marxism.

According to Marxism, the oppression of women is a social phenomenon at a certain stage in the development of history, which must be replaced by gender equality in the new historical condition. Moreover, the degree of women's liberation is a natural measure of general liberation. Women have played a great role in creating human civilization and promoting social development. Both women and men are the promoters of the progress of human society and the creators of social material and spiritual civilization. Respecting and protecting women is an essential symbol of social progress as well as the legal and moral norms of a civilized society.

In the process of socialist construction and development, the Communist Party of China has always adhered to Marxism and regarded gender equality as one of the basic state policies of our nation. Doing more researches on Chinese teaching materials from gender perspective can help students establish the awareness of gender equality, and have a better understanding of female values as well as social status, which is of vital importance in achieving gender equality.

1.2 Social learning theory

Social learning theory is developed on the basis of "stimulus-response" theory and cognitive learning theory, focusing on how human learn in social environments. Bandura, one of the main representatives of social learning theory, held a critical thinking of previous studies. According to him, "If social learning were based solely on the results of rewards and punishments, then most people would not survive in socialization."(Bandura, 1969)² For example, if people have to try every medicine rather than learn from demonstrations to know which one can cure the disease, that is no doubt dangerous and inefficient.

According to Bandura, there are two different processes of behavior acquisition: one is learning from the result of response that is learning by direct experience. The other is learning by observing the behaviors of the demonstrator, which is learning by indirect experience.

The social learning theory has important enlightening significance in teaching and learning. The images in textbooks are examples which have subtle influences on the construction of students' value system. The attitudes of teachers towards these images also impact the opinions of students. For example, if there are too many domestic women in textbooks, while few women in the workplace and most males contribute a lot to the society,

then girls will regard family as the final purpose of women's survival rather than pay less attention on self-improvement. Boys will also have such a view of women. Women's values will not be recognized and respected, while the stereotypes will be deepened in children's hearts.

1.3 Feminism

Feminism explores the issue of women's oppression and rights based on gender-related issues. The strategies of feminist theory are largely focused on policies, patriarchal prejudice, sexual oppression, wage inequality and so on within a male-nominated culture. In the patriarchal society, females are always in the weak position and they do not have equal rights and freedoms with males. The most remarkable feature of feminist literary criticism is that it takes gender as a basic starting point and examines literature from the standpoint of women.

Examining the images in textbooks from the perspective of women can help us have a better understanding of the social status of women. For a long time, the works in Chinese textbooks represent the mainstream ideological values of the country and society. However, our country is a patriarchal society so women are always intentionally or unintentionally ignored in both job markets and the field of literature. Therefore, the female images displayed are inevitably narrow and incomplete. For these reasons, it is necessary for us to analyse the images in Chinese teaching materials of secondary school from the perspective of women in order to embody the complete female values.

2. Case study

2.1 Material used

In order to analyse the images in Chinese teaching materials of secondary school, we take the middle school Chinese teaching materials from 2018 to 2020 and the high school Chinese teaching materials from 2020 to the present of People's Education Press for example to conduct the research. The research methods of this paper are quantitative analysis, comparative analysis and text analysis.

The results are as follows:

Chinese ancient works The total of characters: 113	Total number of males	The Proportion of males	The number of males with distinct features or detailed depictions	The proportion of males with distinct features or detailed depictions
	92	81.4%	91	80.5%
	Total number of females	The Proportion of females	The number of females with distinct features or detailed depictions	The proportion of females with distinct features or detailed depictions
	21	18.6%	14	12.4%

Chinese contemporary works The total of characters: 56	Total number of males	The Proportion of males	The number of males with distinct features or detailed depictions	The proportion of males with distinct features or detailed depictions
	38	67.9%	36	64.3%
	Total number of females	The Proportion of females	The number of females with distinct features or detailed depictions	The proportion of females with distinct features or detailed depictions
	18	32.1%	13	23.2%

Chinese modern works The total of characters: 77	Total number of males	The Proportion of males	The number of males with distinct features or detailed depictions	The proportion of males with distinct features or detailed depictions
	48	62.3%	46	59.7%
	Total number of females	The Proportion of females	The number of females with distinct features or detailed depictions	The proportion of females with distinct features or detailed depictions
	29	37.7%	16	20.8%

Foreign works The total of characters: 64	Total number of males	The Proportion of males	The number of males with distinct features or detailed depictions	The proportion of males with distinct features or detailed depictions
	47	73.4%	44	68.8%
	Total number of females	The Proportion of females	The number of females with distinct features or detailed depictions	The proportion of females with distinct features or detailed depictions
	17	26.6%	15	23.4%

2.2 Detailed analysis

From the statistics, the conclusion that the number of male characters is higher than that of female characters in all periods of Chinese literature can be drawn. Moreover, the males live in different social classes in the textbooks and most of them has distinctive personalities such as “clever”, “loyal”, “realistic”, “generous”, “modest” and so on. A large number of male characters act as scientists, thinkers, doers, businessmen, farmers, kings, soldiers and so on while their family roles are seldom pointed such as “father” or

“grandfather”. Males are always regarded as individuals who can contribute to the society in the outside world.

Compared to the male characters, the number of female characters is fewer, especially in the contemporary literary works. 56.4% of them appear as “mother” or “spouse” in the story without distinctive personalities. Moreover, a series of bottom women with misery fates were created to show the brutal social reality and most of them did not have the power to fight with oppression and inequality, such as Liu Lanzhi in *The Peacocks Fly Southeast*, the heroine in *Song of a Pipa Player*, Lu Shiping in *The Thunderstorm* and so on.

Even if the fates of these females have reflected the social environment at that time, such gender images may deepen the stereotype that “women are always overwhelmed by undesirable events” in children's hearts. Although some marvelous females were described in the textbooks, they are too far from our daily lives to resonate such as Marie Curie and Mu Lan.

From the statistics and comparisons, we can find that most texts in the Chinese teaching materials are based on male standards, reflecting the disregard for women.

3. Discussion

3.1 Patriarchy

According to Marxism, the consciousness of a given class at a given historical moment derives from the modes of material production. As agricultural production played more and more important roles in human's survival in ancient times, males with strong bodies who produced food more efficiently were put priority in the society. Compared with males, females shouldered the responsibilities to take care of the families and acted as the accessories of males. As a result, women have lower social status than men and are taken for granted to stay at home to look after the families. The pattern that “the man runs outside and the woman runs the inside” was formed and continued to this day.

Such a stereotype has also been deeply rooted in people's hearts through social media in modern society. The advertisements on televisions and mobile phones has similar features with Chinese teaching materials in shaping gender images. According to the statistics, more than 50% of females appear as housewives in advertisements while 29.0% of the male roles are in the field of science, education, culture and health. 18% of them are leaders and managers and the sum of the two items is up to 47.0 percent, and none are “stay-at-home

men (Liu Bohong, Bu Wei 1997)”.³ From these examples, we can see that both social media and teaching materials are inevitably influenced by the traditional ideas that “men are dominant and women are subordinate” which is formed in the patriarchal society.

3.2 Stereotype on female

The personalities of most women in the Chinese teaching materials of secondary school are “benighted”, “superstitious”, “weak”, “acid”, “selfish” and so on, such as the mother in *My Uncle Jules* and Hsiang Lin’s Wife in *The New Year’s Sacrifice*.

Although the selected images have reflected the society, they are also related to the stereotypes of women. According to Ueno Chizuko, misogyny still exists in our lives but becomes invisible. The prejudice towards women always exists in the development of literature. During the Renaissance, once Shakespeare wrote “Frailty, the name is woman” in his famous comedy *Hamlet*, weakness had become the symbol of women. In the earlier stage, women were even described as “the shares of Satan” in *the Bible*. Some Chinese idioms such as “To do well is inferior to marry well for women” also negate the values of women as individuals implicitly.

The selected texts in the Chinese teaching materials are reflections of the mainstream social thought, which contains the prejudice against women even if they have become more invisible these days. The process of selecting texts is inevitably influenced by such thoughts.

3.3 Implications for textbook editing

3.3.1 Introduction to more female images

The period of secondary school as well as adolescence is a turning point of students’ lives, which is an important period for students to realize their gender roles and form a scientific outlook on the world and each other.

“Androgyny” is a word in the field of psychology and pedagogy, which refers to the combination and balance of masculine and feminine. American psychologists have conducted a survey of over 2000 children, finding that too masculine boys and too feminine girls have lower IQ and EQ than those who have both masculine and feminine children. Moreover, the adults who have advantages of both sexes are more likely to gain their edges in the competitive modern society.

The results of the surgery have inspired the current editors of the textbooks to spread the idea of gender equality by balancing the images of both genders in the selected texts. The female images play vital roles in the development of adolescence's gender orientations, which refer to their understandings of both sexes' responsibilities as well as advantages. If the positive female images are lacked too much compared with male characters, the stereotypes will be solidified in the minds of children and adolescents. The editors of textbook are supposed to search more information about the eminent women in all historical periods and fields. Most of the selected female images should be independent, hard-working, strong-minded and can contribute to the development of the society. Even if in ancient times when women were greatly oppressed and prejudiced, there were still many intelligent females such as Wu Zetian, who was the only female emperor of China and Lu Zhi, who was a great politician in Han Dynasty. These examples can prove that women have equal ingenuity with men and housewives are not the only pursuit of females.

3.3.2 Manifold aspects of female image

The current society is no longer based on single culture or value. We are in an era of multi-culture and multi-value collision. The single interpretation of Chinese texts is no longer in line with the development of the times (Zhu Dongmei, 2008)⁴. Influenced by the traditional cultural atmosphere, teachers tend to unintentionally simplify and absolute the personality of female characters, which will diminish the attractiveness and realism of female characters.

Take "my mother" in *My Uncle Jules* by Maupassant for example, children are always educated that she is a hypocritical member of the petty bourgeoisie. However, some details in the story also proved her love for children: during the trip of whole family, she took her unmarried daughter nervously to protect her. Even if she wanted to save money, she still allowed daughters to enjoy some oysters. Through the multiple interpretations of "my mother" in the text, her personalities has been richer and the single image in the traditional teaching has become vivid.

4. Conclusion

With the continuous progress of the technology and culture, gender equality has become the inevitable requirement and direction of social development. "One is not born a woman, but rather becomes one."(Simone de Beauvoir, 1949)⁵. The famous saying has

proved the importance of education in Children's gender orientations. However, we can find that there are still lots of phenomena of gender inequality in Chinese teaching materials of secondary school through the results of the surgery.

This is a moment when we must urgently act not only to modify the female images in the selected texts but also to end the harmful status quo which keeps inequality thriving.

Teachers are supposed to overwhelm gender stereotypes which have been sustaining over the years and give equal opportunities for girls and boys to develop themselves during the education. More female leaders and examples should be set to engage in the class managements than before. Moreover, the rights and freedoms of women should be protected in the workplace. The job market is supposed to realize the great values of women rather than deport them back to families. UN Women has proposed some practical and immediate actions to deal with the problems: Ask governments to support care services. Pay the taxes that fund them. Prioritize the creation of family-friendly workplaces which include flexible working hours, paid parental leave, and in-house childcare facilities (Anne Hathaway, 2022)⁶.

The achievements of gender equality will not only give females more opportunities to live independently but also provide males with more possibilities except working outside. Education in adolescent years has played an important role in achieving it. The teachers and the whole society are supposed to emphasize the balance of gender images in Chinese teaching materials and lead children to realize the idea of gender equality in the right direction through effective measures.

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Education for Sustainable Development: Cultivating Students' Sense of Responsibility and Action in Terms of Global Citizenship

MA Zhiqi

The rapid development of the world has brought about economic growth and scientific and technological progress, but it is also accompanied by a series of disadvantages such as environmental destruction, social inequality, resource depletion, social problems and health problems. These problems pose severe challenges to the sustainable development of mankind.

Sustainable development is a comprehensive development concept that aims to achieve coordinated economic, social and environmental development to meet current needs and ensure that future generations can also meet their needs.

It is also an important functional system. Sustainable practices and solutions require us to look to the future and consider how our actions impact systems such as Earth's ecosystems. Using a systems approach to thinking about energy use, production and consumption will lead to very different results than narrow short-term thinking. Sustainable development requires a complete transformation of existing education, production, consumption and living patterns.

How can we achieve this transformation? Education is an important tool to achieve sustainable development, which also leads to the concept of education for sustainable development (The earth charter).

Leverage education as a tool for sustainable development. It empowers everyone to acquire the knowledge, skills, attitudes and values needed to build a sustainable future. The content of sustainable development education includes key issues such as climate change, biodiversity, poverty reduction, food and water security, and sustainable consumption.

However, in addition to content changes, education for sustainable development also requires participatory teaching methods that motivate and empower people to change attitudes and behaviors. This type of education promotes skills such as critical thinking, visualizing future scenarios, and collaborative decision-making, and is grounded in local contexts and a globally connected worldview.

My introduction to sustainability education was through taking the Earth Charter course. Earth Charter Education is an initiative of the United Nations Earth Charter. Earth Charter Education is an educational activity based on the concepts of the United Nations Earth Charter.

Earth Charter education is a part of sustainable development education. Earth Charter education and sustainable development education are closely related. They are jointly committed to cultivating a new generation of talents with a global vision, sustainable development awareness and global citizen responsibility, and promoting global sustainable development. realization. The Earth Charter mainly emphasizes: global vision, sustainable development, comprehensive education, etc.

Global citizens should engage in Education for Sustainable Development (ESD), focusing on educational concepts and practices of environmental, social and economic sustainable development. Sustainable development education includes many aspects such as environmental education, global citizenship education, and social justice education.

Young people are the future and hope of the country. They are of great significance to the country's development, innovation, social stability and cultural inheritance. Young people can learn about sustainability in depth through the school education system. This kind of education is not just about imparting knowledge, but more importantly, cultivating students' attitudes and values so that they can become citizens with sustainable development awareness and action.

Students' environmental awareness, social responsibility, critical thinking and problem-solving abilities can be cultivated through interdisciplinary teaching and practical activities. The goal of sustainable development education is to cultivate students to become talents with a global vision and social responsibility, who can actively participate in and promote the process of sustainable development in the future society. Through this education, students can understand and respect different cultures and values, care about environmental and social issues, and actively seek solutions to contribute to building a more harmonious, equal and sustainable world.

For adults, community education and publicity can help more people understand the concept of sustainable development and participate in sustainable development practices.

Under the influence of the times and society, people may be overly egoistic and excessively pursue their own material wealth and happiness, but ignore the needs and interests of others, causing social conflicts. They may also choose to lie down and not be proactive because they are disappointed with the current social situation. , giving up social responsibility.

Sustainable development education can guide students to establish a correct outlook on life and values by cultivating the social responsibility, innovation ability, cooperative spirit and environmental awareness of global citizens.

Therefore, sustainable development education can help people balance their self-interests and the interests of others, relationships, cultivate a sense of social responsibility and empathy, and be self-interested while still contributing to society; it also helps them get rid of the phenomenon of lying flat, face the difficulties and challenges in life more actively, and make positive contributions to the sustainable development of society.

In addition, sustainable development also tells young people through education that excessive pursuit of material things will cause spiritual emptiness, because materialism is often associated with consumerism, and in the process of constantly pursuing more material wealth and enjoyment, it may lead to financial stress, Work pressure and social pressure ultimately affect happiness.

However, often the results of some pure ideals and pursuits that contribute to the social world bring a sense of accomplishment and happiness. In addition, materialism leads to excessive consumption of resources, environmental damage and social inequality. These problems will have a negative impact on mankind and violate the principles of sustainable development. Materialism cannot bring real happiness to human beings. While pursuing material wealth, people need to pay attention to spiritual needs, pay attention to environmental and social issues, and find more lasting and profound sources of happiness.

To sum up, education for sustainable development is an important direction of education in today's society. It is not only related to the personal development of citizens, but also to the future of the entire society. By cultivating the social responsibility, innovation ability, cooperative spirit and environmental awareness of global citizens, sustainable development education helps guide students to form a positive outlook on life and values, helps adults get out of troubled predicaments, and helps people better adapt to the needs of social development, demand and contribute to the sustainable development of society.

Therefore, I call on all sectors of society to work together to promote the implementation of education for sustainable development and to work together to cultivate future citizens with a sense of responsibility and action. Let us join hands and work hard for the realization of sustainable development education!

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The Contemporary Value of Youth Leadership in China

QU Yunxuan

Abstract

The development and empowerment of youth leadership is an increasing topic of research and practice in recent years. This paper will follow the structure highlighting three key components necessary in cultivating Chinese young leaders, that is, “What”, “Why” and “How”. In the “What” section, after citing the conclusions of former researches, terms of leadership and youth leadership are defined and distinguished. In terms of “Why”, the paper deeply analyzes the urgency and necessity that China in the new era with both the unprecedented opportunities and high expectations inspires and motivates Chinese youth to build youth leadership. In the “How” part, how to develop and empower youth leadership through the ability of ideals and conviction, social value, cooperation and learning skills will be discussed in details.

1. What is leadership and youth leadership

1.1. Definition of leadership

When defining leadership, it is important to check a number of different definitions of leadership. Hemphill and Coons (1957) suggested that leadership is the group activities and the act of guiding group members towards the common goal. Heifetz & Neustadt (1994) emphasizes that leadership is the ability to mobilize people to face problems, and that communities make progress on problems because leaders challenge and help them to do so”. Chemers (2002) proposes that “leadership is the process of social influence in which one person can enlist the aid and support of others in the accomplishment of a common task”.

However, Mortensen and colleagues note that adult and youth of leadership may differ, for example, adults tend to emphasize responsibility while youth highlight communication, collective action, modelling and mentoring (2014). Thus, it is necessary to consider the definition of leadership in youth aspect.

1.2. Definition of youth leadership

Wheeler & Edlebeck (2006, p.89) defined youth leadership as “learning, listening, dreaming, and working together to unleash the potential of people’s time, talent and treasure for the common good”. Kahn et al. (2009, p. 6) defined the development of youth leadership “as young people empowered to inspire and mobilize themselves and others towards a common purpose, in response to personal and/or social issues and challenges, to effect positive change”. VanLinden & Fertman (1998) described three stages of youth leadership development as awareness, interaction, and mastery. DesMaria, Yang, and Farzenhkia (2000) listed the critical elements as: youth/adult partnerships, granting young people decision making power and responsibility for consequences and so on, Ward &Ellis (2008) suggested six characteristic including willingness to provide social support; willingness to enter into close friendships; opportunity for increased social status through affiliation with a popular leader; similarity of values; possibility for idealized influence; and little potential for interpersonal rivalry. The youth leadership training and development was to improve the skills of analyzing and solving problems and conflicts in peaceful ways, so as to contribute to the joint cooperation both within the team and between teams.

With the theories on youth leadership above, it can be summarized that youth leadership is the capacity of leading members to achieve common goals, which includes qualities of personal leadership and team leadership.

2. Why Chinese youth and why now

2.1 Opportunities and conditions for Chinese youth

China’s reform and opening-up for 40 years in economy and technology has greatly improved standards of living, which provides a sound foundation for China’s youth to develop. Living in the best times in Chinese history, the current young generation enjoys an enabling environment for development, a broad space to grow, and wonderful opportunities to make a good career. As the most active and vital force in society, the hopes of a country and the future of a nation lie, young Chinese have always played a vital role in the quest for national rejuvenation.

At the same time, with rapid popularization of the Internet, young people make up the majority of the users of short online videos, live-streaming viewers. It is amazing the internet

profoundly influence the way they live, they also become the main producers of information with more intellectual and cultural confidence, the Chinese youth are exerting the positive energy in an effort to ensure a new look for Chinese youth. Young people in China enjoy more equal and higher-quality educational opportunities as the country continues giving high priority to education. More young people have thus been granted equal opportunities to receive better education, which enable Chinese youth to look straight at the world and give their voice objectively instead of looking up at it subjectively in the past.

2.2 Support and policy for Chinese youth

The development of young people calls for strong protection and support of the state, China has made policies and improved its policy system to cater to the diverse needs of young people in the country. Nowadays, a series of policies and measures have been introduced, and the building of youth-development-friendly cities is in full swing, with the concept of prioritizing young people growing in popularity. Now, a basic mechanism for youth work from the central level to the local level has been generally put in place, and a preliminary policy system for youth development with Chinese characteristics has taken shape. Young people have been benefiting from the policies fully and they feel that they have been taken care of and their important needs are being addressed. Therefore, young people are better protected by the social security system, and they can grow and prosper in a better legal environment and enjoy stronger policy support, more reliable social security, and greater care from a range of organizations.

While the new era provides ample opportunities and support for Chinese youth to develop, Chinese young people should take an effort to explore how to cultivate responsible and ethical leaders into the future.

3. How Chinese youth develop and empower their leadership in the new era

When it comes to actions, this section highlights the skills that youth leadership calls for such as ideals and convictions, social value, cooperation, learning skills and knowledge. These skills are the base of what will become a pyramid of youth leadership, providing the core foundation for the developing leader.

3.1 Ideals and convictions

One of the fundamental characteristics that youth should have to be a leader or act as a leader is ideals and convictions. Ideals provide direction in life, and convictions determine the success of a cause. With the lofty ideals and be firm in their convictions, they should strive to become aspiring young leaders.

3.2 Social value

Social value is a critical component of youth leadership, as morals and values of young Chinese will decide the values of the whole of society to lead other people. Youth must develop a clear understanding of the social value of prosperity, democracy, civility, harmony, freedom, equality, justice, the rule of law, patriotism, dedication, good faith and amity. A large number of outstanding youth have become role models for others, which will help youth attract fellowship.

3.3 Cooperation

Cooperation is another leadership characteristics that youth should have within a team or a group. During the interaction process, youth who can get on well with others and do well with team or group tasks would be good leaders. These team leadership qualities are sense of responsibility, inspiring and encouragement, interpersonal skills and decision-making. All of these skills help the team to work effectively together towards their common goal. Having a leader who is sensitive to the challenges of enabling different personalities to work together, while recognizing the contribution of each team member, means that the team can work well in spite of the challenges that it faces (Kouzes & Posner 1995)

3.4 Learning skills

To develop leadership, youth should keep learning and are more open to new ideas, showing interest in them and understanding them, as enthusiasm for learning is very important for youth to solve problems in proper ways. This requires youth to look, listen and touch carefully. To grasp the meaning of a thing, an event or a situation is to see it in its relations to other things; to note how it operates or functions, what consequences follow from it; what causes it, what uses it can be put to (Dewey,1963). When young people take delight in learning and make it part of their everyday life, it will foster a positive concept of leadership through continuous learning.

4. Conclusion

The paper summarizes the definitions of youth leadership and illustrates the conditions and opportunities enable young people to take meaningful action in the new era of china, with the 4 above necessary skills to develop and empower the leadership of Chinese youth, in the hope that it is used to facilitate understanding and growth of youth leadership in China.

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Connotation and Realization Path of Chinese Young College Students' Cultural Leadership

WU Qianrui

Abstract

This paper studies the connotation and realization path of Chinese young college students' cultural leadership, based on 437 questionnaire samples from Liaoning University, a key university in China's "Project 211". This paper mainly discusses the significance of cultural leadership responsibility to cultural leadership and the challenges faced by young college students in cultural leadership responsibility.

Key words

cultural leadership responsibility; young college students; youth leadership

1. Introduction

From October 7 to 8, 2023, the National Conference on Propaganda, Ideology and Culture was held in Beijing¹. Prior to this, the 20th National Congress of the Communist Party of China stressed the need to vigorously promote the development and prosperity of socialist culture, and building a strong socialist culture has become an important part of realizing the "Chinese Dream" of the great rejuvenation of the Chinese nation². As an important force in the future construction and development of the country, young college students are faced with severe challenges in cultural leadership. On the one hand, because their own mental development is not mature, their world outlook, outlook on life and values are still in the construction stage, and their learning ability, discrimination ability, choice ability and creativity ability are still in the cultivation stage, and they are easily affected by the external environment³; On the other hand, with the rapid development of Internet technology and global trade, multicultural thoughts and values are spreading around the world⁴.

We should consciously establish the responsibility of cultural leadership, strengthen cultural confidence, inherit and develop excellent traditional Chinese culture, consolidate

cultural subjectivity, and strive to practice core socialist values⁵. As an emerging force on the road to the rejuvenation of the Chinese nation, young college students are very important to the new cultural mission of promoting cultural prosperity, building a cultural power and building a modern civilization of the Chinese nation⁶.

2. The basic connotation of cultural leadership responsibility and the connotation of the times

2.1 Basic connotation

“Cultural leadership responsibility” was first proposed by Mr. FEI Xiaotong in the second advanced Seminar of Social and Cultural Anthropology held by the Institute of Sociology and Anthropology, Peking University in 1997⁷. It can be divided into three dimensions: history, reality and future.

First of all, the historical dimension, that is, the responsibility of cultural leadership is to “know oneself clearly” about the history and traditional culture of the nation and to be a “bosom friend.” To know oneself clearly about the history and cultural traditions of a nation requires not only an understanding of the context of the history and cultural traditions of a nation, but also a profound understanding and grasp of the values, concepts, spirits and thoughts contained in the history and cultural traditions of a nation.

Secondly, the realistic dimension, that is, the responsibility of cultural leadership is to have high respect and confidence in the face of heterogeneous cultures, fully understand the strengths and weaknesses of heterogeneous cultures, and achieve “knowing the enemy.”⁸. At present, the most important heterogeneous culture faced by China is the Western culture represented by British and American culture. When we face heterogeneous culture, we should first hold the attitude of respect and confidence, dialectically, critically and selectively absorb the essence of Western culture, such as the spirit of rationality and innovation, and abandon the dross of Western culture, such as utilitarianism and money worship.

Finally, the future dimension, that is, the responsibility of cultural leadership should be based on the reality of increasingly frequent cultural exchanges in the current era of globalization, adhere to the cultural values of “harmony but diversity,”⁹ make their own culture known, used and loved by the world, become an important participant and leader in

the construction of a new world cultural order and pattern, and achieve “victory in a hundred battles.”¹⁰.

To sum up, the responsibility of cultural leadership is to “know oneself clearly” about the history and traditional culture of one’s own nation, to have high respect for and confidence in the cultures of other nations, and to take responsibility to promote the development and prosperity of one’s own culture and to build a new world cultural order and pattern.

2.2 Connotation of the times

Time is one of the basic characteristics of cultural leadership responsibility, and cultural leadership responsibility is subjective consciousness, different groups of conscious connotation is not the same. The temporal characteristics of cultural leadership mainly refer to people’s different values about culture in different stages of historical development, even if the same cultural value has its new connotation in different times¹¹.

In terms of the connotation of the era of cultural leadership responsibility of young college students, it should contain the following three meanings:

First, young college students have a subjective consciousness of their own national culture, and highly identify with their own national history and traditional culture¹². Young college students not only need to actively understand the traditional national culture, such as the ideological culture represented by Confucianism, the food culture represented by Sichuan, Shandong and Guangdong cuisines, and the traditional Chinese medicine culture represented by “watching, hearing, asking and cutting”, but also need to understand the national culture at the present stage. For example, the red culture represented by Yan’an Spirit, the science and technology culture represented by the space spirit, and the concept culture represented by the scientific concept of development, etc., can know the historical development process of national culture in different times, especially those thoughts and concepts that once played an important role in history, and understand the essence of national culture.

Second, young college students’ high self-confidence in the face of their own national culture, high respect in the face of heterogeneous culture, is “harmony in diversity”, but also “the world is great.”¹³. Different national cultures have their own characteristics, such as the rationality of ancient Greek culture, the tolerance of Chinese culture, and the religious belief

of Indian culture, which together constitute a rich and colorful human culture. But when studying, we should pay attention to the appropriate method, neither blindly arrogant nor arrogantly inferior, but should adhere to the principle of making the past serve the present and choosing between dialectical, absorb all beneficial ideas to enrich the national culture.

The third is the ability of young college students to inherit, distinguish, criticize, choose and create culture¹⁴. Young college students should adhere to the critical vision of the whole human culture, consciously inherit the essence of the traditional national culture, eliminate the dross of its rigid and stultifying¹⁵, boldly absorb the beneficial achievements of other national cultures, choose all the ideas, experiences and methods that are conducive to the prosperity of our culture, and consciously enhance the cultural exchanges among different ethnic groups. In order to create a better future of human culture, Chinese national culture can become an important leader and leader of the new cultural system of the world.

3. The current situation of cultural leadership responsibility of young college students

At present, there is little empirical exploration in the academic research on the cultural leadership responsibility of young college students, and more is demonstrated from the theory or teaching practice. This paper takes the young college students of Liaoning University as the research object, and studies the current situation and existing problems of some of the cultural leadership responsibility of young college students.

3.1 Survey design

3.1.1 Survey purpose

In order to better understand the current situation of the cultural leadership responsibility of young college students, analyze the current situation of the cultural leadership responsibility of young college students, summarize the main problems of the cultural leadership responsibility of young college students, and explore the realization path of the cultural leadership responsibility of young college students, the actual investigation is conducted.

3.1.2 Survey objects

The survey objects are young college students of Liaoning University, and according to the research needs, the Survey Questionnaire on the Current Situation of Cultural Leadership Responsibility of Young College Students (see Appendix 1) and the Interview Outline on the Current Situation of Cultural Leadership Responsibility of Young College Students (see Appendix 2) have been compiled.

3.1.3 Survey content

This survey is conducted in the form of a combination of questionnaire and interview. The questionnaire and interview are divided into two parts, including the basic personal information of young college students participating in the survey, the basic cognition, attitude and emotion of young college students on traditional national culture, other national culture represented by Western culture and socialist culture. This paper aims to analyze the situation of cultural leadership responsibility of contemporary young college students, and try to explore effective ways to form the cultural leadership responsibility of young college students.

3.1.4 Implementation steps

The survey lasted for 20 days from November 5, 2023 to November 25, 2023, and was divided into four stages:

The first stage: from November 5, 2023, it mainly collects and organizes materials, extensively collects literature, conducts interviews with individual respondents, motivates classmates and friends to help collect questions, and initially determines the investigation project of cultural leadership responsibility of young college students.

The second stage: from November 11, 2023, it is mainly to prepare the preliminary questionnaire and carry out small-scale preliminary research, adjust and optimize the research items, and determine the form and content of the final questionnaire.

The third stage: starting from November 15, 2023, it mainly conducted a large-scale questionnaire survey and random interviews with the research objects to collect real first-hand information.

The fourth stage: starting from November 20, 2023, it mainly classifies and sorts out all

kinds of data such as questionnaires and interview records, conducts comprehensive analysis with mathematical statistics knowledge, and writes survey reports.

3.2 Current situation description

3.2.1 Sample composition

This survey adopted the method of random stratified sampling. A total of 500 questionnaires were distributed, and 437 valid questionnaires were collected, with an effective recovery rate of 87.4%. The data obtained from the survey were analyzed by SPSS 17.0 (Statistical Product and Service Solutions) and Excel 2016. Some subjective questions involved in the questionnaire were counted manually. Please refer to the following table for the basic information of the respondents.

Table 3-1 Major distribution of survey objects

Major	Number of People	Percentage of Total Number of People
Science and Technology	150	34.32%
Literature and History	187	42.79%
Art	100	22.88%

Table 3-2 Political status distribution of respondents

Political Status	Number of People	Percentage of Total Number of People
Members of The Communist Party of China (Including Probationary Members)	55	12.59%
Member of The Communist Youth League	301	68.88%
The Masses	81	18.54%

3.2.2 The current situation of cultural leadership responsibility of young college students

The current situation analyzes the current situation of cultural leadership responsibility of young college students, which mainly includes the cognitive status, value judgment,

emotional attitude of young college students on different cultural types. The following is a brief overview of the data presented in the questionnaire.

Firstly, the survey on the current situation of the cultural leadership responsibility of young college students in the traditional culture of the Chinese nation shows that most students still have a relatively shallow understanding of the traditional culture of the Chinese nation, and do not know much about the essence of the traditional culture. The traditional culture they pay attention to is often limited to traditional festivals, folk customs, traditional literature, food and cooking skills and other fields. The way of understanding traditional culture is also narrow, and there is no clear understanding of the current situation of traditional culture of the Chinese nation.

When asked about “your views on the ideas of ‘benevolence’, ‘moderation’, ‘virtue’, ‘harmony’ and ‘harmony’ between man and nature’ in traditional culture”, the majority of students (89%) believed that these ideas were “great achievements of the Chinese national spirit, which should be inherited and carried forward”, while 4% of students thought that “these ideas are backward and pedantry, which should be completely abandoned”. Another 7 percent said “it doesn't matter.”

When asked how to treat traditional culture in today’s social environment, the vast majority of students chose “to adapt traditional culture to modern society” (84%), which shows that the vast majority of young college students have a rational and clear understanding of the attitude towards traditional culture of the Chinese nation.

Second, data on the current situation of cultural leadership responsibility of young college students in terms of other national cultures represented by Western culture.

Considering the diversity and complexity of cultural forms and the research needs of this paper, when investigating other national cultures, we choose the typical western national culture in the world today. The survey data show that young college students have a strong perceptual and weak rational understanding of western national culture, and there is a certain phenomenon of blind worship of Western culture. They do not understand the essence of western national culture enough, and they are especially easy to get lost in movies and TV plays and variety shows covered by western value culture.

In the question of “What do you think of American movies and television dramas, Korean music and movies and television dramas, and Japanese anime?”, more than 70% of the students have a tendency to like the entertainment works covered by western values and

culture (72%), which reflects that young college students still have a great emotional factor in their understanding of western national culture. It is also difficult to discern and distinguish the essential attributes of Western values wrapped in these ornate coats.

When asked “How do you think young college students should view western culture”, the majority of young college students chose “make a dialectical choice according to the actual situation, and follow the good” (90%), but still 3% of students chose “Western culture plays a role in promoting the cultural construction of our country, and should be accepted in full”.

Third, data on the current situation of cultural leadership responsibility of young college students in terms of socialist culture

Because China is a socialist country, unless otherwise stated, socialist culture only refers to the socialist culture of China, not including the former Soviet Union and other socialist countries. The survey data show that most young college students have a high degree of recognition for the socialist culture dominated by the socialist core value system, and also agree with Marxism as the leading ideology culture in China. The vast majority of students are willing to contribute to the realization of the “Chinese Dream” of the great rejuvenation of the Chinese nation.

When asked what culture should become the mainstream culture, most students chose “Sinicized Marxism” (70 percent) and “Marxism” (11 percent), “traditional Chinese culture” (11 percent) and “Western culture” (6 percent).

The data show that most young college students believe that their formed cultural characters such as habits of thinking, behavior and values are mainly influenced by school education (25%), family environment (24%), people around them (23%) and social customs environment (19%). They believe that by participating in certain cultural education or training, actively participating in relevant cultural activities helps them form cultural leadership responsibilities. At the same time, some young college students also pointed out that the influence of culture on people is a process from the outside to the inside and then from the inside to the outside. Chinese culture has a long history, is broad and profound, and cannot be destroyed in our hands after five thousand years of continuous inheritance. Young college students should critically receive and absorb the culture of other civilizations to enrich ourselves. We should pay more attention to the importance of cultural environment for young college students to improve their cultural accomplishment.

4. The realization path of cultural leadership responsibility of young college students

On July 1, 2021, general secretary XI Jinping formally put forward for the first time the “two combination” major statement at the celebration of the 100th anniversary of the founding of the communist party of China on July 1, 2021, that is, “insisting on combining the basic principles of Marxism with China’s concrete reality and combining with China’s excellent traditional culture”¹⁶ “the second combination” is our party’s profound summary of the historical experience of the Sinicization of Marxism and the profound grasp of the law of the development of Chinese civilization. On June 2, 2023, at the symposium on cultural inheritance and development, general secretary XI Jinping pointed out: “it is necessary to open up and develop socialism with Chinese characteristics on the basis of the profound Chinese civilization for more than five thousand years, and to combine the basic principles of Marxism with China’s concrete reality and excellent traditional Chinese culture.”¹⁷. In the face of changing situations and problems, our young college students should be prepared to play a “protracted war” in cultivating cultural leadership awareness, cultural leadership attitude and cultural leadership responsibility ability. We will continue to do a good job in cultural inheritance and innovation in accordance with the requirements of creating world-class socialist universities and become young college students with a high spirit of cultural leadership and responsibility. According to the research and found by the young college students in traditional culture, western culture, socialist culture and the understanding of XI Jinping’s cultural thoughts, this paper puts forward the path of young college students in strengthening their cultural confidence and inheriting the new cultural mission of the new era. It aims to guide young college students to better understand the relationship between traditional culture, western culture and socialist culture and realize the responsibility of cultural leadership.

4.1 Firm cultural confidence

XI Jinping’s cultural thoughts emphasize the importance of firm cultural confidence, which not only includes confidence in Chinese traditional culture, but also in socialist culture with Chinese characteristics. Young college students need to understand that cultural confidence is the embodiment of national soft power, and only confident national culture can gain more discourse rights on the international stage. We will inherit the mission of

developing China's excellent traditional culture and absorb advanced foreign cultures. Different ethnic cultures have their own advantages and disadvantages. Young college students should deeply understand the value of traditional Chinese culture, actively learn and inherit traditional Chinese culture, develop Chinese culture in an innovative way, and promote the prosperity of culture and the revival of traditional culture. We will seize the key of the three cultures and let the essence of national culture, western national culture and socialist culture jointly cast the cultural leadership responsibility of young college students. In the process of development, China's traditional national culture has gradually formed an excellent culture of basic spirit and value orientation, such as being built, being integrated by nature and man, carrying things with virtue, being noble, being people-oriented and patriotism. However, there are also dross cultures such as “only”, “loyalty”, “paternalism”, and low status of women. Western national culture has gradually formed a culture based on the thought of “individualism”. Although there are many dross such as utilitarianism, money worship and pragmatism, there are also rational spirit and innovative spirit. Not all western cultures are harmful, which requires us to criticize and choose dialectically; Socialist culture is comprehensive, with advanced culture like the spirit of manned space flight, and backward culture like official culture. When speaking of western culture and Chinese traditional culture, LU Xun said: “the outside is neither behind the trend of thought in the world, and the internal blood is still inherent in it.”

4.2 Inherit the new cultural mission of the new era

In October 2017, the party's September 9 report first proposed the “new cultural mission”, which called for “promoting the prosperity of socialist culture”. XI Jinping's cultural thoughts provide young and young college students with the mission of The Times, namely, promoting cultural prosperity, building a strong cultural power and building a new cultural mission of the modern Chinese civilization. Young college students are witnesses and creators of the Times. They should actively learn from XI Jinping's cultural thoughts and take practical actions to promote the prosperity of Chinese culture.

Traditional culture, western culture and socialist culture constitute an important part of today's young college students' cultural cognition. The three do not exist in isolation, but are interwoven and influence each other, which has far-reaching significance for young

college students to carry forward the mission of new culture in the new era and realize the responsibility of cultural leadership.

Consciously undertake the responsibility of inheriting the value of traditional excellent culture and modern mining. The fine traditional culture is the foundation of the Chinese nation and contains rich wisdom and values. Young college students should deeply understand the essence of traditional culture, not only pay attention to the superficial festivals and folk customs, but also dig deep into its internal philosophy, moral standards and aesthetic concepts. Through the study of classical literature, traditional thought, art inheritance, etc., young college students can perceive the importance of traditional culture for personal cultivation and social development, and combine this traditional wisdom with modern values to form a unique cognition of the new era. Young college students should actively participate in social practice activities and integrate cultural cognition into practice. By participating in cultural heritage protection, cultural inheritance projects, etc., we will put the cultural cognition learned into practice and contribute to the inheritance and innovation of new culture.

Rational cognition of heterogeneous culture and promotion of cultural exchange. As an important part of global civilization, western culture provides young college students with different perspectives and ways of thinking. However, the cognition should be more rational and comprehensive. Young college students need to go beyond the superficial external phenomena and dig deep into the core connotation and spiritual value of Western culture. Through cultural exchange and dialogue, understanding the strengths of Western culture and comparing and blending with traditional culture can provide young college students with a broader vision and expand the boundary of cultural cognition. Young college students can realize the integration of traditional culture, Western culture and socialist culture through comprehensive cultural courses and cross-cultural exchanges, cultivate multi-cultural thinking, and form a more complete and three-dimensional cultural cognition.

To assume the responsibility of the socialist cultural era. Socialist culture is an important component of socialism with Chinese characteristics, carrying the spirit of The Times and the destiny of the country. Young college students should actively study and implement socialist core values and internalize them into code of conduct¹⁸. Deepen the understanding of socialist culture in practice, practice socialist core values with practical actions, and play an important leading and promoting role in personal development and social progress.

In the process of realizing the responsibility of cultural leadership and inheriting the mission of new culture, young college students need to continue to study and explore, and at the same time, combine the needs of personal growth and social development, and constantly strengthen cultural cognition and self-values. By deeply understanding the depth of traditional culture, the breadth of western culture and the modernity of socialist culture, young college students can better grasp the cultural pulse of the new era and contribute their wisdom and strength to cultural inheritance and innovation.

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Appendix

Appendix 1

Questionnaire on Current Situation of Cultural Leadership Responsibility of Young College Students

Dear students,

Hello!

Thank you very much for sparing your valuable time to participate in this academic survey. This questionnaire is anonymous and aims to understand the current situation of cultural leadership responsibilities of young college students. It does not involve any privacy of you. There is no right or wrong choice for each question. Please read it carefully and fill it in according to your actual situation. Thank you for your cooperation!

Basic information about the participant:

1. Your school:
 - A. Liaoning University
 - B. Other
2. Your subject:
 - A. Science and engineering
 - B. Literature and history
 - C. Arts
3. Your political status:
 - A. Party Members (including probationary members)
 - B. Members of the Communist Youth League
 - C. Members of democratic parties
 - D. The masses

Survey questions:

1. Your views on the traditional culture of “benevolence”, “moderation”, “thick virtue”, “peace is the most valuable”, “heaven and man unity” and other ideas:
 - A. The great achievements of the Chinese national spirit should be inherited and promoted

- B. Didn't think about those things, it doesn't matter
 - C. They are all backward and pedantic ideas and should be abandoned altogether
2. What attitude do you think we should adopt towards traditional culture in today's social environment?
 - A. Maintain the purity of traditional culture and revive traditional culture
 - B. make adaptations to adapt traditional culture to modern society
 - C. Completely abandon traditional culture
 3. What do you think of American movies and TV series, Korean music and TV series, Japanese anime, etc.?
 - A. Very much
 - B. Prefer it
 - C. Generally
 - D. Not really
 - E. I don't like it
 4. How do you think young college students should view Western culture?
 - A. Western culture plays a role in promoting the cultural construction of our country and should be fully accepted
 - B. Chinese culture has a long history and is brilliant and does not need Western culture
 - C. According to the actual situation, make a choice based on differentiation
 - D. accept only those cultures that are useful to our country
 5. If there should be a culture to become the mainstream culture, do you think it should be:
 - A. Marxism
 - B. Marxism with Chinese characteristics
 - C. Traditional Chinese culture
 - D. Western culture
 - E. Religious culture
 - F. Other cultures
 6. In your opinion, what are the main influences on the thinking habits, behavior patterns, values and other cultural qualities you have formed? (Multiple options available)

- A. Schooling
 - B. Social customs environment
 - C. Family environment
 - D. Someone or people around
 - E. A certain book
 - F. Other _____
7. What are your suggestions for improving the cultural leadership responsibility of young college students?

Appendix 2

Interview Outline of Young College Students' Cultural Leadership Responsibilities

1. When it comes to cultural leadership responsibility, what is your first feeling? What comes to mind?
2. What do you think are the similarities and differences between the cultural leadership responsibility of young college students and the general cultural leadership responsibility?
3. Can you name some famous words of traditional culture that impress you deeply?
4. What do you think about the current situation of Western culture? What do you think of Western culture?
5. Please briefly talk about your views on the craze of Chinese studies, Confucius Institutes, American TV series and the construction of a strong socialist culture.



Gender Equality is a Win-win for Men and Women

DU Runxuan

Introduction

When it comes to gender discrimination, people often gravitate towards the unequal treatment of women. It is noticeable that the majority of online proponents for gender equality are women. Consequently, in the eyes of many, sexism appears to solely pertain to women, leaving men untouched. However, true attainment of gender equality necessitates unwavering advocacy and support from both genders. While some may perceive gender equality as exclusively benefiting women, its significance manifests in the progress and sustainable development of men and women alike, as well as society as a whole. Gender equality is not a zero-sum game but a win-win for everyone. This essay will discuss gender discrimination and gender stereotype, the benefits of gender equality, and the role of men in achieving gender equality.

Gender discrimination and gender stereotype

Gender discrimination is when someone is treated unequally and unfairly based on their gender identity. Broadly speaking, patriarchy is the main cause of sexism. And the basic reason for the persistence of sexism is gender stereotypes. A gender stereotype is a preconceived notion of someone based upon their gender. It often engenders prejudice and bias, altering one's perception and manner of engaging with others unfairly. This stereotype exists in both genders, and both positive and negative traits are present. Positive female stereotypes assume women as gentle, kind, and considerate. On the contrary, negative perceptions portray them as indecisive, sensitive, and vulnerable. Similarly, men are seen as decisive, calm, and independent, but are also seen as arrogant and careless.

For instance, many people take it for granted that women should take care of their children and men should be the breadwinner. Historically, ancient Chinese Confucianism has the view of “men dominate the outside, women dominate the inside”, and this view has deeply influenced the social division of labor in many countries and nations until today. It is believed that women should expend all their efforts on the care of home and children, and men should endeavor to earn money. In order to make it easier for mothers to look after their

children, many shopping malls now have dedicated rooms of mother and infant, but no rooms of father and infant. And this is an epitome that women should take care of children today. Nowadays, in many countries, working mothers are used to juggling their jobs, their children's needs and their housework. In Japan, being a housewife has even become a profession. For men, being a stay-at-home dad or earning less money than his wife is considered a “deadbeat”. We can find that this kind of gender discrimination is caused by gender stereotypes. There are many more examples, such as a married woman taking her husband's name, women with doctorates being considered unmarriageable, and the list goes on.

Gender discrimination is most evident in the workplace. According to Your Data Center, 71.63% of women have experienced some degree of gender discrimination in the job search process. About 30,000 women are fired each year simply because they are pregnant (EOC), and 440,000 lose pay cuts or promotions because of pregnancy (Fawcett Society). According to the International Labor Organization, women make about 20 cents less than men. There are factors like differences in jobs, education, skills, and experience, but gender discrimination is a significant factor, as well. It is true that men are treated better than women in the workplace, but this does not mean that we should pit men against women. In other words, the root cause of gender discrimination against women in the workplace is not the existence of men, but the choice made by the company in order to obtain more profits. That is to say, the underlying cause of gender discrimination in the workplace is capital.

Gender discrimination has numerous detrimental impacts on individuals and society as a whole: First and foremost, it gives rise to the inequality in opportunities. Gender discrimination limits access to education, employment, and leadership positions. This prevents individuals from reaching their full potential and contributes to a significant gender gap in various sectors. Secondly, gender discrimination hinders economic growth and development. When certain genders face barriers to employment and receive unequal pay for equal work, it leads to financial instability and reduced productivity within societies. Thirdly, discrimination can adversely affect the physical and mental health of individuals. Gender-based violence, including domestic abuse and sexual harassment, is often rooted in gender discrimination and can cause severe emotional and physical trauma. The last but not the least, gender discrimination reinforces harmful stereotypes about masculinity and femininity, limiting the freedom of expression and personal choices. It restricts individuals from exploring their interests and talents without fear of judgment or societal backlash.

The benefits of gender equality

Promoting gender equality brings a number of benefits to individuals, communities, and societies at large.

To begin with, gender equality can emancipate people's nature to promote the talents, skills, and perspectives of all individuals. Women are desperate to pursue their dreams, men become careful and responsible stay-at-home dads, and everyone has the right to do what they want without being ridiculed.

Next, gender equality positively impacts health outcomes by ensuring equal access to healthcare services and resources for all genders. It reduces gender-based violence and promotes reproductive health rights, resulting in improved overall well-being for individuals and communities.

And then, gender equality fosters social cohesion and stability by reducing inequalities and promoting social justice. It creates more inclusive and harmonious societies where everyone feels valued, respected, and empowered to contribute positively.

Ultimately, gender equality enhances human rights. By promoting equal opportunities, eliminating discrimination, and upholding the principles of fairness and justice, societies can create an environment that respects and protects the rights of all individuals.

The role of men in achieving gender equality

According to the findings behind the new Gender Social Norms Index released by the United Nations Development Programme (UNDP), despite decades of progress in narrowing the gap of equality between men and women, an alarming number, nearly 90 percent, of both men and women still harbor some sort of bias against the fair sex. About half of the global population, encompassing both men and women, maintain the perception that men possess superior capabilities as political leaders. Moreover, over 40 percent hold the belief that men excel in executive roles within the business realm and that men are more deserving of employment opportunities when faced with scarcity. Shockingly, 28 percent deem it justifiable for a man to resort to violence towards his spouse.

Whilst embarking upon the journey of advancing gender equality, one must heed the voices of women and enact laws and policies that enable them to exert their rights and make meaningful choices. Furthermore, it also requires the active engagement of men as steadfast partners and devoted allies.

However, to some degree, men are not really aware of the problem of gender discrimination, which is one of the reasons why women are often the advocates of gender equality. To clarify, it is important to note that the lack of awareness regarding gender biases is not exclusively attributed to men. If women were to constitute the majority in influential positions of power and high social status, while men formed the minority in such roles, it is likely that women would also exhibit a propensity for favoring the majority that might become automatic and unconscious over time. It's how the human brain works, as psychologists refer to it as an "egocentric bias."

Hence, it is crucial to raise men's awareness that the promotion of gender equality extends beyond benefiting women alone. Traditional gender norms constrict the range of acceptable roles and behaviors for men, whereas embracing greater gender equality can unlock a broader spectrum of options and positive conduct for them. Evidence demonstrates that when men adopt non-violence and more equitable norms and practices, it not only enhances the happiness of their female partners but also contributes to their own improved well-being and contentment.

Conclusion

Gender discrimination imposes constraints on the free and comprehensive development of individuals, inflicting both physical and mental harm upon women and men alike. Such discrimination not only undermines societal harmony but also impedes overall progress. Conversely, gender equality engenders a salutary effect on the flourishing development of both women and men, as well as the sustainable advancement of society as a unified entity. Gender equality transcends the confines of being solely a women's concern; it is our ardent hope that men too will recognize its significance and embrace the manifold advantages it bestows. The topic of gender equality does not seek to foster antagonism between genders but rather aims to foster understanding, mutual respect, and equitable treatment in society. It is imperative to understand that gender equality is not a zero-sum game, but a win-win for all.

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The Earth Charter about Environment and Sustainability

HUI Wanying

The rapid development is making the world busier and more complex than before, which means that we would face more problems than before in details. Participating in the program of the Earth Charter International organization is going to make me and other participants to be one of the people who owns the leadership, sustainability and ethics ability while facing with different situations. More ethic problems are produced because of the society is developed. An Earth Charter Young Leader means that we have the capability of entering the recent market as a qualified person. When it comes to the course that I have taken to be an Earth Charter Young Leader, there are several aspects which refers to Sustainability and Ecoliteracy, Systems Thinking, the details of the Earth Charter, Leadership and Ethics, Ethical dilemmas. The part that attracts me most is the Sustainability and Ecoliteracy as the world our Earth is facing the problem of pollution. Everything is getting worse and if we do not have any reflection, we may lose our home one day. It is one of the most important and urgent topics in almost every international meetings and organizations. After the study of the Earth Charter, I would like to talk about the thing and give some points.

Sustainable Product Development has gained increasing significance across businesses, government, and academia as the recognition of sustainability impacts throughout the value chains grows (Vilochani, McAlloone & Pigosso, 2024). As the sustainability is more critical in the value chain, we have to pay attention to those kinds of things that do not matters before. The Earth has been polluted and need to be taken care of. It is the only place and home we can have. However, not much people have the awareness to protect the environment as well as the nature that are close to us. The priority is to make the people have the awareness of protecting the environment and take it as the detail that should be careful in daily life. For instance, doing certain kinds of promotion in the youth population works a lot as they are the biggest part of the society and once they are aware of the situation, it will be easier for the middle-aged people to accept. The old should also be take care as they have a fixed habit in their whole life so that it will be more difficult for them to change a certain kind of custom

at a time. While we can give some tiny benefits for them such as sorted garbage has points that can be exchanged for some cheap household goods. Although it is a small cost, they will also be encouraged and change their habit as soon as they can. Sustainability not only appear in the sorting rubbish part, it includes using the recycled energy and products as well. The oil is not the energy that can recycle or clear. It cannot be produced in a short time and produced dirty polluted air. This hurts the environment badly. Promoting the clear energy such as electricity, solar energy or wind energy will help the energy industry change slowly. Using the clear energy to replace the primary energy is a long process, but we have to start to make a difference. If we are not going to do any change, nothing will change and the world will get worse. It is related to every part of our lives. When we are working or studying, we need electricity and it is made from energy. Every person lives in Earth need those things and we should know that even the greatest energy can be used out. Saving the energy is a kind of sustainability either. These are the basic and easy aspects for sustainability.

The development in environmental perceptions and practices represents an overall development in society, policies, and organizations, illustrating a complex interdependency amongst stakeholders. The strategy of sustainable development is the policy approach now being pursued by various countries. Sustainable development means meeting current human needs without compromising the ability of future generations to meet their needs. It is a global issue, including economic, social and environmental aspects. Sustainable development aims to achieve economic growth while improving social welfare and protecting the environment. In terms of economic growth, sustainable development emphasizes inclusive growth, that is, economic growth should benefit all, not just the few. This includes reducing poverty, raising education levels and improving health benefits. Social welfare is the second part, sustainable development emphasizes social justice and equality. This includes the protection of human rights, the advancement of women and the promotion of social inclusion and equality. In terms of environmental protection, sustainable development emphasizes ecological balance and sustainable use of resources. This includes reducing pollution, protecting biodiversity and promoting renewable energy.

To achieve sustainable development, governments, businesses and civil society organizations all need to take action. For example, governments can formulate policies to promote sustainable development; Enterprises can change their production methods and adopt environmental protection technologies and production modes; civil society

organizations can carry out environmental protection activities and raise public awareness of sustainable development. As a developing country, China has always been committed to sustainable development. The Chinese government has put forward the concept of “green development, circular development and low-carbon development” and has given strong support in terms of policies, laws and funds. For example, the Chinese government has enacted a series of environmental laws and policies to promote the development of renewable energy, and has set up a number of special investment funds to support the development of green industries.

To conclude, sustainable development is a global challenge that requires the joint efforts of all countries. Only through sustainable development can we achieve economic prosperity, social justice and ecological balance.

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Study on Feminine Leadership – Based on the Slowdown in GDP Growth

XIA Mingyang

Abstract

According to Altrat’s report “Global Gender Diversity 2022”, in the 20 countries and regions it counted, there are more women on the boards of leading companies than in a decade, of which 44% of the boards of listed companies in France are women, ranking first, and the United States is 31.1%, ranking eleventh. Looking back at Asia, Singapore ranked 14th with 24.2%, India ranked 15th with 18.0%, and Hong Kong ranked 16th with 15.8%. As illustrated in the 2021 Special Report on Female Directors of Listed Companies in China, the proportion of listed companies with female directors has also increased from 46.35% to 76.20% in 10 years. Behind the digital growth is the rise of feminine power, and as society continues to change, the development of feminine leadership can effectively increase the value of enterprises. The innovation of this essay is mainly reflected in three aspects: firstly, the relevant research examines the new momentum of feminine leadership under the new development pattern based on the context of the slowdown in GDP growth; secondly, compared with previous studies, this essay abandons the traditional stereotype of feminine characteristics as the unique characteristics of female managers, adapting to the “Internet+” era, organizational structure by revealing the soft leadership characteristics used and embodied by male leaders in practice; finally, the essay explores the impact of feminine leadership on employee satisfaction and organizational citizenship behavior, and contribute to the sustainable development goal.

Keywords

feminine leadership; sustainable development; industrial structure transformation; employee satisfaction; organizational citizenship behavior

1. Background

1.1 The status of women is elevated

In September 2021, the State Council issued the Programme for the Development of Chinese Women (2021-2030), which proposes that “the proportion of women in the board of directors, board of supervisors and management of enterprises will gradually increase”, which provides a guiding direction for regulators to promote the proportion of female directors. In addition to adopting legislation to clarify the proportion of female directors, regulators such as the Hong Kong Stock Exchange (HKEX), the Nasdaq Exchange (NASDAQ), and the Singapore Exchange (SGX) have also issued relevant regulations, such as amending the corporate governance code and information disclosure rules, to drive listed companies to improve gender diversity on their boards.

1.2 Potential in a macroeconomic context

Frederic Neumann, Chief Asia Economist and Co-Head of Asia at HSBC Global Research believes that the overall global economic growth will slow down in 2024. According to the theory of economic growth, development requires capital investment and technological upgrading, of which capital mainly includes physical capital, financial capital, and human capital. In the context of the slowdown in GDP growth, the improvement of some parts of the company is limited, and more attention should be paid to the improvement of human capital, focusing on employee satisfaction, organizational citizenship behavior, and team atmosphere. To enhance the value of the company, the potential of feminine leadership in the above aspects is worth considering compared to male.

2. Introduction

The research on feminine leadership is not only an enrichment and expansion of leadership theory but also a realistic discussion on gender differentiation. With the continuous development of the social economy, the education level of women continues to increase, the number and proportion of women participating in social and economic activities have expanded simultaneously, and the scenarios of women participating in organizational decision-making as organizational managers have expanded, a certain number of female leaders have emerged in many fields of society as well. Despite this, there is a clear imbalance in the structure of men and women in organizations around the world, both in terms of the number of women in organizations and the proportion of women in leaders. In addition, female leaders may face a series of additional burdens or unfair factors in the process of career advancement and leadership development. Based on this, this essay

reviews the relevant theories of feminine leadership development, sorts out the practical obstacles that affect the development of feminine leadership, analyzes the comparative advantages of feminine leadership in organizational management, and looks forward to the new characteristics, new opportunities and new directions of feminine leadership development under the new development pattern.

2.1 Research and current status of feminine leadership development

Through the literature review, it is found that the research focus on feminine leadership development has transformed the perspective of individual differences to the perspective of intra-organizational factors and then to the perspective of multiple influencing factors, and the research paradigm has realized the transformation from the “homogeneous paradigm” of equal rights between men and women to the “staggered paradigm” of multiple interactions. With the improvement of various social policies and systems, great progress has been made in the protection of feminine rights and interests’ development around the world, but the development of feminine leadership still faces certain practical obstacles in terms of status, role, and opportunities in organizational management, where there is still great room for improvement in some respects. For instance, UN Women and the United Nations Economic and Social Council (ECOSOC) have released Progress on the Sustainable Development Goals: The Gender Snapshot 2023, which reflects that the status quo remains worrying at the halfway point of the 2030 Agenda for Sustainable Development. Despite global efforts, gender equality remains unachieved. The gender divide at the leadership level remains deeply entrenched, and at the current rate of progress, the next generation of women will still spend 2.3 hours more per day than men on unpaid care and domestic work. Based on Fortune magazine, a total of 106 CEOs will step down in the first half of 2023. Women make up only 13 percent of the CEOs replaced, suggesting that the proportion of women in senior leadership roles in organizations is still far lower than that of men.

2.2 Theoretical mechanisms

2.2.1 “Glass ceiling” and “glass cliff” theory

An early representative study of the dilemma of feminine leadership development is the “glass ceiling” effect proposed by Hemowitz and Sherhart in 1986, that is, women may face a series of stereotypes or organizational biases and other obstacles that limit their promotion

and leadership development within the organization, because these biases or stereotypes are hidden, so it is called the “glass ceiling”. Since then, researchers have further explored the “glass ceiling” effect and found that women may face discrimination in the division of positions or responsibilities when they first join the organization, resulting in a weaker starting point for leadership development than men, known as the “sticky floor” phenomenon.

In addition, women may face pressures or barriers from their surroundings, peers, and leaders due to their gender identity in the course of their work, which can lead to “glass cliff” restrictions in the promotion process. Women are more likely to be placed in marginalized leadership positions or uncertain positions after breaking through the “glass ceiling” and being promoted to leadership positions, which puts pressure on feminine leadership development. Compared with the “glass ceiling”, which focuses on the development results of feminine leadership, “Glass Quiet Wall” pays more attention to the obstacles encountered by women in the process of work, as well as the new problems that may be faced in the development of feminine leadership after achieving a phased leap.

2.2.2 “Labyrinth” theory

Since the beginning of the 21st century, with the improvement of organizational structure and management rules and regulations, as well as the improvement of the awareness of the protection of the rights and interests of female leaders within the organization, the situation of female leaders facing the dilemma of “glass ceiling” and “glass cliff” has improved. The most representative is the “labyrinth” theory proposed by Aigley Alice et al., which further expands the existing research on the “glass ceiling” and believes that women face three barriers in the development stage of leadership, and named them “cement wall”, “glass ceiling” and “labyrinth” respectively. The first “concrete wall” reflects the well-known and insurmountable objective and institutional barriers faced by female leaders, such as restricting feminine participation in leadership competitions through various conditions; The second “glass ceiling” represents the hidden barriers that limit feminine leadership and promotion to leadership positions; The third “labyrinth” represents the social or cultural factors that affect feminine leadership development beyond the “glass ceiling” and within the organization in modern society, such as family responsibilities and social stereotypes. From the “glass ceiling”, “sticky floor”, “glass wall”, and “glass cliff” to “labyrinth”, it can be seen that the theoretical research on feminine leadership development

has changed with the changes in the social environment and economic development, and at the same time, the problems faced in the process of feminine leadership development and promotion have become more complex, hidden and diverse.

3. Managerial advantages of feminine leadership

3.1 Mobilize the enthusiasm of employees

Female leaders have stronger affinity and empathy skills, are more able to demonstrate excellent coordination and communication skills in organizational management and use more non-command methods to influence organizational members, such as communication, encouragement, recognition, guidance, and other flexible means. Female leaders can more keenly perceive the emotional changes from the members of the organization, more accurately grasp the real emotions and expressions of the members on the work of the organization, and timely adjust, coordinate, and intervene in the work content and members according to non-verbal feedback such as emotions, which is conducive to enhancing the vitality and cohesion of the team and improving the work efficiency of the team. In addition, the feminine leadership style is also conducive to creating a good team atmosphere and working environment, while improving employee satisfaction and happiness, the organizational citizenship behavior is further enhanced, which can not only reduce the cost of information transmission in the organization's work, but also have a positive impact on the team's work and task completion.

3.2 Enhance decision-making prudence

On the basis of research, female leaders are more risk-averse than male leaders and make more prudent decisions in the management process. Generally speaking, female managers can effectively curb problems such as over-investment and financial fraud and are more cautious in decision-making on financial leverage and radical investment schemes. At the decision-making level, gender diversity in the board of directors can bring diverse ideas and experience to the company and improve the decision-making efficiency of the board of directors, and in terms of risk supervision, the prudent attitude of female directors can improve the stability of the company's capital structure, so the improvement of female leadership can improve the rigor of the decision-making process, effectively enhance the prudence of organizational decision-making, and reduce the probability of organizational

risk events.

3.3 Pay attention to the sustainable development of the organization

Relatively speaking, women as leaders may consider more group interests and social benefits of decision-making, that is, the prosocial preference of female leaders is conducive to the fulfillment of corporate social responsibility. Research in behavioral economics has found that women are more altruistic and fair-minded than men in terms of prosocial behavior. To be specific, women-led organizations or groups may place more emphasis on charitable giving, increased disclosure of social responsibility information, and more. Daniel Yiu, a researcher at a well-known ESG consulting firm in China, analyzed Wall Street and concluded that “Female directors can also guide companies to pay more attention to ESG issues such as gender diversity in the workplace and environmental protection, and improve corporate ESG management.”

4. Research prospects for feminine leadership in China under the new development pattern

4.1 New direction of feminine leadership based on the trend of industrial structure transformation

The upgrading and transformation of traditional industries have accelerated, and a large number of emerging industries have been born, providing new ways for women to exert their leadership. For one thing, thanks to the transformation of the economic structure from commodity production to production and service, a large number of jobs suitable for women to participate in work have been created, and it also provides a broader path choice for feminine leadership development. Specifically, the development of the e-commerce industry has given rise to several new forms of female entrepreneurship, such as live streaming, and some women have become managers of e-commerce enterprises on their own and have played the unique advantage of female leadership. In addition, the development of the service industry has become the leading factor in China’s economic restructuring and upgrading in the new development stage, and most of the new industries and new business formats focus on service experience. In the “Internet+” era, both male and female managers must adopt a more flexible and democratic leadership style, use non-power influence, create a good team atmosphere, pay attention to the individual growth of employees, stimulate

employees' organizational loyalty and enthusiasm for innovation, and promote the sustainable development of the organization which makes it easier for women to use their leadership strengths as a good communicator and empathy, and to get job advancement opportunities and leadership development.

For another, the digitalization process accelerates the upgrading of emerging technologies, reduces the location restrictions in organizational management, enables more married women to choose their jobs flexibly without leaving home, and alleviates the contradictions faced by women in the process of personal development childbirth and family responsibilities. Based on this, the construction of a supporting environment for feminine leadership development and the practice of innovation and entrepreneurship under the new business format, the transformation and development of feminine digital leadership, and the boundaries and new changes of feminine leadership under the condition of remote work are important issues that need to be studied in the future.

4.2 New opportunities for Feminine leadership in the context of organizational structure change

The flattening of the organizational structure of enterprises is one of the main directions of organizational structure reform, which provides new opportunities for feminine leadership merits. The traditional enterprise structure is mostly a pyramid organizational structure, while the modern organizational structure is mostly flat and networked. With fewer levels of flat organizational structure and more emphasis on the role of self-management, women will objectively face fewer levels of resistance to promotion and more opportunities to exercise leadership. Additionally, the power orientation in flat and networked organizations is weakened, and individuals in the organization are more responsible for task objectives rather than only their superiors. Furthermore, the leadership style is gradually transformed into motivation and atmosphere creation, and the importance of controlling the working atmosphere and mobilizing the enthusiasm of subordinates in leadership has been improved, the leadership advantages of female leaders focusing on consultation and flexible management will be further amplified as well. Therefore, organizational change and innovation, as well as feminine leadership development in complex scenarios, feminine leadership environmental construction, and other related issues will become the focus of further attention.

4.3 New momentum for Feminine leadership in the process of modernizing the national governance system and governance capacity

Under the new development pattern, the modernization of the national governance system and governance capacity has accelerated, and the requirements of the reform of “delegating power, and improving services”, promoting common prosperity, and sustainable development strategies have injected new momentum into the development of contemporary feminine leadership. Women are important participants and decision-makers in the process of modernizing national governance, and the role of feminine leadership is increasing. First of all, in the process of the evolution of government agency supervision from direct management to a social governance system, the traditional strong supervision model has gradually changed to a collaborative governance and flexible management model, and the opportunities and platform space for female leaders to give full play to their own caring and management advantages have increased. Second, the demand for promoting social equity, harmony, and stable development has been further increased, and there are still a considerable number of problems involving women and children in the current grassroots governance. Based on this, in the process of modernizing the national governance system and governance capacity, feminine participation in the decision-making and optimizing the structure of female leadership in grassroots organizations are important issues that need to be further explored.

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Giving the Clean Face Back to the River

—Taking the “September 29” sodium cyanide leak into the Danjiang River as an example

LI Pengjie

Abstract

Since the beginning of this century, with the rapid development and progress of human society, it has also brought a worrying phenomenon—environmental problems are becoming more and more serious. It reflects a fundamental problem behind: people’s awareness of ecological environmental protection needs to be improved. Among these various environmental problems, water pollution is particularly prominent, which deserves to be addressed by all human beings together. This text takes the “September 29” sodium cyanide leakage in Danjiang River as an example to discuss the seriousness of water pollution and how human beings should face it.

Key words

leakage; water pollution; awareness of environmental protection; community

Background

On September 29, 2000, more than 10 tons of highly toxic sodium cyanide leaked into the Tieyu River in Huamiao Village, Danfeng County, Shaanxi Province, China. According to local residents, at about 3 am, they heard a “boom” sound, and immediately got up and found that a truck at the door had overturned into the river, and there was a strong irritating taste around, and only felt that their throat was dry and their head was stuffy. At this point, we can probably understand what happened, but how did it happen, by accident or on purpose? Was it a natural accident or a man-made accident? This relates to the relevant personnel and companies in this case.

In July 1999, Hu Baolin and his colleagues signed a contract with Sifang Gold Mine, Danfeng County, Shaanxi Province, to transport sodium cyanide from Jinniu Company, Zaoyang City, Hubei Province, to Sifang Gold Mine. In September 2000, Hu Baolin secretly

hired Deng Xiaoqi, who was not qualified to transport dangerous goods, to transport sodium cyanide. At around 2:50 am on the 29, Hu Baolin, an individual driver, pulled about 10.39 tons of sodium cyanide from Jinniu Chemical plant in Hubei province and overturned into the Tieyu River when he arrived in Danfeng County. The sodium cyanide then leaked into the river, most of which seeped into the riverbed.

After the incident, the police and the media also quickly intervened. Sodium cyanide as a highly toxic substance, not to mention a huge amount - more than 10 tons, its pollution to the river is self-evident. The Tieyu River is located in the upper reaches of the Danjiang River, which is not only an important part of the South-North Water Diversion project, but also joins the Han River at the mouth of the Danjiang River to become the Yangtze River. It can be seen that this time of pollution, is a ring buckle a ring.

But is that all there is to the ecological danger? I think there are two other implications that should not be ignored.

Firstly, after the sodium cyanide leak, a considerable amount of it seeped into the river bed. The pollution of the river soil may not spread as fast as sewage, but the toxic and harmful substances in it will continue to dissolve into the water in the following days, and even more, it will penetrate into the ground and pollute the underground river water. And eventually, in the circulation of the river system, it spreads to the sea.

Secondly, the ecological status of rivers also includes biodiversity. Obviously, the deterioration of water quality will threaten the fish, algae and other organisms in the river, and even accelerate the reduction of the number of precious organisms. As the habitat and growth environment of aquatic organisms, rivers must be reasonably protected. Only in this way, aquatic organisms can be better as an important life unit of aquatic ecosystems, form intricate food chains, and play a good role in energy flow and material circulation.

Reflection

Up to this point, we have basically grasped the ins and outs of the “September 29” incident. It is not difficult to find that in the entire accident, both individuals and other companies and organizations bear responsibility. As to their series of behaviors, there are a few aspects worthy of our deep thinking.

First, in the production and management of highly toxic goods, the state must supervise well, have clear regulations on the production quantity, clearly grasp the post-natal destination, understand the manufacturer's management methods for highly toxic goods, and

regularly inspect them. Of course, after the discovery of violations, decisive and correct penalties should be made, and improper behavior should be strictly remedied by legal means.

Second, as a market transaction behavior, the sodium cyanide transaction must involve relevant market trading rules. In terms of market supervision, the supervision is not enough, and the supervision system is not perfect. Relevant market institutions shall implement clear information on trading personnel.

Third, the people involved obviously did not establish a correct awareness of ecological environmental protection, and they did not comply with the law. As long as they could take into account the adverse consequences, there would be no huge compensation and heavy losses in Danfeng County. It can be seen that we still need more powerful social propaganda, to spread the correct code of conduct and environmental awareness, to take every evil crime as a warning, and strive to avoid the recurrence of accidents.

Fourth, after any sudden environmental incident, we must implement emergency preparatory measures. Some authorities only think that they can deal with the problem in their own area, but a perfect sewage treatment system needs to control the danger to the minimum, rather than the fastest treatment, and needs to have a global awareness.

Conclusion

Similar to the “September 29” sodium cyanide leak Danjiang River accident there are many cases, but whether it is oil or highly toxic substances, whether it is leakage or explosion, they have caused tragic damage to our ecology. As long as everyone throws away less garbage, wastes less water, and shares more responsibilities, everything will be different. As the source of life water, they should have a clean face, gentle and friendly. The human beings at the top of the pyramid, taking disposals, trading ecology for economics, pursuing their own so-called good life. When we have clean faces, please also give our rivers a clean face.

Exactly as said in the Principle 1 of the Earth Charter: Care for the community of life with understanding, compassion, and love. Secure Earth’s bounty and beauty for present and future generations. We should protect nature while enjoying the gifts of nature, which is also to protect ourselves and protect our future generations.

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Women Need More Decision Makers: on Gender Equality and Female Leadership

ZHOU Zhiyu

Abstract

During the successful completion of the “Leadership, Sustainability and Ethics” online course with the Earth Charter for Education for Sustainable Development, I chose to reflect on female leadership and gender equality to think deep about Women need more decision makers in the future world.

Keywords

gender equality; female leadership

1. Introduction

Gender equality is the cornerstone of social progress and development, which is why gender equality is so important today for individuals and for society as a whole.

2. Definition and importance of gender equality

Gender equality is embodied in equal opportunities, rights and treatment and the elimination of gender-based discrimination. It is of great importance to promoting the core values of social fairness, justice and equality, and has a positive impact on economic and social progress.

It is still unusual for many women to hold high positions in politics and business despite the fact that most societies believe that gender equality is correct. This undoubtedly reflects the social stereotyping of male and female roles and gender stereotypes. The urgency of gender equality and the need to take action to eliminate gender inequality are reflected in:

- 1) Encourage women to engage in science, technology, engineering and mathematics;
- 2) Transform the education system and break the gender bias;
- 3) Challenge the traditional concept of gender roles;

- 4) Cultivate a culture that respects gender diversity.

3. Current gender equality challenges

Women are underrepresented at decision-making levels. Statistics shows the proportion of women in senior positions. There is a huge gender imbalance in the top management of companies.

Proportion of female representatives in government is lower. To underlying causes of women's underrepresentation in business and government, These include but are not limited to the following:

- 1) Cultural concepts and social expectations: In many societies, there are inherent concepts and prejudices about gender roles, which regard men as a model for leaders and decision makers, and women as the main responsible persons in the family and private spheres. These concepts have influenced people's perception and expectations for women to play a leading role in enterprises and government.
- 2) Gender discrimination and prejudice: Even when gender discrimination is prohibited by law, prejudice and discrimination against women still exist in many places. This may be manifested in unfair promotion opportunities, pay gaps, and unequal working conditions, which limit the representation of women in enterprises and the government.
- 3) Lack of support and resources: Many women face multiple pressures from family, society and the workplace when pursuing leadership positions, including family responsibilities and insufficient career development opportunities. The lack of appropriate support systems and resources, such as parental leave and flexible work arrangements, may make it more difficult for women to balance career and family life, thus affecting their representation in enterprises and the government.
- 4) Gender bias in leadership: Many enterprises and government agencies have a male-dominated culture and structure in the leadership. This culture and structure may lead to limited opportunities for women's promotion and a lack of women's voice and perspective at the decision-making level.
- 5) Inequality in education and training opportunities: Women may face inequality in education and training opportunities in some regions and societies, which limits their access to senior positions and leadership.

Solving these deep-seated problems requires comprehensive efforts, including changing social and cultural concepts, formulating more fair and inclusive laws and policies, providing more support and resources to women, and establishing a working environment and organizational culture that encourages and supports women's participation in leadership.

There are also many social stereotypes about female leaders: Our society sometimes tends to portray female leaders as emotional, effeminate, or overly concerned about the emotions of their employees. This can lead to a perception that female leaders lack firmness and decisiveness.

Female leaders' leadership styles can sometimes be questioned, especially in leadership positions that emphasize decisiveness and decisiveness. Some may question the competence of female leaders, believing that they are not as qualified for leadership positions as men. Female leaders sometimes receive excessive attention and evaluation for their appearance and clothing, which is usually not seen in different degrees for male leaders. This can lead to women leaders feeling extra pressure in professional Settings.

Female leaders may face stereotypes about how to balance career and family responsibilities. Sometimes people may wonder if they are able to balance their professional and personal lives, which is usually an issue that male leaders are less likely to face. Female leaders may sometimes have a harder time getting promoted, even if they excel at their jobs. This may have something to do with some underlying gender biases, stereotypes about gender roles, and organizational culture.

It is important to note that these stereotypes are not universally applicable to all people, and as society changes and awareness increases, people's understanding of gender equality and diversity is gradually changing. More and more organizations and societies are beginning to value equal opportunity and strive to eliminate these stereotypes in order to create a more inclusive and just work environment.

4. Measures to promote women's leadership

A. Education and training

- 1) Improve women's education
- 2) Providing leadership training and opportunities

B. Breaking gender bias

- 1) Opposing gender

- 2) Supporting a culture that encourages equal opportunity
- C. Creating policies that support
- 1) Implementing incentives to encourage companies to increase the proportion of women in leadership
 - 2) Promote policy changes to ensure equality of sex death

5. Conclusion

There is great urgency and importance in promoting more women decision-makers. The representation of women at decision-making levels is critical to ensuring gender equality. Having more women in decision makers ensures that women have a voice at all levels and that women's interests and needs are better represented.

Women make up more than half of society, but are often underrepresented at decision-making levels. The presence of more women decision-makers is a better indicator of the true makeup of society.

The presence of female decision-makers can serve as role models and mentors for other women, inspiring more women to participate in the leadership and decision-making process. More women in decision-making can create more opportunities for other women, break down gender discrimination and gender gaps, and promote gender equality. Overall, the presence of more women at the decision-making level is critical to promoting the development of female leadership and advancing gender equality. This requires measures at the government, business, and organizational levels, including encouraging women's participation in leadership selection, developing gender equality policies and laws, and providing training and support. Only in this way can a more just and equal society be achieved.

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Research on Image Construction and Communication in Developing Countries in the Era of New Media: A Case Study of China Daily's Series of Short Videos

MENG Xingyan

Abstract

In today's era, the key for developing countries to gain the right to speak in the international community is to construct and disseminate their national image overseas. Taking the series of videos of China's official media People's Daily as an example, this paper focuses on the analysis of the summary and differences of the short videos of China Daily at home and abroad; The help of short video communication to spread the country's image overseas; This paper examines the characteristics of the Chinese image construction of China Daily's short videos from three perspectives: "self-shaping" and "other shaping", breaking stereotypes, and choosing most of the narrative subjects, and puts forward suggestions for the innovation of its overseas communication mode.

Keywords

China's image; China Daily; new media era; international communication

Introduction

As China's official media, "China Daily" plays an important role in the process of spreading the country's image to the outside world, it is China's national English-language daily newspaper, founded in 1981, with an average circulation of more than 900,000 copies worldwide and more than 600,000 copies overseas. The most well-known communication media of "China Daily" overseas are mainly paper newspapers and web news, but with the rise of financial media in recent years, the short video series of "China Daily" came into being, which is widely popular overseas in a more vivid and intuitive form, complementing each other with the written media, telling the "Chinese story" to the audience, conveying the "Chinese voice",

and deeply affecting the construction of China's image and its overseas dissemination.

1. Analysis of the similarities and differences between the Chinese content and English content of the short videos of China Daily

1.1 Short videos on Chinese media platforms

The new media platforms launched by China Daily's short videos in China are mainly Bilibili (B station), Tiktok, Kuaishou and other cultural communities and video platforms that are widely loved by the Chinese people. As of December 2023, there are 37.747 million followers on Tiktok, and the main sections of video content are: columns, reporter letters, watching the world in a week, when the Winter Olympics are in progress, global fax, magical China, etc. The specific contents include: the record of the regular press conference of the spokesperson of the Ministry of Foreign Affairs, the telling and interviews related to the Belt and Road, the analysis of the international situation, the introduction of Chinese history and folk customs, and the introduction of China's excellent traditional culture and intangible cultural heritage.

On domestic video platforms, diplomatic and economic videos are more serious and formal, such as "Continue to pay close attention to the security situation in northern Myanmar and provide assistance to Chinese citizens", "China is deeply shocked by the attack on the hotel of the United Nations staff residence building in southern Gaza and strongly condemns it", "Lin Yifu refutes that China's economy may encounter a bubble trap: China will not follow in Japan's footsteps" and other content. Historical and cultural videos are lively and interesting, and the tone of the video content is also relatively relaxed, such as "What are the secrets in the six-character proverb tablet in the Mogao Grottoes in Dunhuang?" "Datang Comments: Top 1 of the Millennium Silk Road Business Travel Must Eat List" and so on.

1.2 Short videos on English media platforms

The main overseas media launched by China Daily are: YouTube, Facebook and other video platforms with high usage by overseas people, among which, as of December 2023, China Daily has more than 100 million followers on Facebook, which is enough to prove its popularity overseas. Compared with the more official, professional and time-sensitive video content such as speeches, columns, and cultural science popularization of foreign affairs on

the Chinese platform, the video content on the English platform is more cultural science popularization, such as “Festival China Talks about China Festival” series of 12 episodes, “Mid-Autumn Festival”, “Changing China” and so on. Compared with conveying the views of current affairs and mainstream Chinese news media to overseas audiences, *China Daily* focuses more on disseminating traditional Chinese culture, traditional folk customs, and the rapid development of China.

1.3 Analysis of the differences between Chinese and English videos

Although the content of the Chinese short video and the English short video of *China Daily* are similar, the overall difference is quite large. We would like to analyze from three aspects: video title, audio-visual language, and account positioning.

Most of the video titles on the domestic platform of *China Daily* are sentence-based, with interesting and colloquial words, many of which come from the popular online culture that is widely loved by Chinese audiences, and have a strong appeal to Chinese audiences. On English-language platforms, most *China Daily* video titles are short and concise, mostly using only one topic noun to form the title, such as “Discover China” and “Spring”, while more detailed and specific video introductions will be marked below the title. The writing of this kind of headline not only conforms to the writing characteristics of overseas media mainly in Europe and the cultural background of Western audiences, but also does not lose the characteristics of China.

In terms of audio-visual language, most of the short video soundtracks for overseas use Chinese folk instruments such as guzheng and erhu, and the pictures are mostly Chinese ink paintings, Chinese painting styles, traditional Chinese architecture, and natural scenery. Compared with the more professional, detailed and niche Chinese platform popular science videos, English videos are more understandable and popular, and the production is more inclined to promotional videos. The content of the video on the Chinese platform pays more attention to the reality and restoration of the scene, mostly using simultaneous sound and simple soundtrack, and the style is more inclined to the news column.

The Chinese account of *China Daily* is introduced as “If you want to know wonderful global short Videos, just watch *China Daily*” and the English version of the account is “Your fast way to all things China. Join the conversation!” The two different brief account introductions reflect the positioning of *China Daily* as a window for China to understand the

world, and for the world to understand China. The author's research found that there are more Chinese as hosts and narrators on English-language platforms such as Facebook, and some videos are selected from Chinese social platforms such as Tiktok; On the Chinese platform, there are a large number of foreigners as interview subjects and narrators, and a certain number of videos are selected from foreign media such as YouTube and Sky news; On the Chinese platform, there are more foreign ministry speeches, domestic news and diplomatic news on the Palestinian-Israeli conflict, while on the English platform, there is more content on the Belt and Road economic cooperation, world economic and ecological issues, and the excellent traditional Chinese culture. For different audiences at home and abroad, China Daily's video content is also diverse.

2. The help of short video form to build and disseminate the national image

2.1 Build an image of a cultural power with rich historical and cultural heritage

“Searching for Kung Fu: 12 Traditional Chinese Values”, which integrates traditional Chinese values such as benevolence, filial piety, loyalty, courtesy, love, and righteousness into traditional Chinese martial arts, Peking opera, Taoist culture, and “Romance of the Three Kingdoms” stories such as Zhuge Liang's tears and slashing horses, burning Xinye, Yifang Cao Cao, and White Emperor City Tuogu. Through the mouths of Peking Opera artists, foreign professors, and martial arts inheritors of the Wudang Sanfeng School, it is told by people of different identities and professions, so that overseas audiences can understand Chinese values in a more three-dimensional way. Integrating these traditional Chinese values with international issues, such as integrating “integrity” with the context of international climate negotiations, is more conducive to overseas audiences understanding the profound meaning and greatness of these values, and recognizing that China also follows traditional Chinese values on international issues.

The CPC Central Committee with Comrade Xi Jinping at the core adheres to cultural self-confidence and self-improvement, constantly consolidates cultural subjectivity, emphasizes the extraction of the cultural essence with contemporary value in the excellent traditional Chinese culture, and displays the spiritual identity of the excellent traditional Chinese culture with world significance. China Daily's selection of cultural symbols such as “Chinese martial arts, Chinese costumes, and traditional festivals” that are popular with overseas audiences reflects its excellent communication strategy, and the high number of views of such videos also reflects

the recognition of more and more people for traditional Chinese cultural values.

2.2 Tell the story of China seeking the common development of all mankind

In international cooperation and global governance, in 2013, General Secretary Xi Jinping proposed the “One Belt, One Road” initiative, which is a manifestation of China's active responsibility and mission as a major country. China Daily actively focuses on the “Belt and Road” information. Interviews with the 7th “Belt and Road” Youth Maker Camp and Teacher Seminar (“Thank you, Chongqing!”: An Unforgettable Journey of Cooperation and Creation), Where the China-Europe Train Sells, How the Internet Changes Africa Series Videos, There are also videos showing China’s role as a great power in the world, such as: China among leading countries for internet economy, How China works: The digitalized future series of videos, etc. China Daily's short video showcases China’s achievements in scientific and technological innovation, economic development and social progress.

By reporting on China's image as a major science and technology country and the Belt and Road Initiative that benefits people around the world, it conveys China's contribution to global innovation and development. China Daily's short video presents China's concerns about international affairs, global challenges, international cooperation and other issues from a global perspective, and shows China's active participation in and efforts to promote solutions. China Daily's short videos convey China's peace, development, cooperation, multilateralism, etc. By elaborating on the connotation and practice of these values, it conveys China's responsibilities and responsibilities as a major country.

3. Characteristics of China's image construction in short videos

3.1 From arbitrary “other plastic” to objective “self-plastic”

In today’s pattern of international communication, China's national image building is facing a series of difficulties. The author believes that the problem of unsound discourse system in China is the most significant. In the scene of international communication, Western countries represented by the United States have always intended to encroach on China’s right to speak and interpret, if the right to speak on China’s national image is in the hands of the West, then China will be in a disadvantageous position of “the stared”, and this model of “other shaping” is extremely unequal for China.

However, in the process of pursuing audience identity, it is possible to fall into the misunderstanding of excessive pursuit of audience identity and lose the original intention of their own communication, so it is very important to maintain a balance between catering to the needs of the audience and firming their own positions, and the key to maintaining this balance lies in clarifying the positioning of the column.

China Daily is positioned as China's official media, and although its video content will be customized according to overseas audiences' understanding of Chinese culture and policies, the core and essence of its video content is to tell Chinese stories and convey Chinese voices from a Chinese perspective. Therefore, China Daily's short video series is an excellent example of analyzing the current situation of overseas "other plastics", making timely adjustments, and turning passivity into initiative, which is conducive to truly realizing the return of the right to discourse and the right of cultural interpretation, and realizing the "self-shaping" of the national image.

3.2 Eliminate stereotypes and build a three-dimensional image of Chinese

Over the years, under the Western-dominated discourse system, the image of Chinese has been mostly portrayed as "slender eyes and high cheekbones", which is far from the appearance of the vast majority of Chinese citizens; the image of speaking loudly in public, not being polite, and "buying, buying, buying" overseas; Some foreign media have even demonized China, believing that China lacks "democracy and freedom" and vigorously advocating the "China threat theory". If it leaves a more stereotypical impression in the minds of Westerners, it is undoubtedly one-sided, not objective, and unfavorable for us, and the accumulation of long-term stereotypes will confuse the cognition of overseas audiences and hinder China's dissemination of the true national image overseas.

The real Chinese's appearance, manners, state and mentality, living habits, as well as the urban development, rural landscape, people's working and living environment of Chinese society, vividly show a more real and three-dimensional image of China in the short video of China Daily. Breaking stereotypes doesn't need to be argued, just the real side is presented to foreign audiences. For example, in the documentary series "Discover China" launched by China Daily, 19 videos of less than ten minutes fully show foreign audiences the historical changes in China's reform and opening up in the past 40 years, and the continuous prosperity of various cities in the reform and opening up, showing the social outlook of China's reform

and opening up for more than 40 years in the form of documentaries, and breaking the stereotypes and prejudices created by some foreign media against China.

3.3 Multi-dimensional narrative subject selection, real scene presentation of real China

The construction of a national image is not a one-way communication model, but involves the interaction of multiple subjects. In the cross-cultural communication of multiple subjects, China Daily's short video series focuses on China's diplomacy, Sino-foreign cultural exchanges, international cooperation and other directions, realizing the multi-subjectivity in the shaping of the national image and making the national image more multi-dimensional and three-dimensional.

Different from Li Ziqi and other individual narrative communication models from a personal perspective, China Daily's short video overseas distribution belongs to the dissemination of China's official media, which can more authoritatively show ideological content and some grand narratives, and from the perspective of the production quality of video content, the material materials of official media are more real and detailed, which can show China's image from a more comprehensive and holistic perspective.

Although it is indispensable to show the grand narrative communication mode of China's basic position and ideology, in the external construction and dissemination of the national image, the propaganda effect of the grand narrative is often unsatisfactory from the perspective of the communicator, so it is very important to start from the perspective of the "other" and take the individual as the unit.

4. The effect of short video construction and dissemination of national image and development suggestions

4.1 Feedback from foreign audiences

China Daily short video series is very popular overseas, and the number of plays, fans, and likes on some overseas platforms even exceeds the Chinese videos released on the domestic platform of China Daily, making China Daily short video one of the few official media short videos that are more well-known and popular overseas than in China.

Compared with political and economic videos, videos showing the culture of various ethnic groups in China and China's great rivers and mountains have the largest overseas

audience, such as “Wear Spring” on your head. The Dai people make various kinds of head-dresses out of flowers! As of December 2023, this video has received 88,000 likes and 364 comments on Facebook. The comments on this video are in different languages, the comment users come from various countries, the most comments are in English, other languages are mainly from countries along the “Belt and Road”, the comment content mainly focuses on praising the Dai girl clothing and jewelry is very beautiful, full of goodwill and appreciation, and the Unboxing China series, as of December 2023, it has also received nearly 10,000 likes and dozens of comments full of approval, and under the video showing the Chinese landscape, there are also many audiences who express “I want to go” , and “I want to see it”.

These data show that China Daily’s video series has a certain appeal to overseas audiences, and the feedback is basically positive content, demonstrating the trust and recognition of China Daily and the respect of overseas audiences for Chinese communicators.

4.2 Dissemination of Recommendations

Through research and analysis of the feedback from overseas audiences on the Facebook platform, we can find that although the short video of China Daily has achieved a certain degree of effectiveness in the process of disseminating the country's image overseas, there is still a lot of room for improvement.

First of all, the content needs to be optimized. China Daily's most popular video content on overseas platforms is often Chinese style, and when it comes to China’s diplomatic stance and world economic cooperation content, the attention needs to be improved, the main reason for this phenomenon is that such video content itself has serious and formal characteristics, lacks entertainment, and is not easy to arouse the audience’s interest in watching. The author believes that in order to achieve from hard propaganda to soft promotion, it is not only necessary to show China's magnificent development process, but also to reflect the achievements of China's national rejuvenation from a micro perspective, such as reflecting more small people and stories, and using micro narratives to reflect the country’s development in a “peeping” way. At the same time, the use of micro-narrative can also distinguish China Daily from other Chinese state media such as People’s Daily Online, which mainly rely on grand narrative thinking, and make Chinese stories more three-dimensional and realistic.

On the premise of fully summarizing the content of the interview and adhering to the basic stance, the China Daily series of videos can also integrate more theoretical content such as economic cooperation reports with richer and interesting audio-visual language instead of a single news-style interview and introduction, so as to make the video more attractive. On the basis of conveying cultural confidence, road confidence, and showing China's development to the world, as China's official media video content, it is also necessary to focus more on China's hot issues that the world is concerned about, and give China's answers to these questions, demonstrating more institutional and theoretical confidence. China's responsibilities and responsibilities as a major country should be emphasized, and its contribution to international affairs should be demonstrated. For example, reporting on China's efforts in global environmental protection, poverty alleviation and development assistance, as well as its participation in the maintenance of international peace and security, thus demonstrating China's image as a major country with a sense of responsibility and mission.

Secondly, the intensity of transmission should be increased. Having a variety of information codes means that the information recipient groups covered by the communication are more likely to be presented, and different information codes can be presented through different communication carriers. Compared with China Daily's text version of web news, video series are still in their infancy, and there is a lot of room for development in overseas popularity and popularity, and in the new media era, cross-media communication is the general trend.

Increase the frequency of video content, increase the release of video forms that are popular with overseas people, and enrich the diversity of video content, so that the quantity and quality of video series can truly complement the main text content of China Daily. Through the release of video content, the audience is more extensive, while retaining the authority of traditional media, giving full play to the advantages of strong interactivity of new media platforms, making the dissemination of the national image more diversified, and realizing the sinking dissemination of China's national image overseas.

Audio-visual discourse has incomparable innate advantages such as overcoming the barriers of text communication, meeting the new needs of media audiences, and having visual persuasion appeal, and can use audio-visual discourse to construct a national image. Communicators in developing countries should learn from the successful cases of China

Daily's overseas communication, give full play to the important role of short videos in building and disseminating the national image, and establish a real and three-dimensional image of China to the world.

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Understanding Development of Gender Equality

LIU Wenshuo

With the development of The Times, people has been paid more and more attention to gender equality. Gender includes two aspects, one is biological sex, is determined by the chromosome of the biological anatomy of the body difference, it is divided into male and female; One is gender, which refers to by acquiring learning ,divided into gender role with different temperaments. Such as male temperament and female temperament. So, what exactly is the definition of gender equality? Lots of people have a big misunderstanding of this definition. Their focus is on biological sex. They think that gender equality is to ignore the biological differences between men and women. Scholars, on the other hand, focus on social gender, think that real gender equality should be promoting harmonious and mutual assistance between men and women. Whether male or female, all can enjoy equal condition to achieve their human rights, such as equal participate in cultural, economic and political activities.

People have many gender stereotypes. For example, men are strong, so they biased towards going outside to work, and bring home the bacon. Women are weak, so they biased towards staying at home, do housework and take after children. So we always hear “housewife” instead of “househusband”. In the workplace, females suffer from implicit discrimination, especially those of child-age. Companies pursue lower labor costs and higher working efficiency. Because of female physiological structure, they may pregnant. According to the rules, companies have to give them paid maternity leave. That is why there is gender inequality in the workplace. In teams of career choice, when people talk about firefighters, they subconsciously think of man, and when they talk about kindergarten teachers, they subconsciously think of women. This also reflects the traditional thought .In appearance, men are deride and criticized for wearing women's clothing, and women are pointed the fingers or being watched by bad person when wearing too revealing clothing. Gender equality is about breaking down these antiquated concept.

The United Nations has also made great efforts for gender equality. Throughout the history of the United Nations, thanks to the dedication of countless female and male pioneers, gender equality and women's human rights have been at the center of the three main goals

of the Organization's work: peace and security, development, and human rights. At the very beginning of the United Nations, when the global women's movement was emerging, gender equality was written in the UN Charter. Then it started to develop and improve, the United Nations held several times the World Conference on Women. Since 1995, the proportion of female representatives in national parliaments has doubled, from 11 percent to 22 percent. This fully reflects the progress of women in political decision-making.

Gender equality has brought light to women. Compared with 15 years ago, more girls can go to school to equally enjoy educational resources, and many regions have achieved gender parity in primary education. Women in non-agricultural employment has increased from 35 percent in 1990 to 41 percent today.

But gender equality has not been fully achieved, now it's just going in a good direction. In the world, women earn 24% less than men in the same job; Moreover, women are responsible for nearly two and a half times as much unpaid care and household work as men. Gender inequality in education is particularly serious in some rural and poor remote areas. In the actual marriage life, women are still affected by the traditional idea and the widely existing in society thought of son preference. There are many other cases like this that show that gender inequality still exists. It will take a long time and lots of strive to fully realize gender equality. For example, women's right of speech in politics, At the current rate of progress, it will take another 50 years for women to achieve equal political representation.

Now lots of people realized the key to promote gender equality. We should not be too detailed and specific to divide work into men's work and women's work. What we should do is to change men's work and women's work into adult work.

According to research findings, women are more aware of gender equality than men. As a result, the majority of gender equality advocates and workers are women. Such as Betty Friedan, a famous contemporary American feminist, social reformer and one of the representatives of liberal feminist thought. She actively supported social reforms to eliminate overt or covert discrimination against women. She was known as "the housewife who liberated all housewives. She wrote a book called *The Feminine Mystique*, which caused a huge social response when it was published. This book puts forward many progressive and correct concepts about female independence.

So what can we do to help promoting gender equality development? There are many ways for us to effect, from early childhood education, resource distribution, breaking inflexible impression, increase scope of publicity and so on.

In the early childhood enlightenment period, children begins to have a sense of gender. So it's particularly important for children to give them correct guidance and education. We can't just train boys' character to be courageous, bold and lively. Similarly, girls' character should not just be quiet, gentle and careful. It's wrong to put a boy and a girl in a mold. What we need more in community is a combination of these two distinct personalities, not only brave but also careful, not only bold but also quiet. Parents should cultivate their children diverse personalities. On the other hand, parents should educate their children to respect women, respect men, put an end to gender discrimination.

In teams of resource distribution, we should reasonably distributed during urban and rural education resources. We should not let the rural education resources lack lead to backward thinking, or gender inequality in rural areas will worsen. This is bad for achieving gender equality.

People can bravely break inflexible impression, encouraging people to experiment with new gender roles, such as encouraging men to be involved in caring for the home and children, and women to take on more decision-making jobs, such as policeman, scientists.

It's very necessary to increase scope of publicity. Not only children, teenagers, middle-aged people but also old people all should learn gender equality.

Women stand up doesn't mean men fall down. The world is big enough for men and women to be strong together, walk side by side, and help each other. When we tear down the stereotypical labels attached to gender, we will have a world of gender equality!

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Enhancing Human Well-being Requires the Collective Participation of All Humanity

QIN Jiahui

Since entering the industrial era, science and technology have made tremendous progress, and society has also achieved rapid development. People's living standards have also been unprecedentedly improved, and transportation, medical care, trade and other aspects have become more convenient. As a result, the connections between individuals, countries, and humans and nature have become even closer, and the prophecy of a “global village” has become a reality. In order to maintain people's growing demand for high-quality living, a large amount of natural resources have to be consumed. Furthermore, in the process of utilizing natural resources for production and daily needs, it is also inevitable to produce some waste such as wastewater and exhaust gas. The arrival of the industrial age has not only benefited humanity, but also harmed humanity itself.

1. Existing problems

1.1 Environmental pollution

Environmental pollution refers to the harmful behavior caused by natural or human destruction, adding certain substances to the environment beyond its self-purification capacity. Wastewater, smoke, slag, and noise emitted from factory production; Garbage generated in people's daily lives; The exhaust gas and noise emitted by the transportation vehicles used for travel; The wastewater discharged from farmland irrigation, which heavily uses chemical substances such as fertilizers, insecticides, and herbicides, has to some extent become a source of pollution that affects air quality and environmental quality. According to data statistics, the top ten global environmental problems - acid rain pollution, greenhouse effect, destruction of the ozone layer, desertification of land, reduction of forest area, biodiversity reduction caused by species extinction, water resource crisis, soil erosion, urban air pollution, and marine pollution - all indicate that while enjoying civilization, humanity also faces enormous challenges. And these challenges have actually posed a certain threat to

humanity. Environmental problems no longer have national borders or geographical boundaries, and the consequences of environmental pollution will be shared by all humanity.

1.2 Weak awareness of environmental protection

With the acceleration of the pace of life and the arrival of the networked era, people have become more immersed in the fast-paced life. Smartphones, robotic vacuum cleaners, smart homes, virtual spaces, and other digitally empowered production and living environments are constantly liberating people's hands, giving them more time and resources. Enjoying life with energy allows people to achieve all their life needs without leaving their homes. The visualization of personal life allows people to glimpse different lifestyles, broaden their horizons, and pay more attention to their current life experiences, thus giving rise to a timely and enjoyable mentality. The phenomenon of littering everywhere still exists, and garbage classification has not been truly implemented; People, in pursuit of convenience, have not restrained the use of non-degradable items such as plastics; the phenomenon of extravagance and waste still exists. Ultimately, it is a lack of long-term awareness and environmental protection awareness.

2. Response strategies

2.1 Strengthen ecological civilization education

Ecological civilization is a new stage of human development, and the construction of ecological civilization is imperative. Among them, ecological civilization education is of great significance in promoting ecological civilization construction. This kind of education should run through various places such as schools, workplaces, and public areas. Advocate people to cherish their homes, integrate ecological civilization education into the ideological and political education curriculum system of universities, integrate corporate culture promotion, and cultivate public civilization thinking. To create a more positive and environmentally friendly social atmosphere throughout society. Give appropriate praise to outstanding individuals, while criticizing individuals who do not regulate their behavior, to form a holistic awareness of environmental protection in the whole society, continuously construct a holistic environment that takes pride in environmental protection, and promote sustainable development.

2.2 Individuals should consciously establish awareness of environmental protection

Everyone should have a sense of “protecting the environment, starting from me”. Promote green travel, choose public transportation as much as possible, and consciously reduce carbon emissions; consciously use environmentally friendly products, such as eco-friendly shopping bags, non-disposable chopsticks, and reduce the use of disposable water cups. Instead, use reusable products such as insulated cups or glass cups; Recycling of domestic water; Order meals as appropriate, and so on. Diligence, frugality, and frugality are traditional virtues of the Chinese nation, as well as positive virtues worthy of promotion by all humanity. Starting from an individual, we will inspire those around us to work together, and then all humanity will take action together to build a better life and work together to build a community with a shared future for mankind.

3. Summary

The development of society is inevitable, and in today's close relationship between people and society, protecting the social environment is actually protecting humanity itself. It is imperative to seek development while protecting the environment, and to achieve modernization of harmonious coexistence between humans and nature while protecting the environment. The construction of ecological civilization is related to the well-being of the people and the future of humanity. The new era should be a new era of harmonious development, a new era of sustainable and healthy progress.

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Guess and Practice of Sustainable Development Education Based on the Principles of the Earth Charter

ZHU Zhixuan

Abstract

As one of the important industrial bases in China, the Liaoning region faces challenges such as resource depletion and environmental degradation. Sustainable development education can help students understand the concept, principles, and practices of sustainable development, cultivate talents with sustainable development concepts, and provide support for the sustainable development of the Liaoning region. As the reserve talents of the new era, the education of college students in Liaoning is of utmost importance. How the values of sustainable development are applied in the practice of colleges and universities in China, and what role the Earth Charter plays, can be guessed and designed through the practice of colleges and universities. Taking Liaoning University as an example, this article explains the rationality of designing sustainable development education based on the principles of the Earth Charter in Northeast China.

Keywords

the Earth Charter; sustainable development education; Liaoning University

1. Introduction

The Earth Charter is a United Nations initiative aimed at promoting global sustainable development and is recognized as an important ethical framework for sustainable development by UNESCO. In November 2022, the 22nd anniversary of the Earth Charter Sustainable Development Education Conference, Liaoning University, as the only invited Chinese university, attended. It can be seen that sustainable development education based on the Earth Charter is on the positive path of progress in China, especially at Liaoning University. As early as 2013, Wang Shun and Fang Wenhong's "Research on the Values of Sustainable Development Education Based on the Earth Charter" proposed the rationality

of sustainable development education through a study of documents such as the “Ten-Year International Implementation Plan for Sustainable Development Education” and the Earth Charter. The article points out that “in December 2005, the United Nations General Assembly adopted Resolution 254, designating 2005-2014 as ‘the Decade of Education for Sustainable Development’”. Now, in 2024, ten years have passed since the target of sustainable development education was set in 2014. In December 2022, Professor Ma Shuang spoke at the 22nd anniversary Earth Charter Sustainable Development Education Conference, connecting the future educational goals of Liaoning University with the 17 UN Sustainable Development Goals.

The northeast region, especially Liaoning, is China’s heavy industry base and faces the challenges of resource depletion and environmental degradation. It is imperative to implement sustainable development education for students. Only when the next generation’s consciousness is improved can urban industrial transformation reduce resistance and people’s lives can better develop. Sustainable development education emphasizes cross-disciplinary and cross-field knowledge integration, focusing on cultivating students’ innovation and critical thinking. It not only pays attention to balancing economic development and environmental protection, but also emphasizes social justice and the values of a culture of peace. Earth Charter-related education is one of the important paths to cultivate students' global literacy. Its goal is to cultivate citizens with a global perspective and environmental awareness, promoting harmonious symbiosis between humans and the natural environment through education and knowledge dissemination.

As global environmental issues become increasingly severe, sustainable development has become a common goal for all countries. In order to cultivate environmental awareness and sustainable lifestyles among students in the northeast region, we propose the “Earth Charter Sustainable Education” program. The program aims to improve college students’ understanding and participation in sustainable development through educational activities, promoting sustainable development in society.

2. Implementation measures of Earth Charter Sustainable Development education in colleges and universities

In order to achieve the goal of Earth Charter sustainable development education, a series of measures need to be taken. Firstly, it is necessary to strengthen education and

training to raise public awareness and understanding of sustainable development. Secondly, it is necessary to promote practice and innovation, and encourage people to adopt sustainable ways of living and working. Additionally, it is also necessary to strengthen international cooperation and communication to jointly address global environmental issues.

- 1) Environmental knowledge training: Organize students to participate in environmental knowledge training to understand global environmental issues, sustainable development concepts, and practical cases.
- 2) Promote green office practices: Promote energy-saving and emission-reducing office practices, such as double-sided printing, the use of energy-saving lamps, waste sorting, etc.
- 3) Advocate green travel: Encourage students to adopt low-carbon travel methods on campus, such as cycling, electric vehicles, scooters, etc., and reduce private vehicle travel.
- 4) Environmental public activities: Guided by teachers, organize students to participate in environmental public activities such as tree planting, waste sorting, etc., to enhance students' sense of social responsibility.
- 5) Green supply chain construction: Promote the university's logistic department to contact suppliers to adopt environmentally friendly materials and production methods to jointly achieve the goal of a green supply chain.
- 6) Through Earth Charter sustainable development education, we can cultivate generation after generation of students with a global perspective and environmental awareness, and build a better future together.

3. Implementation steps of education for Sustainable Development

The implementation steps of sustainable development education include:

- 1) Developing an implementation plan: Based on the actual situation and student needs of the university area, develop a specific implementation plan and timeline, such as regularly organizing sustainable activities, establishing scholarships to mobilize student enthusiasm, etc.
- 2) Publicity and promotion: Promote the importance and content of the Earth Charter sustainable education program through channels such as university internal noticeboards, WeChat official accounts, etc.

- 3) Training and implementation: Organize students to participate in training activities, and implement the measures according to the requirements of the implementation plan.
- 4) Monitoring and evaluation: Regularly monitor and evaluate the implementation of the program, identify problems in a timely manner, and take improvement measures.
- 5) Summary and improvement: During the implementation of the program, summarize experiences and lessons learned, continuously improve and refine the implementation plan, and enhance the sustainability and effectiveness of the program.

The Earth Charter sustainable development education program aims to promote global sustainable development, enhance people's awareness and conservation of the Earth's ecosystem, and cultivate citizens with a global perspective and a sense of responsibility.

Action can be taken in several areas:

- 1) Curriculum design: Establish Earth Charter sustainable development courses in primary and secondary schools and higher education institutions, covering topics such as climate change, environmental protection, resource utilization, and sustainable urban development. These courses should emphasize interdisciplinary knowledge and skills, including science, geography, history, politics, economics, etc.
- 2) Practical activities: Organize students to participate in Earth Charter sustainable development projects, such as environmental volunteer activities, green campus construction, community sustainable development projects, etc. These activities can improve students' practical abilities and social responsibility.
- 3) Campus culture: Promote the Earth Charter sustainable development concept and create a green campus culture. For example, promote energy-saving and environmentally friendly lifestyles, encourage teachers and students to participate in environmental public activities, and showcase outstanding achievements in sustainable development.
- 4) Cooperation and communication: Strengthen international cooperation and communication, share experiences and achievements in Earth Charter sustainable development education among countries. Organize teachers and students to participate in international exchange activities to learn from advanced educational concepts and teaching methods.

- 5) Innovation and technology: Encourage the application of innovation and technology in Earth Charter sustainable development education. For example, use technological means to carry out environmental monitoring, data analysis, simulation experiments, etc., to improve the effectiveness and quality of education and teaching.

In a word, the Earth Charter sustainable development education program should focus on the combination of knowledge and practice, cultivating students' global perspective and sense of responsibility. At the same time, the government, schools, and all sectors of society need to work together to promote the implementation and development of Earth Charter sustainable development education.

4. Expected outcomes and impacts

Through the implementation of the "Earth Charter Sustainable Education" program, the following expected outcomes and impacts are expected:

- 1) Increase global citizenship awareness: Through Earth Charter sustainable development education, students will be equipped with a global perspective and a sense of citizenship, focusing on the ecological environment and sustainable development of the Earth. This education can help students recognize the interdependence of humans and the Earth, realizing the impact of their actions on the planet and future generations, and actively participate in the protection of the Earth.
- 2) Foster sustainable development talents: Sustainable development education can provide students with relevant knowledge and skills, helping them understand the concepts, principles, and practices of sustainable development. These knowledge and skills can be applied in daily life, study, and work, helping students become talents with a sustainable development mindset in the future.
- 3) Promote environmental protection and sustainable development: By educating students on environmental protection, resource conservation, ecological improvement, etc., it can promote environmental protection and sustainable development. Students can become active environmental activists, participating in various environmental activities and projects, making contributions to sustainable development.

- 4) Foster international cooperation and communication: Earth Charter sustainable development education can foster international cooperation and communication, strengthening mutual understanding and friendship among countries. By jointly focusing on the ecological environment and sustainable development of the Earth, countries can share experiences and achievements, and jointly address global challenges.
- 5) Guide all sectors of society to focus on sustainable development: Earth Charter sustainable development education not only affects students but also guides all sectors of society to focus on sustainable development. Schools can spread the concept and practice of sustainable development to society through public courses, lectures, exhibitions, etc., raising the awareness of sustainable development throughout society.

The Earth Charter sustainable development education is an educational philosophy that focuses on the ecological environment and sustainable development of the Earth. It aims to cultivate citizens with a global perspective and a sense of responsibility. Through the implementation of curriculum design, practical activities, campus culture, cooperation and communication, innovation and technology, etc., it can improve students' environmental awareness and sustainable development capabilities. The expected outcomes and impacts of the Earth Charter sustainable development education are positive and far-reaching. It can cultivate citizens with a global perspective and a sense of responsibility, making contributions to a sustainable future. At the same time, through international cooperation and communication, it can promote mutual understanding and friendship among countries, jointly addressing global challenges.

When implementing the Earth Charter sustainable development education, it is necessary to focus on the combination of knowledge and practice, cultivating students' global perspective and sense of responsibility. At the same time, governments, schools, and all sectors of society need to work together to promote the implementation and development of Earth Charter sustainable development education.

In conclusion, the Earth Charter sustainable development education is an important educational philosophy that has significant implications for cultivating citizens with a global perspective and a sense of responsibility, promoting environmental protection and sustainable development, and facilitating international cooperation and communication. We

should actively promote this concept to contribute to the ecological environment and future development of the Earth.

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Ideology Obstacles to Promoting Gender Equality in Digital Economy

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Abstract

Despite the many opportunities and developments brought by the digital economy, women still face the challenges of gender inequality. In addition to the historical and practical factors, in the era of the digital economy, ideology is an important factor influencing the global push for gender equality. This paper analyzes the shortcomings of the values and education systems that women have embraced in the digital economy, and proposes new ways to promote gender equality around the world.

Keywords

digital economy; gender equality; gender stereotypes

1. Gender stereotypes

Values education often defines women as gentle, weak, and dependent, emphasizing that women should play family roles, and limiting women's development space. This stereotype can limit women's opportunities for career advancement in all areas of career, education and society.

According to the history textbooks commonly used in China, there are only 12 women and 490 men, especially the Chinese history book "Twenty-four History" is a history of men's activities and has no status of women.^[1]

This traditional gender stereotype of male superiority and inferiority of women has been inherited and accepted in thousands of years of historical development, sowing the fire of gender stereotypes in human society and having a great impact on the gender ideology of future generations. Even in today's modern society with the rapid development of science and technology, it still has a certain influence.

At this stage, digital technologies, goods and services are not only accelerating the penetration of traditional industries in multiple directions, at multiple levels and in multiple

chains, but also promoting the continuous development and growth of digital industry chains and industrial clusters such as Internet data center construction and services. Influenced by stereotypes, many women do not see themselves as capable of leading in the digital economy.

2. Role expectation limitations

Values education often limits women's roles to those in the family and childcare, emphasizing that women should pursue marriage and motherhood, and is skeptical of women's career pursuits. This role expectation restricts women's right to pursue their dreams and personal development. The development of the digital economy will have a significant impact on individual time allocation and family division of labor, and then on gender equality within the family.

According to *The 2020 Survey Report on the Status of Women's Workplaces in China* released by Zhaopin.com, women currently account for a larger proportion of functional positions, mainly engaged in customer, finance and service-related businesses, while men show advantages in technical positions such as production and processing. With the rapid development of digital information technologies, traditional occupations will be adjusted and innovated, and it is foreseeable that the existing repetitive, routine, and standardized jobs will be replaced, and most of these jobs will be taken over by women, thus impacting women's traditional employment. ^[2]

Not only in East Asia, but globally, it is clear that when the digital economy swept the world and replaced some traditional industries, the role of women changed even more: more and more women were forced to abandon their careers in favor of marriage and motherhood.

3. Excessive emphasis on appearance

Values education usually emphasizes the importance of women's appearance and body image, and puts forward requirements for women's aesthetic standards. This excessive emphasis on appearance can have a negative impact on women's self-esteem and body image, leading them to pursue a perfect appearance, feel uneasy, and feel unconfident. Appearance evaluation has a more direct impact on self-objectification, and the influence of selfies on social networking sites on women's self-objectification must be realized through the mediating role of appearance evaluation.

The internet platform provided by the digital economy forces women to accept the

concept of “appearance is above everything”, which is essentially a kind of gender inequality, objectifying women’s appearance, and gradually and fundamentally accepting gender inequality through the distortion of women’s values.

Fredrickson and Roberts (1997) proposed the theory of sexual objectification, which explains that in Western social and cultural environments, women's bodies are observed, evaluated, and sexually objectified through various channels such as media and social interaction. Women who are objectified by sexuality are often treated as objects by others for a long time, leading to self-objectification (for example, internalizing the perspective of a third party to objectify their own body). They begin to value the physical features of their bodies rather than their ability attributes (Stice et al, 2013), and exhibit habitual and persistent monitoring of their bodies (Hunsley & Meyer, 2003).^[3]

To address these issues, we need to promote inclusive and equitable education, foster women’s autonomy and talents, and break down gender stereotypes. Education should encourage women to pursue their dreams, provide comprehensive sexuality education, value women’s rights, and build fair and inclusive social systems. Addressing gender inequality in the digital economy is an enduring challenge for the global community. Here are some possible solutions.

4. Equal access to education

Ensure that both women and men have access to good quality education, including in technology, computer science, and digital skills. This will help break down gender barriers in the tech industry and promote equal opportunities. Provide universal access to digital technology infrastructure, including high-speed internet connectivity and computing devices in schools and communities. This will ensure that women have access to quality online educational resources and learning opportunities. Dedicated training and support in the digital economy. Specialized training for female teachers and educators to enhance their teaching capacity and professional development. In addition, support networks and mentorship programs are established to help female education practitioners overcome challenges and achieve career success.

Policies and laws can also be developed and enforced, and governments and educational institutions should develop and enforce policies and laws on gender equality to protect the rights and interests of female students and educators. This includes combating

gender-based violence, discrimination and harassment in schools and ensuring a safe and inclusive environment for women in educational institutions.

5. Gender-diverse engagement

Encourage and support women's engagement in technology and the digital economy, including in management and leadership positions. This can be achieved by creating incentives, providing training, and mentorship programs. The world needs women's power, and the development of the world's digital economy is inseparable from female leaders. The channels for female entrepreneurs to express themselves in digital media are more diverse and the space is broader. The personal image and growth story of female entrepreneurs in the traditional media environment can only be disseminated through being interviewed in newspapers, radio, and television. Nowadays, female digital entrepreneurs can express their own ideas and share entrepreneurial stories through self-media^[4]

6. Societal attitudes and stereotypes

Promote gender-friendly culture and values, and reduce stereotypes and prejudices against women in the tech industry and the digital economy. This can be achieved by promoting stories and achievements, promoting positive role models, and systems and policies that eliminate gender discrimination. Widely publicize the importance and value of gender equality through digital media platforms and social media, and promote awareness and concern about gender discrimination in all sectors of society.

The digital economy provides more opportunities and platforms, and gender equality in the workplace and entrepreneurial environment should be ensured. By formulating and implementing policies to ensure that women have fair opportunities to compete and thrive in the digital economy.

Use digital technology and data analysis tools to track the occurrence and change of gender discrimination and provide a scientific basis for policy formulation and measure evaluation.

Provide opportunities for help and mutual support for people who have been discriminated against on the basis of gender equality by building digital platforms and communities that provide information, resources and support related to gender equality.

Through the popularization and promotion of digital technology, encourage and

cultivate more women to participate in scientific and technological innovation and business management, and improve women's leadership and influence.

In conclusion, in the era of the digital economy, we can use digital technology and innovation to promote the elimination of gender discrimination and achieve the goal of gender equality through education, advocacy, policy and support networks.

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Sustainable Development in the Earth Charter

OUYANG Shuqin

The development of industry and science and technology has raised people's living standards and promoted economic development, but at the same time it has caused the destruction of ecological environment. With the development of society, people are more and more aware of the importance of ecological environment. People began to seek a balance between economic development and ecological environment, and hope to find a way. And this has led to the idea of sustainable development. The first proponent of sustainable development was Lester Brown, director of the World watch Institute in the United States. As a new development idea and strategy, sustainable development first appeared in the 1970s. This concept began to be formally recognized in the 1987 report of the United Nations World Commission on Environment and Development, Our Common Future.

“Sustainable development” means meeting the needs of modern people without compromising the ability of future generations to meet their needs. That is, the coordinated development of economic, social, resource and environmental protection, which is an inseparable system, not only to achieve the purpose of economic development, it is also necessary to properly protect natural resources and the environment, such as the atmosphere, fresh water, oceans, land and forests, on which mankind depends for survival, so that future generations can enjoy sustainable development and live and work in peace and contentment. “Sustainable development” has profound connotations and rich contents, but its most basic points are those. First, the right of human beings to pursue a healthy and productive life should be in harmony with nature, rather than relying on people's technology and investment. To pursue the realization of this right to development by depleting resources, destroying ecology and polluting the environment. Second, the creation of the present generation and the pursuit of development and consumption in the present generation should recognize and strive to equalize their own opportunities with those of future generations. The present generation should not be allowed to blindly, unilaterally and selfishly pursue the development and consumption of the present generation, while mercilessly depriving future generations of the same opportunities for development and consumption that they should reasonably enjoy.

Sustainable development is also mentioned in the Earth Charter. From the design of the curriculum, sustainable development occupies a large space in the Earth Charter, which also shows the importance of sustainable development in ecological environment protection. In this course, the teacher gave us a detailed introduction to sustainable development and shared some search results for sustainable development. After systematic study, I realized that sustainable development can not only protect the ecological environment, but also enable the ecological environment to develop in a good cycle.

The ultimate goal of sustainable development is to deal with population, resource, environmental and development issues and ensure that all countries, regions and individuals in the world have equal opportunities for development. To ensure that future generations have the same conditions and opportunities for development. To achieve harmony between man and nature. The content of sustainable development theory includes natural and human fields, involving natural resources, natural environment, natural ecology, human resources, human environment and human ecology and other issues. The implementation of the sustainable development strategy is conducive to promoting the unity of ecological, economic and social benefits, and promoting the transformation of the economic growth pattern from extensive to collective. We will coordinate economic development with population, resources and the environment and improve people's living standards and quality.

The concept of sustainable development has a natural attribute, which indicates that sustainable development should protect and strengthen the production and renewal capacity of the environmental system, and not exceed the development of the renewable capacity of the environmental system. As we all know, the ecological environment has the ability to adjust itself. Even if the ecological environment is damaged to a certain extent, the ecological environment can be restored as long as the bearing value does not exceed the self-regulating capacity of the ecological environment. The concept of sustainable development emphasizes ecological sustainability, never exceeding the bearing value of ecological environment. It maintains the stability of ecological environment through the self-regulation ability of ecological environment, so as to realize the purpose of protecting ecological environment.

Now all countries have realized the importance of ecological environment and the role of sustainable development concept in ecological environment protection. Many countries are guided by the concept of sustainable development to protect environment. To date,

Finland has achieved three sustainable development goals: “poverty eradication”, “quality education” and “affordable and clean energy”. It is also on track to achieve “decent work and economic growth”. Denmark has achieved three sustainable development goals: “poverty eradication”, “affordable and clean energy” and “reducing inequality”. It is steadily achieving “gender equality”, “clean water and sanitation”, “industry, innovation and infrastructure”, “life on the land” and “partnerships to achieve goals”. Sweden has achieved the goals of “poverty free”, “gender equality” and “affordable and clean energy”. It is achieving “clean water and sanitation”, “decent jobs and economic growth”, “peace, justice and strong institutions” and “partnerships to achieve these goals”. Norway has achieved “poverty eradication”, “gender equality”, “affordable and clean energy”, “reducing inequality” and “partnerships to achieve goals”. It is achieving “sustainable cities and communities” and “peace, justice and strong institutions”. We can believe that in the future, with the sustainable development goals to continue to achieve, the ecological environment will be better and better, environmental protection will enter a new era.

In recent decades, China’s economy and science and technology have developed rapidly, but this has brought environmental damage. With the increase of productivity, people’s need for a better life is increasing day by day. People pay more and more attention to the protection of ecological environment. General Secretary Xi Jinping’s proposal that “green water and green mountains are golden mountains and silver mountains” shows the Chinese people’s determination to protect the environment. In September 1995, the Fifth Plenary Session of the 14th CPC Central Committee formally included the sustainable development strategy in the Proposal of the CPC Central Committee on Formulating the Ninth Five-Year Plan for National Economic and Social Development and the Long-Range Goals for 2010. It is pointed out that the overall development of society must be placed in an important strategic position to realize the coordinated and sustainable development of the economy and society. China has taken concrete actions to implement the concept of sustainable development and contributed an important part to global ecological and environmental protection.

Since the 1980s, the situation of global resources, energy consumption and environmental destruction has become more and more serious. How to realize the sustainable development of human economy and society has attracted the attention of the whole world. The 1992 World Conference on Environment and Development took

“sustainable development” as its guiding principle, formulated and adopted such important documents as Agenda 21 for Action and the Rio Declaration. The strategy of sustainable development was formally put forward. Today, the concept of sustainable development is getting better and better, and the United Nations has put forward 17 sustainable development goals. This will greatly help countries to balance economic development with ecological protection. The Earth Charter increased the visibility of the 17 United Nations Sustainable Development Goals and increased awareness and active participation in the concept of sustainable development. It can be predicted that in the future, the sustainable development goals will play a more and more important role in ecological environment protection, and the ecological environment will become better and better.

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