



The Learner-centered Glocalization and Evidence-based Educational Decision-making on Glocalization: Two Issues on the Global Development of Chinese Language Teaching

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Abstract: In the twentieth century, Chinese teachers and researchers in China primarily viewed Chinese language teaching as teaching the language to foreigners, specifically those learning Chinese within China. In the twenty-first century, with the rapid increase in the number of global Chinese language learners, Chinese teachers and researchers have begun to focus on global Chinese language learners, and to support and meet the needs of them. There are two critical issues in the global development of Chinese Language Teaching (CLT): the learner-centered glocalization and the evidence-based educational decision-making on how to glocalize. Learner-centered glocalization reflects the humanism of caring about learners all over the world, and educational decisions on how to glocalize need to be based on scientific evidence to improve the effectiveness and efficiency of teaching and education. In terms of the current state of the field, there is a growing consensus of common sense on the glocalization of Chinese language teaching materials and paradigm, and the training and education of local teachers, but the scientific educational decision-making based on evidence such as findings from neuroscience is more difficult to achieve, rarely even discussed. However, the latter is the key to scientific glocalization of this area in the future.

Keywords: teaching Chinese to foreigners, teaching Chinese as a foreign language, glocalization, evidence-based decision-making

1. Introduction

In the 20th century, Chinese teachers and researchers in Chinese language teaching focused mainly on Chinese language learners in China. By the 21st century, with the increase in the number of global Chinese language learners, the number of overseas learners has far exceeded the size of about 500,000 (The Ministry of Education of the People's Republic of China (2019): http://www.moe.gov.cn/jyb_xwfb/gzdt_gzdt/s5987/201904/t20190412_377692.html, 2024-06-03) international students in China each year. Chinese teachers and researchers in the area of Chinese language teaching needs to face the needs of global Chinese learners.

Even the academic goals of international students coming to China have changed. A considerable number of them are no longer only interested in Chinese language learning, but have longer-term academic goals and career plans. Chinese language teaching and education needs to meet the different levels of needs of Chinese language learners around the world.

The question is how to meet so different levels of learning needs of Chinese language learners worldwide. There are two critical issues: learner-centered glocalization and the scientific educational decision-making during glocalization.

The introduction of these two dimensions are inspired by the two Chinese concepts that are the results of glocalization, *renwenzhuyi* and *kexuezhuyi*. They are usually considered to correspond to humanism and scientism in English, respectively. However, comparing the relevant literature in Chinese and English, humanism and scientism often co-occur in the titles of Chinese literature, while humanism and scientism seldom appear together in the titles of English literature. Therefore, there are subtle differences in the context, meaning and usage of these two words in Chinese and English.

According to English literature, the term humanism has a long history in Western philosophical language, and what it represents has varied to some extent at different stages of social and philosophical development. Although its kernel has always been to emphasize concern for human beings as individuals and respect for and recognition of human nature and human values, it represents secularism in relation to religious thought, and human nature in relation to scientism (scientism-only), which overemphasizes the scientific methods.

The word scientism in the language of Western philosophy usually carries a negative connotation; the word usually carries a critical attitude; to use the word is not to agree with it, but to criticize it. Both the scientific disciplines and the humanities and social disciplines are warier of it. Those who use it usually want to express the idea that the scientific methods has limitations, that the system of rules of science cannot deal with human values, human subjectivity, complexity,

specificity, and individual differences, and that therefore one cannot overemphasize the scientific side of a discipline[1,2].

In the Western philosophical discourse system, the historical and cultural accumulation of humanism and scientism constitutes and constrains the real context in which these two words are used. Humanism and scientism do not usually appear together in the same context. When people criticize scientism, they more often use humanistic or humanist, or phrases containing these words, to express the kind of value orientation that is more concerned with individual human beings, more desirable, more ideal in development and research. Thus, in the language of Western philosophy, humanism and scientism are seldom used to denote the two ends of a continuum of principles or values in philosophy, other academic areas and education.

The Chinese philosophical discourse system has been established in conjunction with the introduction of foreign knowledge systems. In the relevant literature in Chinese language, in the 1980s, humanism and scientism began to co-occur in the titles[3,4], showing the basic stance and principled viewpoints of the Chinese philosophical community in the study of Western philosophy, and reflecting the Chinese philosophers' own understanding and grasping of these two concepts.[5-7] The core meaning of these two concepts is similar to that of English, but humanism is weakened in relation to religion, while the use of scientism represents a positive attitude. Thus, in the context of Chinese philosophy, humanism represents the value of an individual as a human being, his spirit, his subjectivity and initiative. Scientism, on the other hand, represents man's recognition of his own limitations, his breaking through the limits of his own understanding, his freedom from subjectivity, and his ability to look at himself from an external perspective.

In Chinese discourse system, humanism and scientism are two indispensable forces in the development of human knowledge and culture, and it has been judged that there is a tendency for them to merge in the present and the future. In the context of a specific academic area and disciplinary knowledge education, humanism is the respect for the value of human beings as human beings, while scientism is the breakthrough of the limitations of human beings as human beings[8]. Discipline development without humanism will largely ignore the value of human beings, while the development of a discipline without scientism will not be able to break through the limitations of human beings to achieve maximum objectivity.

Interestingly, searching humanism and scientism in the English literatures, the first result often is *Scientism and Humanism: Two Cultures in Post-Mao China (1978-1989)* [7], written in English by a Chinese scholar, which represented the theoretical developments in China at that time. Although there are authors in other languages occasionally using the two words together in the titles of their English papers, they are few in number[9].

So, in Chinese discourse system, scientism and humanism are both important in academic research and education. We need scientific methods as an access to new knowledge, and we also need humanistic care to emphasize the value of human beings, to emphasize respect and care for the individual during the application of scientific methods. So, how to keep balance between them should concern every researcher and educator.

Li[10] claims that humanism and scientism are the two major categories of culture and knowledge created by human beings, both of which reflect the nature and values of human beings, representing the most essential characteristics of human beings and their transcendence of themselves. The value of humanism in scientific research, and the value of scientism in humanistic research, cannot be ignored. The ideas of multi-disciplinarity, inter-disciplinarity and trans-disciplinarity break the boundaries of different academic fields and reflect the importance of humanism in science and scientism in humanities and social science. He is very optimistic about the balance of the two in research, education and science.

As mentioned earlier, the use of humanism and scientism in the Chinese context is different from that of humanism and scientism in English. Chinese scholars are usually less critical and more concerned with the balance of the two and exploring ways, methods, or ideas for their balance[11,12]. Psychology, which studies the human mind and brain and employs scientific empirical research methods, and has been thoroughly transformed from philosophy to science, is particularly representative of the balance of humanism and scientism[8,13,14]. Li elaborates on the present and future development of cognitive science, or psychology[15]. He points out that the exploration made by cognitive science should be able to represent the highest extent of the balance and the integration of humanism and scientism in the development of the discipline. Currently, cognitive science has developed into the second generation. The first generation of cognitive science research severed the human body from the mind, limiting itself. The second cognitive revolution, however, will break through this limitation by emphasizing the oneness of body and mind and the role of the environment and its constraints and influences on the system. Li suggests that the second revolution in cognitive science has the potential to provide a platform for the co-development and mutual integration of humanism and scientism in psychology[15].

Also, the area of education is of greatest interest to this discussion[16-20]. In the field of education, humanism can be understood as a learner-centered educational philosophy, and scientism can be understood as an emphasis on the scientific nature of educational decision-making. Both are driving forces and directions for the development of education.

Back to the specific area of Chinese language teaching and education, the discussions of humanism and scientism

inspire us to study the development of Chinese language teaching around the world. The concerns about humanism require Chinese language teaching to realize the learner-centered glocalization of teachers, teaching methods and materials to satisfy the needs of global learners. The concerns about scientism require the glocalization should be scientific, i.e. the educational decision-making of glocalization should be evidence-based. That means it must rely on scientific findings to get the solution and improve the quality, effectiveness and efficiency of teaching and education. As early as 2003, some Chinese educators[21] pointed out that Chinese language teaching in China should be oriented to global learners, not just foreign learners coming to China. The professional knowledge and skills of Chinese language teaching, which should be based on global Chinese language learners, is undergoing unprecedented advances in all aspects, from the systematic design of the whole field[22], to professional cultivation[23], to the research paradigm[24], and to the teaching methodology and educational models[25,26]. Humanism and scientism in this area mean scientific glocalization and these is the main path of the development of professional knowledge in the area of China's Chinese language teaching.

2. Glocalization of Chinese language teaching in the world

In the area of second language teaching and education, including Chinese language teaching, balancing humanism and scientism is crucial, emphasizing scientific, learner-centered glocalization. Both learners and teachers, as primary participants in second language education, are unique individuals requiring humanistic care.

The content of teaching is language, a unique human trait. Deciding what to teach in a second language class is complex. Many linguistic phenomena and proficiencies remain beyond the scope of existing theories and explanations. An evidence-based paradigm is essential for effective teaching and learning, particularly in classroom settings.

Teaching and learning knowledge are mental processes internalized by each individual. Language acquisition is both an evolved instinct and a necessity that requires instruction. Linguistic knowledge is simultaneously teachable and unteachable: it is genetically encoded, a product of human evolution, and must be taught. The process involves a degree of subjectivity and arbitrariness, necessitating glocalized second language teaching to support diverse learners from different linguistic and cultural backgrounds.

Therefore, second language education, involving both language and human elements, requires a perfect balance of humanism and scientism.

2.1 Glocalization of Chinese Language Teaching and Education

The global development of Chinese language teaching and education implies the glocalization of Chinese language teaching and education. Zhao (2014) notes that the internationalization of Chinese language education inherently involves glocalization. The purpose of "glocalization" is to prioritize learners, adapting to their learning needs and reflecting humanistic features in Chinese language teaching's development. Glocalization aims to support Chinese language teaching globally, enabling learners to master Chinese in their own countries[27].

Two significant factors in global Chinese language teaching are the varying Chinese language learning needs across countries and the education of international students in China. Glocalization has become a prominent research topic in this field. The two most crucial aspects of glocalization are the adaptation of teaching materials and the training of local Chinese language teachers.

There are two approaches to glocalizing teaching materials. The first is to incorporate the learners' mother tongue or first language into the existing teaching materials. A more comprehensive approach is developing teaching materials tailored specifically for local learners[28-30].

Glocalizing Chinese language teachers involves training educators for local Chinese language programs. This can be done in two ways: firstly, by enhancing the teaching skills of existing local teachers; and secondly, by training more teachers within the local area.

Developing local teaching materials suitable for local learners, organizing local teachers for various Chinese language teaching training programs, and pursuing international students in bachelor's, master's, and doctoral degrees in Chinese language education all require support from Chinese language teaching professionals in China.

Moreover, teacher glocalization also involves Chinese teachers adapting their teaching methods when teaching abroad. Just as foreign learners in China need to integrate into the Chinese education system, Chinese teachers abroad must integrate into local education systems and adjust their teaching philosophies and methods accordingly. [28,31]

2.2 Comparison with the Glocalization of English Language Teaching

Similar to Chinese language teaching, the glocalization of English language teaching emphasizes adapting teaching practices to meet local needs. English language teaching has long been subject to local adaptations, focusing on contextualizing

content to be culturally relevant and accessible to learners from various backgrounds. This approach includes developing localized teaching materials and training local educators to incorporate culturally sensitive teaching methodologies.

Both Chinese and English language teaching share the goal of making language education accessible and effective for learners worldwide. However, English language teaching often benefits from a longer history of global dissemination and a more extensive body of localized teaching practices and materials[32].

Determining how to glocalize education is an educational decision that cannot rely solely on professional advice, experience, and judgment. Evidence-based educational decision-making ensures that solutions are supported by scientific findings, and their effectiveness and efficiency in education must be tested and verified through empirical research. This approach helps in making informed decisions that are more likely to yield positive educational outcomes.

3. The scientific decision-making during glocalization of Chinese language teaching

Scientific decision-making entails basing decisions on scientific evidence, which includes research findings and empirical data. Evidence-based educational decision-making, also known as evidence-based education, integrates practitioners' professional knowledge and academic experience with the most reliable scientific evidence available. However, it is crucial not only to identify scientific evidence but also to validate its application within the specific context of teaching and learning.

While it can be argued that the glocalization of Chinese language teaching has been largely successful, the degree of its scientific rigor and effectiveness remains a significant question that requires further exploration.

Second language teaching researches mainly draws on the research paradigms of other disciplines such as linguistics, psychology, and neuroscience. As an independent discipline, Chinese language teaching and education has not been able to establish its own research paradigm and put forward its own theories and models of teaching based on the characteristics of the language[33].

Nonetheless, with the development of disciplines such as neuroscience, the direction of scientific development of Chinese language teaching and education is becoming clearer. Educational neuroscience, nowadays, has become the main driving force for the building of evidence-based education[34].

Although the neurology of language was launched in the nineteenth century, the discovery of the two language-related functional areas in the human cerebral cortex, Broca's area and Wernicke's area, advanced the idea of modularization of brain function. But for a long period of time, neuroscience has been dominated by pathological and animal research, and the research subjects are mainly brain-injured patients and animals. The extent to which the research results can be generalized to normal people has been limited, as has the application in the field of education. Even the limited application has resulted in various misuse and misunderstanding of brain science research findings and the emergence of various neural myths, such as the myths about left-brained versus right-brained people and the misconception that people only use a small portion of their brain's resources or potential. Consequently, emerging educational neuroscience has made debunking these neural myths one of its primary goals[35].

The development of non-invasive methods of brain research such as functional brain imaging at the end of the last century has allowed researchers to use normal people as subjects. This facilitated the development of neuroscience and expanded the prospects for its application in education, as results based on normal subjects are more likely to be generalized to other normal subjects, which is the main part of education. Neuroscience, educational neuroscience in particular, is increasingly being emphasized by education, government and society[36].

Chinese is a language of great interest to neuroscience research, and the comparative study of Chinese characters and alphabetic scripts is a frequently used paradigm in neuroscience research. Because Chinese employs an ideographic writing system and its pronunciations need to be memorized, which distinguishes it from alphabetic systems. The ideographic nature of Chinese characters makes Chinese one of the few languages in the world with the deepest orthography. Comparing and revealing the commonalities and specificities of the neural processing mechanisms of Chinese characters and alphabetic scripts is the goal of many neuroscience researchers. Currently, research in this area has achieved relatively rich results. Some studies have shown that there is a certain degree of difference in the neural processing mechanism between Chinese and alphabetic languages as mother tongues. And this difference forces Chinese learners to have to adopt different neural strategies to process Chinese than their native language[37].

Although neuroscience has revealed that the brain processing mechanism and brain learning mechanism of Chinese writing system are different from those of languages using alphabetic writing system, there have been very few theoretical discussions and practical studies based on these new findings in the field of Chinese language teaching and education.

Some pioneering discussion in this area is found in the book "Innovations in Second Language Education from the Perspective of Educational Neuroscience" co-authored by Zhou and Chen[38]. In Chapter 4 of the book, "Teaching Chinese and English as Second Languages", the authors devote a section to the implications of neuroscientific research on teaching of Chinese characters.

Neuroscience is one of the most rapidly developing scientific fields in the 21st century. The integration of education and neuroscience, i.e., educational neuroscience, has been a major driving force in the building of evidence-based education[34]. Research in neuroscience can provide educators with strong scientific evidence and a more scientific basis for educational decision-making. The same should be true for Chinese language education. Whether the educational decision-making on how to glocalize Chinese language teaching is scientific would ultimately affect the success or failure of the globalization of this area. It is the major challenge for the development of this area.

Take the teaching of reading in English-speaking countries as an example. English, with its alphabetic writing system, is a language with a deep orthography, and the teaching of reading at the elementary level is often characterized by a controversy between the holistic language teaching method and the alphabetic spelling teaching method. Based on their own feelings and experiences, educators as well as some researchers oppose the spelling teaching based on morphophonemic conversion introduced by the government and insist on the holistic reading teaching method even though neuroscience findings on reading and word recognition do not support the holistic pedagogy [39].

There are a lot of neuroscience studies with native speakers as subjects or bilinguals as subject. The results of such researches can all serve as scientific evidence for supporting scientific decision-making in Chinese language teaching.

Therefore, scientific decision-making in Chinese language teaching requires three knowledge: the individual experience and wisdom of educators, external scientific evidence, and pedagogical validation of this evidence in education.

That means Chinese language teaching for global Chinese learners should establish its own teaching theories, methods and models based on scientific evidence and test them before their broad application and glocalization in education.

The most significant feature of Chinese language teaching is decided by the ideographic writing system of Chinese characters which resulting lack of synchronization between its' spoken system learning and writing system learning, and is also one of the great challenges of Chinese language learning and teaching. There is much debate in the academic community about how this phenomenon should be handled in teaching. This is a crucial decision making during the glocalization of Chinese language teaching. The answers need scientific evidence and need to be verified in teaching.

4. Conclusion: scientific glocalization

Humanism and scientism in the context of Chinese language help us to understanding and grasp the features of the development of global Chinese language teaching. Scientific glocalization is the key for Chinese language teaching to face the growing global demand for Chinese language learning. While glocalization have been more successful, more effort should be focus on evidence to make sure the glocalization is scientific, which means application of findings in neuroscience and educational neuroscience in this area and the test and validation of such application.

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