

The Key Discipline Construction about National Culture and Cognitive Science

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In December 2015, College of National Culture and Cognitive sciences was founded in Guizhou Minzu University, which is an important step in the construction of new cross discipline. In July 2016, the discipline of “national culture and cognitive science” was selected as the key construction discipline in our university. In August, in the evaluation of key disciplines in Guizhou province, we ranked the first in the Humanities and Social Science group, and was listed as the key discipline of Guizhou province. This fully shows that the new cross discipline of national culture and cognitive science has a strong vitality and a promising prospect.

As the head of the discipline of national culture and cognitive science, I will report the construction of this discipline and some of our experiences in five parts for all the experts and scholars.

1. Significance and Value of Building National Culture and Cognitive Science

1.1 Cognitive science was the leading discipline in the twenty-first century, and Human Brain Project was needed for national development strategies

Cognitive science, founded in the 1970s, is formed by the six disciplines of philosophy, anthropology, linguistics, psychology, computer science and neuroscience, with the goal of exploring the mysteries of the human mind and promoting the development of related disciplines.

The development of cognitive science in the world is in full swing. The development of cognitive science has triggered brain projects around the world, as cognitive science studies the mysteries of the brain. Since the establishment of cognitive science, Japan, Europe, the United States and other countries and regions have formulated national plans for brain science, and China’s national brain program is also

being actively formulated. Therefore, the twenty-first Century was called “the era of brain science.”

General secretary Xi Jinping has put his emphasis on nine major problems on the 5th Plenary Session of the 18th CPC Central Committee when he talked about the 13th Five-year Plan, one of which is “to develop a number of major scientific and technological projects such as aviation engine, quantum communication, intelligent manufacturing and robotics, deep space and deep sea exploration, key new materials, brain science, health care”. In these national strategies such as brain program and cognitive science, Guizhou should integrate various forces and make contributions with innovation according to the existing basic conditions.

1.2 The local national culture of our province has both the world significance and the special cognitive value

Guizhou is a multi-ethnic gathering place with rich ethnic culture resources, especially for the local national culture, which is of worldwide value. Comrade Chen Miner, Secretary of the CPC Guizhou Provincial Committee, pointed out, “the colorful ethnic culture is the most cherished treasure in Guizhou.” So it is our bounden duty to protect, inherit, spread national culture, and to promote the healthy, harmonious and orderly development of the national folk culture in our province.

1.3 The construction of cross disciplinary of national culture and cognitive science is an inevitable choice for building a first-class Minzu University

In his exclusive interview with Science Times, Professor Cai Shushan suggested that “without cognitive science, we should not call it a world class university” “. ” No cognitive science, no world-class Universities “ has become the consensus of domestic first-class universities.

College of national culture and cognitive sciences in Guizhou Minzu University is the first college named “cognitive science “ in China. Chen Lin, president of I-ACS, chairman of CSCS, and academician of CAS, thinks that it is a good choice for Guizhou Minzu University to combine national culture with cognitive science, and it is very distinctive. To build a high-level and first-class national university in China, we need the guidance and demonstration of this new cross discipline of national culture and cognitive science.

2. Good Basic Conditions in Our School to Establish this New Cross Discipline

2.1 Influential Leading Scholars in National Culture and Cognitive Science

Professor Cai Shushan, from Tsinghua University, was introduced as dean of college of national culture and cognitive science in our school. Cai Shushan, Ph.D. in philosophy of China Academy of Social Sciences, Professor of department of psychology at Tsinghua University, Ph.D. supervisor; Director of Psychology and Cognitive Science Research Center of Tsinghua University; Director of Cognitive Science Research Base of “985 Project” of Ministry of Education. He had been visiting researcher at Harvard University, University of California at Berkeley, University of Hamburg in Germany and other world-class universities; He is currently Chairman of the International Union for Educational Innovation with NBICT; He is the winner of “Lifetime Achievement Award” in National Psychological Industry Development Forum 2016; Consultant of Beijing natural science community and social science community joint meeting; Evaluation experts for NSFC, SSFC, and the humanities and social science planning project of Ministry of Education; Leader and chief expert for National Social Science Fund Major Bidding Project “High-level cognitive research in language, thinking and culture” (15ZDB017); He wrote many works such as Human Mind And Cognition, and published more than 150 papers in some important international and domestic academic journals such as Chinese Science Bulletin, Social Sciences in China.

At the same time, our school has a academic research team with corresponding academic background, which is composed of a number of well-known professors. For example, professor Zhang Xueli, he is the leading scholar in this key discipline, and he has achieved some results in previous research. Besides, professor Long Haiyan, Professor Long Yaohong, Professor Wang Lin, Professor Du Wei are also very famous leaders in their corresponding disciplines .

Zhang Xueli, Ph.D. of Nankai University and Ph.D. supervisor; Former president of Guizhou Minzu University, current secretary of the school party committee, vice president of Guizhou Provincial Federation of Social Sciences. He is the leading talent in philosophy and social science of national high-level personnel of special support program; National young experts with outstanding contributions; National “Key Talents Project ” candidate; He is the famous cultural expert in Publicity Department of the CPC; He is the expert who enjoys special allowance of the State Council; Core expert in Guizhou province, the first batch of “Qianling schol

ars ” in Guizhou province, academic leader in philosophy and social sciences in Guizhou province, Distinguished Teacher of Guizhou Province, chairman of the Committee of Chinese Logic History of The Chinese Association of Logic, president of the Guizhou Provincial Association of Logic, president of National Culture Society of Guizhou. He has studied in universities and research institutions in the United States, Canada and other countries. And he has also finished 10 national and provincial projects. He has published monographs, textbooks, collected works, and more than 70 papers. He established Logic, Cultural and Cognitive Research Center in our school, and established College of National Culture and Cognitive Science together with professor Cai Shushan. He is devoted to study the relevance between culture and logic.

2.2 Four Directions

There are 4 main research directions: (1) logic, culture and cognition; (2) national language and cognition; (3) ethnic education and cognition; (4) big data of national culture and cognition.

2.2.1 Logic, Culture and Cognition

In this direction, the process of thinking development of different cultural groups are taken as the object. With the research method of cross cultural logic and cognition, we mainly focus on the minority nationalities in the southwest China especially the similarities and differences of logic and cognition between Guizhou 17 native ethnic minorities and Han nationality, and study their cognitive activities and rules. This direction highlights research fields such as “cognitive logic”, “psychological logic”, “logic of culture and evolution”, “ thinking and logical pattern of Yi, Shui, Buyi, etc”. And we are in the leading position in these fields both in China and abroad.

2.2.2 National Language and Cognition

The direction takes national the languages of Guizhou native ethnic minorities as the object. From different aspects such as different meaning of national language, grammar, embodied experience, concept representation and language acquisition, etc, we aim to study the thinking and cognitive ways of different nations, and to reveal the relationship and rules between ethnic language and cognition. This direction is responsible for the organization, investigation and analysis of two major bidding projects of National Social Science Fund, and is expected to make exploration in national language policy making and bilingual harmony, and to make contribu-

tions to the high-end talent training of intercultural communication.

2.2.3 Ethnic education and cognition

This direction is based on the unique resources of Guizhou ethnic minority cognition model relating to “human development”, and examines the traditional education and recognition model of ethnic minorities in Guizhou from three aspects: national culture, brain and education; ethnic education and social development; educational anthropology. We aim to explore the internal interaction mechanism between culture and national education, and put forward a new model of national education which adapts to the development of new era and conforms to the characteristics of national cognition. This direction relies on four existing undergraduate majors: pre-school education, applied psychology, educational technology and special education, with the aim to explore the internal mechanism of children’s learning in different cultural groups, to provide scientific basis for respecting the diversity of education practice and promoting policy-making of educational equality, and to reshape the scientific practice of national education.

2.2.4 Big Data of National Culture and Cognition

Big data of national culture and cognition is an emerging field based on national culture which integrates with computer science, statistics, mathematics, ethnology, sociology and other disciplines. By perceiving, obtaining, integrating, analysing and applying big data of national culture, we can solve some challenges like ethnic culture protection and inheritance, and provide a new tool for innovative transformation and innovative development of national culture. In this direction, we use some data management and analysis like big data, data activation and data mining, to study and analyse big data of national culture, and to enhance the cognitive computing ability of data (i.e. ability to understand, reasoning and discover data). And we have formed our own characteristics in artificial intelligence, machine learning, pattern recognition, data mining based on Agent, intelligent information processing and storage, etc.

2.3 Academic Foundations and Conditions

2.3.1 Leaders in Various Directions are Influential Scholars in China or in the Province

Professor Cai Shushan and Professor Zhang Xueli are leaders in logic, culture and cognition.

Professor Long Haiyan, head of the national language and cognition. Academic leaders of Guizhou Minzu University; excellent master supervisor and teaching expert at the provincial level.

Professor Xie Zhiju, head of ethnic education and cognition. The new century excellent talent of the Ministry of Education; Guizhou provincial excellent expert; Young academic innovation talents of philosophy and social science in colleges and universities of Guizhou province.

Professor Xiao Yuanping and Professor Wang Lin, leaders of big data of national culture and cognition. Professor Xiao Yuanping, PH.D in literature of Central China Normal University, members of the ethnic education expert committee of the Ministry of Education, director and chief expert of Research Institute for Southern Ethnic Intangible Cultural Heritage, leading scholar in Guizhou Minzu University. Professor Wang Lin, Ph.D in Université de Bordeaux 3 Michel de Montaigne, outstanding scientific and technological workers in Guizhou province.

2.3.2 A Strong Teaching and Research Team

This discipline has 27 full-time teaching and research staff, and 19 experts with national and provincial level. Leaders in all directions are well-known experts in the field of China and they also work as doctoral supervisors. Most of the team members graduated from universities with Project 985. So this is a strong academic team with solid academic background, wide field of vision, rich teaching experience and fruitful scientific research.

At the same time, we invite 12 experts from University of Hamburg, Peking University, The Chinese University of Hong Kong and other institutions to join us.

At present, the team undertakes 20 projects, with a budget of 4.537 million yuan. Since 2014, remarkable achievements have been made in scientific research, including 57 high-level papers, 10 awards at provincial and ministerial level, 22 monographs and textbooks, and 6 programs with intellectual property rights. In the past three years, 14 international and domestic academic conferences have been held, and academic exchanges at home and abroad have been actively carried out.

2.3.3 Scientific Research Platform and Supporting Conditions for Cross Discipline

This cross-disciplinary research platform is based on integrated disciplines of Arts, Science and Engineering in our school. And we have established a cross - disciplinary research platform for arts and crafts, forming the resource conditions for cross - disciplinary development of national culture and cognitive science.

The nine societies of nationalities in our province are affiliated to our school.

The discipline of national culture and cognitive science is based on five master points in our school: ethnology, sociology, Chinese literature, mathematics and statistics. And we have the unique Collaborative Innovation Center of Cultural Heritage in Guizhou — Colorful Guizhou Cultural Collaborative Innovation Center; two Humanities and Social Science Base of SEAC—“Guizhou Local Minorities Research Base” and Intangible Cultural Heritage of Southern Minorities Research Base; a minority talents training base in Guizhou Province —“Guizhou Province Talent Training Base of Social Management” .

At present, this discipline have integrated two undergraduate majors: Applied Psychology and Preschool Education. We have ten master points which are second degree subject: Logic and cognition, anthropology, ethnology, linguistics and applied linguistics, Chinese ethnic language and literature, applied mathematics, computational mathematics, complex information analysis and calculation, statistics, social and economic statistics. And we have a Ph.D. program for special needs of national service :Social management in southwest ethnic areas.

National Language Laboratory, Guizhou Provincial Key Laboratory of Pattern Recognition and Intelligent System have provided solid support for the discipline development. Psychological Behavior Laboratory, ERP laboratory, Higher-order Cognition Laboratory has been approved, and the construction is now under way. The school library has 1.8712 million paper-based documents and 27 TB electronic resources, including 1.03 million electronic books and 13 Guizhou Local Literature Material databases. At the same time, this discipline has covered area of 5000 square meters for teaching, research and laboratory housing.

3.The Xonstruction Plan and Target of this Discipline

The vision (target) of discipline construction :Focus on the characteristics of nationality, regionalism and cultural diversity of Guizhou province; Bulid a domestic first-class innovative cognitive science discipline with world impact, combining with unique ethnic culture of Guizhou province.

Complete following tasks within three years (this part is omitted):

- (1) the introduction of more than 15 various types of high-level talents .
- (2) to obtain more than 10 national level project; to obtain more than 10 ministerial level projects; to publish more than 20 publications as the first author or rights; to publish more than 45 papers in SCI, EI, A&H, HCI, SSCI, CSSCI jour-

nals.

(3) to set up some relevant master's degree programs such as logic and cognition, national culture and cognition, anthropology; and actively participate in the construction of relevant first-level disciplines for doctoral degree. Our target is to cultivate more than 30 master students, more than 5 doctoral students.

(4) to publish a series of national culture and cognitive science textbook of Guizhou Minzu University - Tsinghua University and more than 15 teaching research papers in the core journals.

(5) to get more than 5 awards for scientific research achievements

(6) to hold more than 3 international academic conferences, more than 3 national academic conferences, and more than 1 international cooperation projects.

4. Guaranteeing Measures

In the construction of "Double First-rate", we should concentrate our efforts on the construction of College of National Culture and Cognitive Science and this new cross discipline.

1. Deepen the reform of scientific research system and education & teaching, and create a good environment conducive to the development of disciplines

2. Strengthen the training and introduction of high-level leading talents

Based on the training of young and middle-aged scholars in our school, we will encourage and support the backbone of this discipline to serve as a visiting scholar in the international or domestic first-class universities or research institutions, and carry out project cooperation studies;

Introduce some high-level experts at full time as academic leaders or academic backbone; flexibly introduce some international and domestic high-level experts as academic leaders or academic backbone. Now we have introduced nearly 20 international and domestic senior scholars in related disciplines.

3. Increase the investment in discipline construction

5. Conclusion

1. Discipline construction must stand in the leading position of international disciplines.

2. Only the ethical things can belong to the world. By combining the excellent

Chinese national culture with cognitive science, the discipline construction can be both national and international. Practice has proved that our attempt is successful, and the new cross discipline of national culture and cognitive science has a strong vitality and good prospect for development.

3. In the construction of “Double First-rate”, the construction of first-rate discipline is fundamental. Only a university with a first-rate discipline can become a first-rate university. In the process of building a high-level and first-rate Minzu University, national culture and cognitive science will become an important driving force for the construction of a first-rate Minzu University.