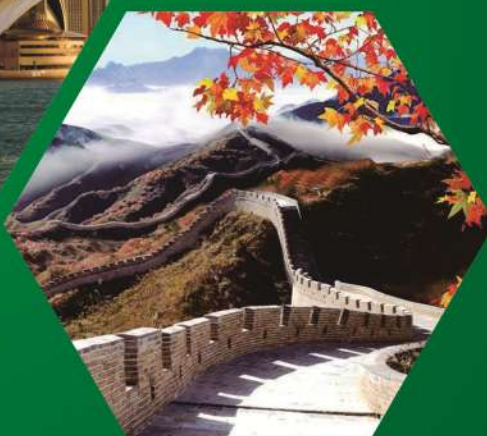


Aussie -Sino Studies

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International Prize Essay for Aussie-Sino Studies



The Journal of Aussie-Sino Studies (JASS) is a multi-discipline, peer-reviewed, open-access, comprehensive international journal (ISSN: 2204-6135; AN: 54116474), which has been approved by the National Library of Australia, and published by the Sino-Aussie Unique Cooperation Centre for Educational Study and Service, Australia. We aim to build a Bridge of Understanding and Cooperation (based on sharing knowledge) between North and South.

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The Business of Stereotyping People: The Contemporary Chinese Perception of the Jewish People and the Official Attempt of Bringing Jewish Money to Harbin

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Abstract: Efforts in Harbin to rediscover the Jewish People as potential money mongers and plans aiming at bringing "Jewish business" to Heilongjiang and to its capital city should be seen as a present day scheme to attempt at recruiting world Jewish business investments with the cover of history for a particular local purpose. Although the number of Jews who engage in business very successfully is small, most Chinese people believe that the Jews own most of the world's fortunes. Stereotypes of high Jewish intellect and genius, that all Jews are very good in business, that Jewish money gives the Jews world power, as well as Jewish cunningness – Jewish skill in achieving one's ends by deceit or evasion, are being presented in academic, social and political spheres. These misguided notions have penetrated all levels of the Chinese society. How this concept of Jews being money dominant power of the world came into being in China, who introduced these and the other stereotypes into the Chinese minds and why, and how it manifests itself in today's China, are the key questions to this study attempts to answer.

Key words: stereotypes, business, power, history, Chinese

What has come to be known as the 'Fugu Plan', a secret Japanese plot designed to recruit "world Jewish money" and use it to enhance Japan's war torn economy some sixty-five years ago, has been reconstructed in Harbin once again. Any plan aiming at bringing "Jewish business" to Heilongjiang and to its capital city may very well be seen as a present day scheme to attempt at recruiting world Jewish business investments for a particular local purpose. And in this case, with the cover of history.

In June 2007, Harbin hosted an "International Forum on Economic Cooperation with World Jews". The 3-day weekend event, which coincided with the annual International Harbin Trade Fair, aimed at bringing Jewish investment money to the capital of Heilongjiang province. Furthermore, it was the organizers' intention to display their ability of recruiting "Jewish money" from around the world, thus fulfilling a mandate given to them several years earlier, and by doing so, elevating themselves to an important position within the provincial and city governments. Like the failed Japanese Fugu Plan of the 1920s and 30s, so did they, being unsuccessful in fulfilling their purpose.

Although the number of Jews who engage in business very successfully is small, most Chinese people believe that the Jews own most of the world's fortunes.

Most Chinese have never met a Jewish person, nor hold a minimal knowledge of what Judaism or being Jewish is all about. Never the less, stereotypes of high Jewish intellect and genius, that

all Jews are very good in business, that Jewish money gives the Jews world power, as well as Jewish cunningness – Jewish skill in achieving one's ends by deceit or evasion, are being presented in academic, social and political spheres. These misguided notions have penetrated all levels of the Chinese society.

How this concept of Jews being money dominant power of the world came into being in China, who introduced these and the other stereotypes into the Chinese minds and why, and how it manifests itself in today's China, are the key questions to which we are searching for answers. The study of economics and business is fundamentally about human decisionmaking. It is a branch of the social sciences concerned primarily with analyzing and explaining human behavior in making decisions about the allocation and distribution of resources. In this context, some construed the Jewish people as a valuable resource.

Economy and business have been two key concepts in China's policy-making in the past twenty years. It is well understood here that in order to be an active player within the global community, China should be using both economics and business concepts to its advantage.

Being an important industrial and agricultural center in China, Heilongjiang province has been vigorously engaged in promoting its resources and goods. In the past several years, the northeastern most province has been trying to reach new sources of investments, without which its economic future would be stagnating and left far

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behind. The local government has been exploring various avenues to achieve its economic rejuvenation and one of those, the "Jewish file" was grabbed by the provincial Academy of Social Sciences.

A study of the policy and decision-making process of the various provincial government departments that are charged with these tasks reveals a serious lack of insight into the problem and many misconceptions or misunderstandings about human traits.

These misconceptions and or misunderstandings have been translated into a distorted reality, thus creating a misrepresented picture of the course of action needed and making it difficult to achieve favorable results. Moreover, it is characterized by attaching misguided labels that are, on many occasions, based on ignorance, stereotypes, and bias.

There are very few references to Jews or Jewish People in the early Chinese writings. While some Chinese scholars believe that "Jews came to China as early as 800BC," most scholars think that "there was Jewish migration to China no later than in the Tang Dynasty." The term used to identify Jews or a Jewish person was *lu de ya* - Judah and according to Xin Quanming and Tian Wenge, the term was changed much later by Western missionaries to "Youtai" (犹太) or "Youtai" (尤太).

The term Youtai was first introduced in the Eastern-Western Monthly Magazine edited by Karl Gützlaff, a German missionary, in 1833. The magazine used the terms "Youtai guo (A country of Jewish people)". Later, the terms "Youtai min" (Jewish people) were used in *Christ Jesus Came into the World* published in 1836, and then "Youtai ren" (Jewish people) in the Bible published in 1840. Afterward, Youtai was adopted in *Brief Introduction of the World* and the official document of *Taiping Tianguo*.

But the meaning of the term Youtai had negative connotation.

In the 1830s, Missionaries Walter Henry Medhurst and Karl Gützlaff started to translate the Bible for a new Chinese version. In order to ease translation complications in earlier Bible publication, they invented the term Youtai to replace "路得亚" (*lu de ya* - Judah), the former translation for Jewish people. Medhurst thought that the term "lu de ya" did not present what he thought was the negative character of the Jews, whom he regarded as "unjust, unbelievable and trustless".

Because China used to animalize foreign nations and foreign people in Chinese characters, Medhurst chose "犹" (you - a mad dog)—the one with the character "犭" for his purpose. In 1837 in his edited Chinese-English dictionary, Medhurst defined "犹" (you) as "people who are unreliable and suspicious".

The Medhurst-Gützlaff Bible was very easy to read and understand, and became popular throughout China. Soon the term Youtai was accepted widely, and it was many years later that the term went through transformation and a change in its original characters. Gradually, Youtai became the standard term for translation for Jewish people in China¹⁵, and used to describe high

Jewish intellect, very good in business and money

powerdominated. The etymology (语源学) of "business" refers to the state of being, in the context of the individual as well as the community or society. In other words, to be busy is to be doing commercially viable and profitable work⁴, and it refers to the community as a whole, not just to one group within it. But in China, excellence in business is a trademark attached to all Jews.

Harbin, the capital city of Heilongjiang province, has been a home for the largest Jewish community in China for over half a century. Among the members of the Jewish community were some who engaged in different branches of business – local and international. Those relatively few contributed to the economy of the city and laid the foundations for its growth. They were Jewish businesspersons who engaged in business – not "Jewish business", because there is no such concept to my knowledge, unless one sells or buys Judaica stuff.

The Jewish community in Shanghai was founded by several Jewish families who came there more than 200 years ago in order to expand their businesses. They were the exception because the growth of the Jewish community there was based on thousands of poor refugees who escaped the Japanese in Harbin and later the burning Europe.

The "Jewish business" biased phenomena has been manifested in a mental process that groups similar objectives, or people, into a stereotypical linkage of images and words⁵. Further more, since the enactment of the "opening up to the world" policy, China has been engaged in an endless festival of economics and business. In this festival, the Jews as a group are among the highly regarded guests of honor.

Some Cases in Point

A recent article in the American based Washington Post investigated the "Sold on a Stereotype" phenomena. Ariana Eunjung Cha, a Chinese correspondent for the Post, asserted that "in China, a popular genre of selfhelp books purports to tell the secrets of making money 'the Jewish way.'"

Showcased in bookstores are stacks of books built on a stereotype: "The Eight Most Valuable Business Secrets of the Jewish Business", "The Legend of Jewish Wealth," "Jewish People and Business: The Bible of How to Live Their Lives," and "Jewish Entrepreneurial Experience and Business Wisdom," are among the most popular ones.

Making money "the Jewish way"? Cha asserts that "in the United States, where making broad generalizations about races, cultures or religions has become unacceptable in most circles, the titles of some of these books might make people cringe. Throughout history and around the world, even outwardly innocuous and broadly accepted characterizations of Jews have sometimes formed the basis for eventual campaigns of violent anti-Semitism."

Audrie Ohana, who works at her Shanghai family's import/export company and attended China's prestigious Fudan University, says that these "Jewish" success books are very dangerous. What they say it's not true. In our community, it's not

everybody that succeeds. We're like everyone else. Some are rich, but there are others that are very poor."

The books, despite their covers, focus on basic business genius that has little to do with religion or culture, and every book features one or more case studies of the success of the Lehman brothers, the Rothschilds and other Jewish "titans of industry and captains of finance," as one author put it. Some works incorrectly refer to J.P. Morgan (an influential Episcopalian leader) and John D. Rockefeller (a devout Baptist) as Jewish businessmen.

According to Cha, "among this booming genre's most popular books is William Hampton's 'Jewish Entrepreneurial Experience and Business Wisdom.' It comes packaged in a red and gold cover, and a banner along the top brags that it was a "gold list" bestseller in the United States. Among Hampton's credentials, according to his biography: "Business Week editor," part of the "pioneer batch of Harvard DBAs," "professor in business strategy and philosophy" with "many years of experience in Jewish studies."

Cha and her research associate Ai Ghee Ong spoke with He Xiong Fe, a visiting professor in Nankai University's literature department. Prof. He estimated "that more than half of the books are fakes, written by people who are not familiar with Judaism or Jewish history and who have made up their qualifications. There are only a few books that have value," said He, who has lectured on such topics as "Why are Jewish people so smart?" and "The mystery of the Jews."

When asked for contact information for William Hampton, author of "Jewish Entrepreneurial Experience and Business Wisdom," a representative for the book's publisher, Harbin Press, said the company obtained the manuscript from a translator and had never met the author. Several days later, the publisher said she had trouble reaching the translator so she could not provide more details about the origin of the book.

A search of international ISBNs pulled up no hits for books by a William Hampton with a title similar to "Jewish Entrepreneurial Experience and Business Wisdom." Harvard Business School has no record of a William Hampton in the first class of its doctorate of business administration program. Officials at Business Week magazine said there was a former employee with that name... He publishes an automobile newsletter, but had never served as an editor.

William Hampton, who lives near Detroit, said he had no idea where the book came from. "I can confidently tell you that this is not something that I did," he said. "This would not be a topic I would be knowledgeable about in any way. It would be helpful to be Jewish, for one thing."

These kinds of books that contribute stereotypes about Jews and their supposed cleverness and business prowess have given them an iconic status in the eyes of the Chinese public.

These "pop" publications, including those of the Christian New Testament under the cover of the "Holy Bible" and the popular "Stories of the Bible" with stories from the Old and New Testaments

mixed together, have penetrated also the libraries of China's academic institutions.

In a 1998 essay "on stereotypes of Jewishness in China" Zhou Yun tries to trace the Chinese perception of the Jews. "In modern China, the term 'Jew' or 'Youtai', can be a symbol for money, deviousness and meanness; it can also represent poverty, trustworthiness and warm heartedness. It has religious as well as secular meanings. While it represents individualism, it also stands for a collective spirit. It symbolizes tradition, and can equally invoke modernity. One day the 'Jew' is a stateless slave, another day he is the dominant power in the world. The 'Jew' is nationalist and at the same time cosmopolitan. He can be a filthy capitalist or an ardent communist, a committed revolutionary or a spineless loser. In other words, anything which the Chinese aspire to is Jewish, and, at the same time, anything which they despise is also Jewish."

Not all of the Jews have much money. As a matter of fact there are, and there always have been, gaps between the wealthy and the poor within the Jewish communities, the same as in any other community. In fact, impoverished Jews exist much like impoverished Chinese or any other group of people anywhere in the world.

Never the less, most Chinese people believe that Jews own the most of the world's riches.

Baron de la Brede et de Montesquieu has said in his book *Persian Letters* that "there are Jews where there are riches". The book has been translated into Chinese.

William Shakespeare's plays are part of the Chinese students' study curriculum. When they learn the "Merchant of Venice" most of them are being introduced to stereotypical commentaries by illinformed teachers or popular internet sources.

Being fascinated by the term "Jew", many Chinese look for sources that may reveal the secrets of the "Jewish wisdom". They buy books such as the "Bible" or "Biblical Stories" with the hope that those will help them understand better the Christian phenomena to which they include the Jews. Although the books available in the Chinese stores carry on their cover graphic images of Moses or Abraham, they are popular versions of the Christian "New Testament" and have nothing to do with the Bible – the "Old Testament", or the Jewish religion. Among the books that one can purchase in today's China are publications that promise to provide the readers with a better understanding of Jewishness. Those books "present" a large spectrum of subjects, among them Jewish laws, Jewish economics, business and money. These books are available as the Jewish knowledge part in all of China's libraries, including those in the universities. In many cases these books are being produced by publishing companies that follow popular trends with a hope to enlarge their bank accounts. The books, compiled boastfully with articles copied from unknown sources or written by obscured authors, proclaim that one may find an answer to any question he has about Judaism and Jewish power – wisdom or money.

Between 1978 and 2002 a total of 384 books on the subject of Western religion were published in China. Most of the books were written by Western Christians, and the rest were translations done by Chinese. The *Moses Mystery: The African Origins of the Jewish People*, was the only book written by a Jewish person. Peter S. Temes of the New York Times Book Review wrote on January 26, 1997 that "Most readers won't be able to make any connection between these arcana and their own experiences of the Bible. The scholarly audience is likely to reject "The Moses Mystery" for its poor method, while the general reading audience is not likely to make it beyond the first page of argumentative, obscure prose." Never the less the book was translated to Chinese.

Between 2002 and 2007 China witnessed a surge in local publications on the subject of Western religion. We could not find a single translated book on Judaism or the Bible – Old Testament written by an authoritative Jewish or Israel scholar.

"Judaism is not a recognized religion in China, but people here regard the Jews as highly intelligent people and want to learn from them," say Dr. Pertti Sulevi Nikkila and his wife Dr. Aune Kaisa Maria Nikkila from the missionary Institute of SinoChristian Studies Ltd. in Hong Kong. They were invited to lecture on "Christian Thoughts" in November 2007 at Heilongjiang University in Harbin. Both of them received their Th.D from the University of Helsinki in Finland. Their interests are mainly on Systematic Theology, Religion and Culture and Religious Education. The couple teaches the values as presented in the Christian "Holy Bible" and do not make a clear distinction between that and the Old Testament. In a lecture they gave on November 13, 2007 to students from the Religion Department at the university, they spoke about the position of man before "the lord" and about good and evil. "Bad and good are not for us to judge. Hitler and Mother Teresa or Gandhi are equal before the Lord and only he can judge them for being good or evil," the missionaries said.

Follow this assertion and connect it to the Christian belief that Christ was betrayed by Judah the Jew, and that in his resurrection on the third day after the Crucifixion and his subsequent transformation to a life of holiness where he is now the son of the Lord, one may believe, according to this type of preaching, that Hitler's actions were justified because he was the Lord's creation.

According to a report by an unidentified member of the State Council's Bureau of Religious Affairs, published in Beijing Review, Sept. 17, 1997, there were 18,040,000 Muslims and 14,022,000 Christians among them 4,004,000 Catholics and 10,018,000 Protestants. The number of missionaries and people who say they are Christian believers has grown dramatically since then.

Christianity enjoys legal recognition in China. But the authorities have no tools with which they can examine the practices unless there is a threat to the State. And although Christianity here comes with Chinese characteristics, old stereotypical notions tend to find their way in.

"The Talmud and the understanding of Jewish laws" is one

of the subjects written about by Chinese scholars. It describes the relationship between people in many matters. The laws play a great role in the Jewish religious life. They tell people how to deal with everyday issues among them money, labor relations, and damages. However, books written in China misinterpret and misguide the ignorant or the uninformed reader.

A Chinese book written by Prof. Zhang Qianhong and titled 犹太人 犹太精神 Jews • Jewish Spirit²⁴ presents her understanding of the Talmud as a source of laws and rules regarding the Jewish dealings with matters of money for one's own "selfish and sole benefits". In the chapter titled "The Famous Spirit of Financing" 25 the first quotation as a subtitle reads as follows: "金钱叮当作响, 坏话便戛然而止。《圣经》放射光明, 金钱散发温暖。"

"Money stops those who put a knife in your back, and the Bible shines like the "Money stops those who put a knife in your back, and the Bible shines like the sun and money sends out warmth."

The author continues and says that "the Talmud teaches people to cherish money as well as cherish oneself": "身体依靠心而生存, 心则依靠钱包而生存。"

"One can not live without the heart, while the heart stops beating without the purse."

"钱不是罪恶, 也不是诅咒, 它在祝福着人们。"

"Money is a blessing, not a vice or a curse."

"拥有很多财产, 忧愁可能相对增加, 但完全没有财产的人, 忧愁更多。"

"Those who have money live with worries, but those who have not, carry greater worries."

Programs and conferences in China on subjects such as "Bringing Jewish Business", and "Uncovering the Jewish Wisdom", are among those which are being conceived, debated, and implemented in governmental departments and academic institutions.

In 1999 Prof. Zhang Tiejiang, a Research Fellow at the Heilongjiang Academy of Social Sciences and the Assistant Director of its Jewish Center, wrote an essay titled 'Suggestions for the Study of Harbin Jews to Quicken Heilongjiang Economic Development'.

"In December of that year, Prime Minister Li Peng went on a visit to Israel for the first time. Soon after that Zhang Tiejiang's essay was published by the Xinhua News Agency. And on April 7, 2000, the essay was sent to the related departments in the Central government, and then to the Provincial government. Mr. Song Fatang, then the Party Secretary of Heilongjiang province, sent a document to the Heilongjiang Academy of Social Sciences. In the document he wrote "Comrade Qu Wei, please intensify the study of the history of Harbin Jews, in order to help expand our cooperative services".

"Zhang Tiejiang's proposal of taking advantage of the Jewish asset in Harbin just coincided with the Government of Heilongjiang Province's intention of developing. The experience gained in Shanghai stimulated the Government of Heilongjiang.

Shanghai, which started the study of the history of Jews in 1988, made the most of Jewish special historical complex for the Jewish sites and distinguishing features of buildings and succeeded in attracting investments. As a result, room for Jewish Studies was set up in the Heilongjiang Provincial Academy of Social Sciences, and it was renamed as Center of Jewish Studies.

An investigation conducted by the influential Southern Metropolitan Magazine found that the reports of the Heilongjiang Provincial Academy of Social Sciences to the government, always advised of integrating, packaging and promoting Jewish culture in Harbin only for investments. Meeting dignitaries, and calling on political leaders of the host countries, also had these to be a main point for a good use of the human resources for investments there.

In fact, the Academy's Jewish Research Center has established the similar direction long before. Its central promotion site described it like this: 'attracting [Jewish] business investments as the tenet of our existence and purpose'..."

The "International Forum on Economic Cooperation with World Jewry" held in Harbin in June 2007 is a good case study. The conference's original title was "The International Forum on Economic Cooperation between Harbin and the World's Jews Bringing Jewish Business to Harbin". It was organized and implemented by the Heilongjiang Academy of Social Sciences to coincide with the Harbin International Trade Expo between June 14 and 17, 2007.



A calendar examination shows that the main activities of the conference fell on Friday and Saturday, excluding any observant Jew from active participation. The activities included "Viewing in the exhibition hall of "Harbin fair for trade and economic cooperation, enterprises hold trade talks, attend the introduction meeting of Northeastern Old Industrial Base, and see the theatrical performance of Harbin fair for trade and economic cooperation".

Of the 83 participants, 16 were Israelis among them the Israeli ambassador and his wife, a delegation of five local politicians from the Givataim municipality (a twin city to Harbin), the mayor and deputy mayor of Amikam town, three persons representing the IsraelChina Friendship Association, two businessmen, one of Ehud Olmert's brothers who read a congratulatory letter of the Israeli Premier, and one professor from the faculty of the School of Western Studies at Heilongjiang University. There were nine guests representing the Jewish community Center in Birobijian, the "Jewish autonomous region of Russia". Three Americans, among them a history professor. Six guests from Hungary, all dentists, representing the Hungarian and Austrian Jewish Federations. The rest were Chinese, among them 15 from the Heilongjiang Academy of Social Sciences, a former ambassador of China to Israel, academicians from

several universities in China, and officials representing the Heilongjiang and Harbin governments. There was one Chinese businessman who came from Beijing to promote his travel agency.

But according to the official printed program, most of the foreign guests, including the Israelis, were entrepreneurs.

In his paper presented at the opening ceremony of the Forum, Harbin Mayor, Mr. Zhang Xiaolian, explained the important task of bringing Jewish investments to the city and the province:

"The most memorable outstanding Jewish figures, for instance, Carl Marx, Albert Einstein, Sigmund Freud, Edmund Husserl, J.P. Morgan, John Rockefeller... the admirable entrepreneurial spirit and extraordinary wisdom of the industrious... Jewish nation has won them the reputation of world's No. 1 merchant' with their unique business skills and large number of successful entrepreneurs over the world... In today's world there is a classic appraisal of the Jewish wealth, 'the world's money is in the pockets of Americans, and the Americans' money is in the pockets of the Jews'. This is the highest acclaim and praise to the Jewish wisdom... We will be more supportive, more openminded and more pragmatic, and work together with you, for a bright tomorrow..."

The Business of Bringing Jewish Business

Jewish entrepreneurs in China say they are bombarded with invitations to give seminars on how to make money "the Jewish way."

People in China may be fascinated by Jews because they feel both cultures share a strong entrepreneurial spirit. But, in fact, most Jewish people place higher value on superb education rather than on business.

"Jews are rich, powerful, wealthy, and shrewd. They know the secret of success in banking, trade and industry. And they know the key to gaining influence in the US in general and in the White House in particular."

These shared Chinese characterizations of Jews might sound like anti-Semitism, and many Jews object to it. But to sociologist Shalom Salomon Wald it is not. "It's actually a statement, he says, of the high regard in which China holds the Jewish people: These are the very traits that endear the Jews to the Chinese."

I believe that Wald is wrong because his assertion represents wishful hope, to say the least. This kind of "high regard to the Jewish people" is provocative and extremely dangerous, especially in a society that develops and promotes nationalism and race to its utmost.

Business has nothing to do with Judaism, and those who associate the two and equate them as inseparable parts will not bare their desired fruits.

Entrepreneurs will come to China only if it offers attractive incentives for doing business here. The same applies to Harbin. It has nothing to do with being Jewish or with the history of the city.

To achieve successful results the province should promote its resources and goods both domestically and abroad in a scientific and progressive way. Its course should be based on what resources,

goods, and special appeals the province has. It should match these with countries around the world that may be in need of such resources or, with foreign enterprises that can find these very attractive and beneficial to their business goals.

There are some examples of successful Israeli or Jewish owned companies that operate in China. Their success is due to their ability to maneuver through the complexity of rules, regulations and the huge bureaucracy.

But, many Israeli companies that came to China failed. They thought China was the new Promised Land but found it was not as simple as they anticipated, and could not adapt to the Chinese way of conducting business, to the cultural differences, nor could understand the markets and the potential partners here.

The Economic and Trade Attaché at the Israeli Embassy in Beijing says that too many of the Israeli and Jewish people who have come to China looking for golden business opportunities did not succeed because they are not good in doing business here, they are arrogant and do not understand or except cultural differences. What usually happens, the attaché says, is that they return home disappointed and burn the connections to the ground.

Such is the case with many other representatives of businesses from around the world. One does not have to be Jewish in order to succeed or fail.

After China has joined the WTO, the country tries to adhere to global standards.

This makes it relatively easier to all foreign multinational companies to conduct business here.

A recent study done by the McKenzie company concludes that by 2025 China will have more than 270 million middleclass consumers, thus becoming the third largest consuming market in the world, with private consumption of 2.3 trillion dollars. China will be by then a huge market for international enterprises.

As argued earlier, many in China, especially the younger generations, believe that Jews own most of the international enterprises. Stop any Chinese on a Beijing, Shanghai, Harbin or any other city here, and he will repeat a mantra he heard somewhere about the Jews being rich. No argument to the contrary will change his mind.

The concept of Jews being the money dominant power of the world came into being in China through missionaries who introduced these and the other stereotypes into the Chinese minds. The on going study on the subject by the Sino-Israel Research Center at Heilongjiang University's School of Western Studies shows that ill informed contemporary scholars, as well as the rise in publication of "Jewish success" books, have contributed to the deepening belief in such stereotypes.

Some of the scholars believe that the Jews had come to China through both the Silk Road and by way of the sea during the 7th and 8th centuries. The main reason cited for their travels to China was for trade and for avoiding discrimination and persecutions in the lands they lived in.

From these and other occasional publications one can not conclude that the Jews, as a group, possessed particular business skills that made them rise above any other group of people. As was the case with many of the travelers who reached the Chinese territories, some were merchants, but many others traveled for various reasons among them explorations of peaceful environments to settle in.

The study shows also that modern times 'The Protocols of the Elders of Zion' were brought by forgeries who are in part responsible for Chinese beliefs and perception of the characteristics of the Jews. Those forgeries were disseminated here first by the "White" Russian army during its quest to annex Manchuria into Czarist Russia's empire, then by the "Reds", and later, in the 1900s, by the Japanese and the representatives of Nazi Germany in China.

No new business will come to China because of historical, emotional or nostalgic attachments. Foreign enterprises, among them enterprises owned by Jews, will arrive here because of the incentives that will be offered in order to generate profits. This is the name of the economic game.

Harbin will be an attractive business destination for foreign enterprises because of its resources and incentives and the ability of any new business to be profitable here regardless of who owns it - Christians, Jews, Muslims or atheists.

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 The New York Times Book Review -January 26, 1997, By Peter S. Temes -In "The Moses Mystery," Gary Greenberg, a trial attorney with the Legal Aid Society in New York, holds aloft scattered fragments of archeological findings, along with flat-footed bits of textual analysis, to argue that the Jewish people originated in Africa. He seems to take to heart any bit of evidence supporting his broad thesis, no matter how trivial. He also refers to a longer, unpublished manuscript that presumably holds the answers to many of the questions this book raises but does not satisfy. However, even if his data were expertly handled and convincing, few people would care. Mr. Greenberg's argument is, finally, a quibble, though it pretends to be more. The broad significance of the Bible is not as a detailed historical record, but as an

- embodiment of faith --or faiths. Mr. Greenberg seems to delight in a game of scholarly "gotcha," proving that individual biblical characters couldn't possibly have been in a given place on a given day in an early century, thus overthrowing some obscure thesis hatched by other (generally more credible) scholars. Most readers won't be able to make any connection between these arcana and their own experiences of the Bible. The scholarly audience is likely to reject "The Moses Mystery" for its poor method, while the general reading audience is not likely to make it beyond the first page of argumentative, obscure prose.
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Ming-bian Thinking Trend and Conceptual Thinking

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Abstract: In the Chinese academic history, Ming-bian thinking trend is a flash in the pan, but the value the thoughts left connects with the logical thinking nowadays. Because Ming-bian lacks of concern for reality, Ming schools are disrespected. For their use of bizarre words, consciousness of language phenomenon and the embryo of logic consciousness based on language analysis have been highlighted. Research Ming-bian trend from the logical thinking aspect nowadays, may provide reference for philosophy and logical argument between Chinese and western countries. Ancient Chinese has no grammar consciousness and copula functions, so the proposition rarely has predicate phenomenon and mostly is subject predicate sentence. Therefore, philosophy ontology concept is not derived from the analysis of the language and its main idea is not transferring from cloud predicate form. Although Ming-bian thinking has the analysis of language and concept, there are differences between language cognition and demands, which leads logic tradition presents a splendid sight in the western thought but fading away in Chinese culture.

Key words: ming-bian, be, language analysis, proposition, logic

Introduction

Ming-bian thinking trend appeared in Pre-Qin times with “a Hundred Schools of Thought Contend”, and gradually weakened from Qin-Han dynasty. Although Ming-bian are taken as “wisdom king theory”, its academic interest is different from background of various schools needing to be managed. However it pays much attention on language phenomenon. Ming schools in Pre-Qin times are often reproached, but thanks to the open academic atmosphere, they can survive. Ming schools are very popular in Pre-Qin times. As the historic events, such as political affairs of Qin dynasty and respecting Confucianism, especially after the forming of Confucian Classics, Ming thinking trend disappeared.

If not setting a kind of academic thoughts as a model, thoughts certainly can be argued. The feature of Ming-bian is that it lacks of clear ideas and realistic demands, focuses on sophistry, holds on absurd theory, deviates from experience, but it does not speak carelessly and is based on language argumentation. The clearly ideas of Ming schools reflect the alienation of experience and language logic, or it can say Chinese logic tradition originated from Ming-bian thinking, but this view must be supported by the cultural history.

Image Theory and Hexagrams Theory

Is there logic in china is still in arguing, and modern logic is actually exotic. Whether the Chinese and Western culture can be classified as the differences between imaginal thinking and logical thinking is still a question, but imaginal thinking is the characteristic of Chinese culture. The popular thoughts in Pre-Qin times made improvement and enforcement of language function, then

Ming school developed. In broad sense, Ming school contains Confucianism, Mohism, Taoism and Legalism and so on, which have famous theories separately. Their famous theories mostly construct on the contrast of experience and demands. It is mostly “identity theory” for the form, so which are different from Ming-bian schools that deviate from reality. Because of the rich of language function in Pre-Qin times, simple form of logic is showed. However, academic in Pre-Qin times uphold by Zhou Li and Chinese “Six Arts” (Ceremony, Music, Shoot, Drive, Letter, Arithmetic). Then its culture gene can be traced far before. Imaginal thinking is the manifestation of such historical precipitation. Chou Kung made etiquette and music, then ritual culture was also originated from this time. According to famous scholars such as Wang Guowei, Hou Wailu, ritual culture originates from ritual norms which can be corroborated by archaeological findings. From Zhou dynasty, bronze ware has strict hierarchy to show inscriptions power of “xi tian xi ren” (锡田锡人)、“shou tu shou ming” (受土受民) etc., Zhou Li highlighted in symbolic significance of ritual and etiquette. With distinct characteristics of etiquette of Zhou dynasty, “礼”、“祀”、

“祈”、“祉” are all contains “示” (示) whose meaning is “show, show signs of heaven, show the good and bad to the inquirer”. It can be said that the ritual and sacrifices qualities have clearly symbolic meaning. In the Confucianists, the means of the ceremony show a clear cultural meaning. As the first one of Chinese “Six Arts”, Book of Changes reflects the inheritance of divination civilization more clearly. Although this book is not for divination, its symbol form also has very significant characteristics. It can be seen in “Copula” “Sages see the profound of the world, imitate their images, and do divination to know their nature, principles and

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so on, then it is called Hexagrams” “The characteristics of Book of Changes are hexagrams; hexagrams imitate external image”.

Although copula part in the Book of Changes is later than Gua text, its symbolic meaning really appears in Hexagrams words. Also as Chinese “Six Arts”, there are also strongly symbolic meaning in naming entity of “The Book of Songs” and, emperor’s order of “The Book of History”.

There should be no logic thinking in the primitive form of human thought, and the general concept of logic proposition is very deficient in early human language. “We have new reasons to believe that the logic thinking is generally not abstract as we are accustomed to doing. The condition for abstraction is logic similarity of concept which can let conception combine.” “Principles and methods of the original logic inherent are clearer when generalizing than abstracting.” “General conception but not specific name supporting rational thinking is rather poor in early language. It is impossible to do logical derivation with concept. Imaginal thinking mode should be the general embryo form of human thinking. The first to break the barriers of the human language is Greek philosophy in which language is endowed with the meaning of truth. Language has been beyond the function of the symbol. “The logos remain forever, but people don’t understand it before they hear it or just hear it. All follow these logos, but people are trying to analyze some languages and behaviors so that to definite the relationships between them and logos, which shows no experience.” “Thinking is the biggest advantage, wisdom is to speak the truth, and act according to nature, listen to the natural words.” The meaning of the language is more clearly established by Parmenides of Elea: “It must be those languages that can be spoken and thought existing. It is possible for them to exist, and impossible for non-existence to exist.” “Listen” and “speak” are the means to “logos” and “existence”. This is greatly different from image thinking on visual experience. In general, image thinking lacks of trust in language. For example, Confucius said: “The book is not fully express what the author is going to say, and words can’t express mind, then does the saint’s mind can’t be understood? Saints establish rules of practices to fully express the mind, hoping people to realize their intentions. Therefore, saints set hexagrams to imitate everything in the universe modality, and use diction to express what can’t be expressed. Then, do some changes to make profits. Encourage and boost it to make magical wonders.” From Socrates, the attention Greek philosophy pays to language presents a splendid sight. The necessity of morality needs to be supported by universal significance. Thinking of natural philosophy on the origin of everything is dependent on experience factors, and Ethics is based on the construction of Discourse. Plato’s “image theory” comes from this. The problems of Visible world and intelligible world, specific hexagram and common hexagram and so on are concerned about from then on, which actually show alienation of experience and dependence on language. Aristotle’s Syllogism and category lays the tradition of formal logic and metaphysics, then language become the foundation of the

whole western philosophy.

Contemporary analytic philosophy, phenomenon, various schools of existentialism also take linguistic phenomenon as the cutoff points, their tradition actually can be traced to the same origin. The domain of knowledge established by language referring and thinking is based on Plato’s theory of “phase” which separates experience world and concept world. Image thinking in Chinese culture has a long history, such as “a true word is not beautiful, a beautiful word is not true; kind people don’t argue, arguing people isn’t kind.” “If get meaning, image in no need; if get image, language is no need.” Which performance mentality characteristics stronger and stronger, neglect consciousness and cognitive of logic of language. Image theory always has a great influence on Chinese culture, and become the cultural mainstream gradually. Ming (name) theory fades away as history trend changes, but its academic value can’t be ignored, and provides important reference for understanding western philosophy.

Ming-bian and the Confucian Ethical Code

“The Confucian ethical code” originated from Confucius’ “rectification of names” theory. After Han Wudi (the seventh king of Western Han Dynasty) respecting the Confucianists, “The Confucian ethical code” forms pattern gradually. Although there was reactionary of “opposing the Confucian ethical code, and in favor of nature” in Wei and Jin Dynasties. Some scholars of Buddhism and Taoism may also avoid “The Confucian ethical code”. However, it is a public opinion that “The Confucian ethical code” has deeply shaped people’s spiritual world. The Legal school combined Taoism and Legalists fused into “The Confucian ethical code”. Ming-bian school is hard to find at the end of Pre-Qin times. The basic difference between “Ming-bian” and “the Confucian ethical code” is “confusing names” and “rectification of names”, but Xuncis induced the difference to three situations: “using names to confuse names”, “using entities to confuse names”, “using names to confuse entities”. “Rectification of names” theory is actually for “name and entity”, such as: “After determining the names, people will not compete for things; after belongings clear, people’s desires will not prevail. Why people don’t fight for things, is not because people don’t have hearts for contention, it is because after the names determined, people are unable to compete. Why people’s desires aren’t popular is not because they don’t have desires, it is because their belongings are already clear, they will not be able to implement their desires.”

“To correct wrong position with right position, because wrong position is distrustful. Right position means its name and entity are now in place. If its name and entity are consistent, they are correspondent.”

“King developed names of things, once the name is established, it will be able to distinguish the real things; once the principles for developing names implemented, thinking will be able to communicate; then deliberately led people to use these names.

So, those who separate words and create names without

permission to disrupt the correct names, make people doubt and uncertain, increase people's argue, would be called the most heinous villains "Now the holy emperor died, the management of names was slack; eccentric words produced; correspondence relations between the name and the real thing is very confusing; right and wrong outline aren't clear, even if officials in charge of the testimonies and scholars taught ritual are also confused."

"Rectification of names" theory obviously has their strong realistic concern. The dispute of "name and entity" is not in demands of Natural Science, not in advocating the spirit of universal skepticism, but in managing logos and rules of classifying names, and opposing free thinking like "debate" and "doubt". Ming-bian is opposed by "rectification of names" school, for example, Xuncius said "If different people with different ideas to communicate with each other, and different things let the names and the actual content mess together, then noble and humble social status can't be highly visible, and the sameness and difference of things can't be distinct." It means Ming-bian caused hidden dangers and challenges for strictly regulated names classifying standard. "Being insulted doesn't feel disgrace" and "killing bandit is not killing people" are harmful for "Confucian Ethical Code". Actually, the theories Ming-bian schools hold have evidence at the language level, such as in "Gongsun Longzi", "The Scripture of Mohists", from the nature of language itself, there are evidence for Ming-bian school. However, Mencius and Xunzi refute on language itself not on proposition, or even more there are relevant arguments on famous scholars' propositions but basically limited to internal Ming-bian schools. The standpoint the "Ming-bian" critical thinkers take is avoiding dispute, such as:

"Dishonest utterance is not good, but this is just a small harm. The largest harm is calumny deceiving sage."

"Huan Tuan and Gongsun Long are argumentative persons, confuse other people, change people's mind, can beat people with the tongue, but can't convince the heart of people, this is a limitation of debate persons"

"People who are good at talking about the ancient times must have verification of the modern times; good at talking about heaven, must be fulfilled for the ways of the world. Any comments, like covenant bonds and letter symbols, are valuable, reconcilable, and testable. So, sitting down can talk about it, standing up can arrange for the deployment, and it can be implemented if spread."

"If don't know whether it is right or wrong, measure it with old things, test it with recent things, examine it with a fair perspective, then rumors would cease, evil speech will die."

"If Monarch truly understand the saint spell instead of accommodating secular speech, he will determine the right and wrong in accordance with the name and entity; he will identify remarks according to the authentication."

"For comments, it should converge all aspects. We must measure according to terrain, think referring to times, verify with physical, and analyze adapting to human feelings. If these four

aspects of the case are in line, we can understand the right and wrong" Ming-bian thinking was highly controversial in Pre-Qin times, and the main blame is mainly based on their alienation of "name" and "entity", breaking away from the reference of entity and realistic care, and whether names have their own rationality. The basic characteristics of "Ming-bian" lies on name itself. The priority of language of Chinese culture is to transcend language, such as "if get image, language is no need", "Words don't express all the meaning", "the source of everything in the world can be found, but it isn't eternal", scholar of Metaphysics Bao Jingyan said "Words should express the meaning", but never give language a independent status and it depends on meaning. Ming school is the traditional masters astra of the whole tradition, and the rationality of language itself has been developed unprecedentedly. From the aspect of "logocentrism" of western philosophy, whether there are privities between the thinking ways of China and western countries depends on deeply analyze Ming-bian thinking.

Ming-bian Thinking Under Theory of Knowledge

The current political situation is unstable in the Pre-Qin times, and academic demands are to manage various schools. The goal and interest of Ming school are to "manage logos" reactionary, so there are disputes of "rectification of names" and "confusing names". But the goal and interest of Ming schools are different. Although Yin Wen is originator of Ming school, but in reality its position is similar to Legalists, such as:

"The responsibility of Monarch is to examine the actual entity by name and let name and entity be consistent; the duty of minister is to comply with and publicize the rules."

These are realistic demands of "rectification to name and entity" of Ming school, without dispute purpose. Even there are disputers like Gongsun Long, it is no realistic purpose, such as:

"Wise ancient emperors are all concerns about names and entities and take it as a priority. Examining relations of name and reality fully, naming things carefully."

Ming school appeared in troubled times, so their realistic demands are reasonable. However, the problem need to clarify is so-called "rectification name and entity" and "rules of classifying names", not introspection based on experience and feeling of theory of knowledge. In even can be said that rules of name and entity have limited independent cognitive ability of cognitive subject to some extent, and limited sensory scene and mental space within the framework of classifying names.

From the aspect of cognitive theory, what Ming school wants to explore are the consciousness of language phenomenon and the logic value of the proposition, such as "Ten Paradoxical Propositions" and "Twenty-one Paradoxical Propositions" etc.. Such propositions exist "bizarre words", "obscene words". Because these propositions are in contrast with "managing logos" or experience and the meaning of Ming school propositions are not guaranteed by discourse power but by demonstration of language, the rationality of language itself is the foundation of linguistics and logic nowadays.

1. Ming-bian with or without logic demands

There were lots of disputers in Pre-Qin times, such as Zhang Yi, Su Qin, Mencius, and strategic unite is important for realistic demands, so it needed to analyze gains and losses. Although Mencius use "figurative meaning", figurativeness occupied the high ground of moral, and always used "metaphor", such as "addicted to sunburn", "drinking water", "into the well". He used instinct and intuition as indisputable premise, not logic. Ming-bian lacks of introspection based on human cognitive ability, so there was nothing to command on construction of cognitive theories. However, Ming school is conscious of capturing experience and discourse scene alienation, such as these propositions "white horse is not horse", "white dog is black", "kill bandit is not kill people" that are no ethical and scientific care, but Pure language paradox. These refer to whether Chinese culture has ontology and logic. Greek culture can be a reference Greek philosophy originated from "origination" which is the source of Natural Science. Copula function of Greece makes the problem of "be", then there is ontology. The logic embryonic form syllogism and Parmenides' "be one" and "one be" are all constructed on the truth of language. The division of rationalism and empiricism is from this, and Metaphysics is beginning, such kind of logic can be said as a product of Western Languages. This is the tradition of western philosophical language analysis. Language not only can carry logic truth but also is the most true existence state of human being. It is afraid of that Chinese doesn't carry this for Chinese culture, but even the propositions of Ming-bian schools can't provide the reasons of ontology, whether they can carry the function of language analyzing and initiate logic demands is the expectation. To solve this confusion, face the problem of "be" is a must.

"Be" theory is an important tradition of western philosophy, and etymology can't be ignored. For Parmenides proposed the problem of priority issues of language, "existence" must be implemented in language. Only copula appears in any statements constantly in Greek, thereby there is ontologic perception ontology.

Xiao Qu provided other evidence from other aspect, such as: "White horse is a horse; riding the white horse is riding horse.

Black horse is a horse; riding black horse is riding horse. Servants are human; to love servants is to love human. Slavers are human; to love slavers is to love human. This is 'shi, er, ran' (是而然)situation."

"Servant's parents are human; servant serves her parents is not serve others. Her younger brother is a beauty. She loved her brother is not love beauty. This is 'shi er bu ran' (是而不然)situation."

"Reading is not like books; like reading is like books. To cockfight is not cockfighting; like cockfighting is like cock. This is 'bu shi er ran' (不是而然)situation."

The function of "be" is different from lots of texts in the same period, and shows distinctive characteristics of copula, but it's no need to appear or can't appear in text proposition. So it is called

"hidden copula", such as the propositions "there is no identical standard in this case and in that case; there is no objective wrong and right standard." "Be, or not be" should refer to this, for example, "white horse is horse" is "be", "white horse is not horse" is "not be". Ignoring position of dispute, from language phenomena, why there is no "white horse is horse" refers to "cloud predict". Prediction function of western language is clear, copula is the most obvious signs, then there is category theory. The function of "cloud predict" in ancient Chinese is undertaken by "zhe 者, ye 也", "zhe 者" can be omitted, such as: "Birth is the start of life; death is the end of life."

Such text can convert as copula functions of modern Chinese. Although there is difference of language sense, philosophical connotation is communicated. Compared with "be" theory of western philosophy, there are differences in intension. Taking Aristotle's "Ten category" theory as an example, "human being is animal" is species difference; "human being is rational animal" is definition of the nature of property; "Socrates is running" is a state. Generally speaking, "Ten category" theory is objective description of existence state. Reflection in language is to highlight the main words, furthermore rich knowledge of "people" or "objects". Although the aspect of prediction is different, it expands around the main words. Dispute also can focus on the main words. Parmenides disputes around the possibilities of "one", showing that proposition significance and even the current understanding require certain single value, that is the dialectic of "one". If language wants to express emotion, it needs to exempt discrimination, to confirm the meaning, not to be ambiguous. Therefore, the main word should be definite first. The most common discussion way of Pre-Qin Chinese is so-called "Pente" and "Analogy", such as: "Compasses and colt are the highest standards of square and circle; sage, is the hi Proposition inevitable inference is built on possibility of "be", such as:

"Socrates is a man, Some men are dead, Some Socrates are dead."

This proposition refers to Aristotle's species classification and category theory, which should be pay attention to is that the demands of syllogism is to confirm some certain proposition that is the possibility of "are" in "Some Socrates are dead". This is proposition of "why are". Also, Negative proposition is cared by logic, such as: "Socrates is a man, Only god is immortal, Socrates is not immortal."

For construction of knowledge, the significance of positive proposition is more significant. Therefore, "be" is more universal but "not be" is mostly seen in pseudo-proposition.

"Be" in Pre-Qin times don't have copula function, famous scholars such as Wang Li has proofed it. However, Mo Zhi ghest model of behavior. Want to be a good monarch, the monarch should try to do reach the truth of being monarch; courtiers want to be good courtiers, they must try to do reach truth of being courtiers."

"Yao and Shun (two kings of ancient China) love people

by nature; Tang Wu love people by practicing; five hegemon (five kings of Spring and Autumn Period) love people is by the name under the guise of loving people.”

“Morality is with inside; the obtained gets from the outside.”

Such discourses are the basic reasoning methods in Pre-Qin times, whose rhetorical function is self-evident, but from the aspect of proposition, it is with no understanding core, that is how to grasp the meaning of “one”. Mohist school is also conscious of such language phenomena, such as:

“ To explore everything’s original look, to analyze and compare various remarks.”

“ (When disputing) By category to summarize (fact), by category to infer a conclusion.”

“Mou means two propositions have the same meaning can thus infer to each other.”

“Tang Wu, “Yao and Shun” are all imperial category, “inside and outside” and “square and round” are also a category. So, this kind of discourse must construct “analogy” based on contents to show inherent tension of disputes. What’s more, “analogy” is a general form of theory construction in Pre-Qin times, such as “the source of everything in the world can be found, but it isn’t eternal; every entity can be named, but it isn’t unchanging”, “logos” and “name” have no equal status in Lao Zi’s theory. “logos” is broad and profound, but no “name” of Lao Zi., such as:

“Born property called nature, are all the white things called white?”

“The white color of white feather likes the white of white snow, The white color of white feather likes the white of white jade”

“The nature of dog is like the nature of cattle, is the nature of cattle like the nature of human?.”

From argumentation, there is no need to use parallelism, for the meaning of “The white color of white feather likes the white of white snow”, “the nature of cattle is like the nature of human” are clear. From this, it can be seen that various schools theory reliance on rhetoric and lacks demands of logic. The premise of logic is to definite reference and meaning that is to definite the main words, which can show the real value of prediction that is the focus of “be” or “not be”, then contents and standpoints can be judged. For example, from the judgment of proposition, the above text contains parallelism of predict. Judgment must be on positive or negative respectively, which lead to understanding difficulty. This kind of expression way is not on identity based on judgment, but in rendering effects produced by words, and standpoints and views are also among literary edification. As literature tact, such methods are reasonable, but from theory aspect, it can’t highlight logic truth.

Language forms definitely affect thinking. What Confucius said “Monarch-Subject, father-son” is “analogy”, “Benevolence, righteousness, loyalty and trust” belong to the same “category”. Confucian ethics are difficult to express by the basic theory “How should people be”, but must rely on each other as referring context, such as:

“Gentlemen unite together but never engage in gangs; villains engage in gangs, but never unite.”

“The essence of beneficence is to serve parents; the essence of righteousness is to obey brother.”

How to create such dependable concept and category is the result after focusing on rhetoric not logic. Although Taoism can extract the highest category “Taoism”, its basic understanding is binary mode architecture:

“Because things appear opposite to each other, there is no confrontation between “there be” and “there be not”, hard and easy, long and short, high and low, tone and voice, front and rear. They are contrary but harmony.”

“Cycle motion is the movement of Tao, the role of Tao is subtle, delicate.”

“Real representation may be not pretty, and pretty presentation may be not true; good people may be not good at moral debate and people who are good at moral debate may be not good; people who understand Tao may be not knowledgeable and people who are knowledgeable may not understand Tao “.

Zhuang Zi explains confrontation state of disputes like “right and wrong” “this and that” more clearly, and then confuse right and wrong and even with value nothingness. Such language forms fused with rhetoric and logic ignore language true value and logic true and the inquiry of “be” of language and “one” of proposition.

2. Limitations of language conscious of Ming-bian

Ming-bian is an exception. “Mojing” and “Gongsun Longzi” are mostly not in this framework. Or Ming school has no rhetoric demands absolutely, but solely for defense argument. So Ming school thinks the analyzing form of proposition “white horse is not horse” .is clear, so it can be said that proposition meaning “one” holds. On logic perspective, the proposition value is single, then true and false can be judged. On form aspect, compared with western logic and scientific proposition, there are few positive propositions and many negative propositions. It is contrast to western country’s situation that why Ming schools focus on negative judgment on the significance of expanding of knowledge is contrary to common sense understanding, but consistent with forms of ancient Chinese language. From the common sense, the understanding forms of human beings are mostly “what it is” not “what it is not” that are in favor of construct framework of epistemology. The reason why Ming schools put emphasis on “is” or “is not” is that the lack of copula “be” in grammar. “Why it is” is the source whether on specific proposition or the whole epistemology tradition. Most of the propositions of Ming schools don’t meet with the proposition judgment form that is it can’t explore true value problem. There is no possibility to explore logic in “The largest is not marginal, so it is called biggest one; The smallest is not marginal, so it is called smallest one”, “eggs have hair”, “frog has tail”, “Wheels don’t touch the ground”. Such kind of propositions refer to uncertainty of presentation or concepts allegation, so it also can’t expand proposition analysis. Mohist schools have fully explanation on such

kind of problems, such as “One of the horse’s eyes is small, it is called a horse with a small eye; if the horse’s eyes are big, it can’t be called a big horse; if a cattle has yellow hair, it is called a cattle with yellow hair; if a cattle is hairy; it can’t be called the cattle more.”

Many propositions of Hui Shi and Gongsun Long are rather consistent with debating method of Mohist schools, such as “chicken has three feet” is consistent with “chicken has feet, counted two, two plus one is three, so chicken has three feet”, “white dog is black” is consistent with “The horse’s eyes are big, but not the horse is big”. The methods of such kind of propositions can be summarized as language customary convention that is the existence of things can be seen from multi-dimension. However, naming is only. There must be selection and omission. Language is not possible to fully describe the state of the thing itself, but only show what the person concerns. If ignoring the “present” of language that is the meaning expressed by speaker, but analyzing from the outer form of language, then the meaning can be ambiguous or fragmentary. Western language centrism tradition has quite interpretation on this, until deconstruction overturn the disadvantage of it. Ming-bian schools introspected early for this, such as:

“Take examples as actual argument. Words, the actual things said from mouth.”

That is to say for the demands of dispute to select language dimension, taking language as pure means, ignoring rationality problem of language itself. “say” is only the angle problem, rather than inevitability existence structure of language itself, such as “say name, say size, say reason, say quantity, say it isn’t so, say illness, say cupboard and so on.”. These are self-problem of ancient Chinese, that is lack grammatical rules, like gender, number, case, tense. Language itself can not reflect these differences, such as:

“A horse is horse; two horses are horses. Horse has four legs.

A horse has four legs, but not two horses have fourlegs”

The differences of general name and specific name, and number can’t be reflected in words and language by articles and changes in the number forms, so there are lots of understand of “horse”. From this, Ming-bian schools lack clear thinking care, and only pay attention to the sophistry of diversification of language function. So, the evaluation of Xunzi, Mencius and some other scholars to Ming-bian schools are pertinent. Because in language forms, ancient language lacks grammatical rules in reference, number, tense, which lead to diversification in understanding that is favored by Ming school. “Rectification of names” school is worried about this, but they are unable to create grammatical rules and bring hierarchy into the concept of “signifier”, and Confucian Ethical Code fixed by people, then ethical not logic discourse tradition appeared. However, Ming school has obviously characteristics, such as:

“White horse is not horse”

“Everything is signified, but signifier is not signified.”

“Sheep and cattle which are even hoofed livestock don’t belong to the category of horse which is odd hoofed livestock. Cattle and sheep which are even hoofed livestock don’t belong to the

category of chicken which belongs to category poultry “With green as the background and then painted white to differ from yellow; with white as the background and then painted blue to differ from green.”

“Cattle-horse is not cattle, also not horse; just take one of them can’t be said the same category, take both of them can be said the same category. This is so-called universal love.”

“It is easy to understand cattle is cattle, horse is horse, cattle-horse isn’t cattle, also not horse.”

Why these propositions of Ming-bian school are keen on negative forms, such as “everything is signified” is positive proposition, but why use negative form. Double Negative used to express affirmative proposition in ancient Chinese are common, such as:

“If there are no modal, there will be no me; but if there is no me, there will be no subject to change a variety of modality.”

“Only virtuous monarch can guide people; monarch can’t survive without people.”

This kind of language form can use “just”(唯) sentence pattern to convert, but there are two difficulties. One, meaning is proximate; second, the possibility of the language, which is the basic problem. “Only virtuous monarch can guide people; monarch can’t survive without people.” is tentatively feasible, but propositions deep philosophy problems care like “If there are no modal, there will be no me; but if there is no me, there will be no subject to change a variety of modality.” and “everything is signified” are difficult to convert. Buddhist sayings like “fei xiang fei fei xiang”(The highest level inside the Three Realms) “非想非非想”, “feiyou fei fei you” “非有非非有” totally can’t convert. Buddhist is to “repair empty, broke already have”, so it must avoid the inevitable “existence”, then it should avoid positive prediction to avoid “the persistent”. Sanskrit can do positive conversion, because the Indo-European language family contains copula form. Language barrier of “everything is signified” is like this. If convert “everything is signifier” facing meaning addition of “is” is a must, like “if there is a white horse, there is horse; if there is a white horse, can we say there is a yellow horse?”. “Name doesn’t reflect specific character of things, but it reflects the essence (common character) of things; Common character is not equal to specific character, so common name is not equal to specific character of things.” from which differences between “is” and “say” highlighted by disputers can be seen clearly. It is also not suitable for “为” as a copula in this sentence, so as it in “everything is signifier”, because “be” is not a copula here. From “使白马乃马也”, “乃” is more suitable than “是”. but the understanding of “乃” has willingness color and can’t express object meaning. Inferring from prevailing language habits of that time, the suitable sentence pattern should be “things, signified (物, 指也), such as “white horse is horse” and “black horse is horse” but which can’t be seen as proposition, because there is no copula to connect subject and predicate. Then, it can be said that it is difficult to express positive prediction of general proposition with ancient Chinese forms. Because of the lack of

copula to connect, the whole “category” theory “why it is” can’t stand. Like the proposition “white horse is not horse”, Both sides of disputing convert from “horse is named from shape”, “there is a white horse”, “seeking horse”, “using horse” to “there is a white horse” in different context.

Just like the forms of “words, the actual things said from mouth” summarized in Mojing is just the skills of “say there be”, there are no care like “why it is a horse”, “why it is a white horse”. Taking “horse” as signifier of “naming shape”, but there is no possibility of common definition “horse”, no research on essential attributes of horse. It means “white horse is horse; riding white horse is riding horse”. From this perspective, “white Horse” and “horse” can be with species interpretation, it also can be called as common sense thinking today. Although “Carriage is made from wood; riding carriage is not riding wood” don’t belong to this category, it can be understood from material. If so, there will be no clear alienation for scope of category thinking. Reading is not like books; like reading is like books. To cockfight is not cockfighting; like cockfighting is like cock. are totally not in understanding framework of category.” Reading” and “cockfighting don’t refer to entities.” Reading is not like books”, “to cockfight is not cockfighting” are not possible within the linguistic analysis and common sense understanding. Why there is dispute of “bu shi er ran” (不是而然). Although negative on argumentation, “reading books are books” and “cockfighting is cock” on rational thinking level are possible. This is the characteristic of Ming-bian thinking.

“Horse is named from shape, and white horse is named from its color. Named from color is different from named from shape. So, white horse is not horse”.

“If there is white horse, there is horse, why if white, it is not horse?”

Although the two sides have different argument “on white horse”, there is a common platform for their thoughts, which is similar to “reading books are books” and “cockfighting is cock”..Aside ontological care, exploring logic possibility with language itself, the possible conclusion of “named from color is different from named from shape” is “white horse is not horse”, why there is “white horse is not horse”. Similarly, “white horse is horse” can get from “possessing white horse is possessing horse”. Why there is “white”? This is concrete context of Ming-bian, and is unknown. Two dimensions understand by Ming school. One, there are ontology meaning; two, there are signified meaning of conceptual naming which hides in language. “White horse is named from its color”. Although it can only express the meaning “white” from conceptual signified, the existence of horse is established before, which it denies is not the existence of “white horse” and “horse” but “white horse” is not “horse” that means “color” is not “shape”. “There is” in the aspect of “if there is white horse, there is horse” is from the existence that is the meaning of ontology, but existence is not in the category of “color”. Therefore, “There is white horse” only means “the existence of horse”, and

“white” can be included in signified of “white horse” that is the conceptual reference is “white”, the conceptual reference of “There is white horse” is “horse”. Similarly, they are understanding differences in “Ma zhe” (马者), “is horse” (为马), “say (called) horse” (谓马), in which philosophy meaning hide. Just because the conceptual reference of “white horse” is only “white”. Later “white horse is called from its white color”, it can proof that “white horse” focuses on “white”. If say “white horse” is “horse”, “white” should be abandoned. “Consider there is white horse, it can’t be said there is no horse; it’s just called when abandoned white color. However, white horse is a concept combined with horse. So, the concept white horse can’t be called horse. So, consider there is horse, just consider there is horse shape, can’t call there is white horse as there is horse. So, the concept horse, can’t be any specific horse with color.” “Say” is the meaning of language lies. “There is white horse” means “there is horse”, so it can’t say “there is no horse”.

Just because of the existence theory of “there be” is separates from the meaning of “white” that is “called abandon white”. Similarly, there are two dimensions of the conception horse that are “existence” and “reference”. From the aspect of “reference”, “horse” is “named from shape”, because “shape” and “color” are correspondent. So “white horse” focuses on “white” and “concept horse” focuses on “horse”. This is symmetry of language function of conceptual reference. So the conception “horse” has two dimensions “there is horse” and “concept horse”. If “horse” take the defined function, “there is white horse” and “there is horse” both are meaningful, if there is no defined function of “there be”, then “horse” focuses on “shape” and “white” focuses on “color”, and “white horse” focuses on “color”. If distinguish strictly, “white horse” focuses on “color”, but “color” isn’t a existence dimension, so “there is white horse” isn’t equal to “there is horse”, which means “there be” and “color” can’t exist at the same time. Therefore, “if there is horse, there is horse; if there is white horse, there is not horse.” “There be” is to highlight the existence, actually “horse” can express the meaning of “there is horse”. If the conception refers in concrete text, “horse” also represents “shape”, “the shape of horse” is “horse”, “the color of horse” is “white”. From this, “white horse is not horse” should be “white horse is not horse” “white horse is not concept horse”, obviously, it is no need to do so. From language habits, if highlight “horse” is “named by shape”, using “horse” is enough. “so, there is horse” refers to the truth of existence. “It can’t be called concept horse” refers to language habits. There are clearly definition between “is” (为) and “say (call)” (谓). “reading books are not books” and “cockfighting is not cock” contain the same sense “reading books” focuses on “reading”, “cockfighting” focuses on “fighting”, both put emphasis on use, “book” and “cock” focuses on “shape”. “use is not shape” is similar to “color is not shape” that is from the aspect of language reference. There is no ontology meaning of the genus difference hold by Aristotle, and it is pure language analysis. The propositions really close to natural classification should be propositions like “Sheep and

cattle which are even hooved livestock don't belong to the category of horse which is odd hooved livestock" and "Cattle and sheep which are even hooved livestock don't belong to the category of chicken which belongs to category poultry", but sheep and cattle have horns and horse doesn't have horns; horse has tail but sheep and cattle don't have tail and cattle and sheep have five feet and cock has three feet", although it may be the meaning based on the natural traits to classify the natural world, it didn't develop and improve "category name" to from the construction of science. For example "It is easy to understand cattle is cattle, horse is horse, cattle-horse isn't cattle, also not horse." "Cattle and horse" can be the same category, it is a pity that Ming-bian only interested in language paradox, lacks enthusiasm in differences among natural traits "Man is a rational animal", "Citizens have political rights", "Property rights are fundamental rights of citizens". Such values built entirely on the basis of universal significance. Science expression needs the help of "be" pattern. "Plants are composed of cells," "molecule is made up of atoms" It can be said many aspects of modern civilization are based on thinking inspired by ontology of "be". It is difficult to construct knowledge framework by "not be" theory. Beside "people convinced from tongue" whether they can be "convinced from heart" lacks basic demands of objective fact. Its sharp language introspection is unable to face strong ethical discourse and eventually disappeared in the stage of history. Western philosophy is ontology consciousness inspired by language phenomenon of "be". Since modern times, a wide variety of knowledge systems have been constructed. During the whole development, "why it is" guides people to be enthusiastic in psychology, logic and even the natural science, from which huge returns are gained. The care Ming-bian trend focuses on language phenomenon, lacks real exploring spirit, so it has been ignored in history. However, "be" theory develops in Chinese language as culture communication, just like "Universe is my heart", "right and wrong is just likes and dislikes" which is only the understanding in intent areas, no possibility of construction. It can be even said that "be" lacks of consciousness, ignoring the existence problem of human being. The language analysis and ontological tradition stretches far by the Greek philosophy. Analytic philosophy and existentialism are also within this field of view. Even the complicated system architecture

of German classical philosophy also takes Language analysis and etymology as a cut. The centrality of the language is always unshakable. Although Ming-bian has the embryo of language conscientious, Ming schools don't take exploring "truth" as the end result of language. Since Qin-Han dynasty, as a means of literary expression, language has been upgrading, image theory is also becoming scale. Logical analysis and metaphysics based on the language means are more alienated from Chinese culture. It is not the fault of Ming school, but there is conceptual dispute, no characteristics of logic, which ruins this language doctrine inadvertently.

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On the Split Personalities of the Main Characters in the Picture of Dorian Gray

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Abstract: The three male characters in *The Picture of Dorian Gray* represent three totally different personalities, corresponding the id, ego and superego in Freud's psychological theory. Dorian Gray, attracted by the voluptuous life of the upper society, pursues pleasure regardless of the limitation of social morality. He embodies the id which operates according to the pleasure principle; Lord Henry, the advocate of hedonism, is the incarnation of the ego which functions with the rational part of mind and operates according to the reality principle; Basil operates according to the moral principle, as the epitome of the superego which superintends and standardizes people's behavior. The thesis tends to analyze the split personalities of the three characters from the perspective of Freud's theory of psychoanalysis.

Key words: oscar Wilde, freud, ego, id, super-ego

Introduction

Oscar Wilde is a controversial writer in the history of English literature. *The Picture of Dorian Gray* was known as the 'immoral monster' in a long time because of the hint of homosexuality and immoral crimes, which are opposite to the rigorous and conservative social morality of the Victorian era. But today, the pluralistic social value system gives a proper evaluation to Oscar Wilde, which enables us to stand in the fair and objective aesthetic position to reread *The Picture of Dorian Gray*.

During the 20th century, Sigmund Freud (1962) proposed that the human psyche could be divided into three parts: Id, ego and super-ego. He discussed this model in the 1920 essay *Beyond the Pleasure Principle*, and fully elaborated upon it in *The Ego and the Id*.

There is a linkage between the main characters in the novel and the three terms of Freud's theory. By analyzing the personalities of the three main characters with the psychoanalysis, we can find that the novel is to some extent like a biography of Oscar Wilde, and the personalities of the three characters are actually the split of the author's own personality.

The Psychological Foundation of Oscar Wilde's Aestheticism

Oscar Wilde is no doubt a versatile writer in English literature. He is well known for his aesthetic ideas and his aesthetic way of life. However, he is such a complicated writer that even after one hundred years since he died, Oscar Wilde still remains one of the most controversial writers in the literary circle. To know better about the factors that contributes to the split of Wilde's personality, I have to mention the life background of the author.

Oscar Wilde was an Irish poet, dramatist, novelist, essayist and critic. He was the chief advocate of the aesthetic movement which based on the principle of 'art for art's sake'. He was born on October

16, 1854 in Dublin. Oscar Wilde received his early education at the Trinity College, Dublin. As a teenager he was exposed to the brilliant talk of the brilliant literary talk of the day at his mother's Dublin salon. He entered Magdalen College, Oxford in 1874. During his college life, Oscar Wilde proved himself to be a splendid classicist under the influence of his two tutors, John Ruskin and Walter Pater. The latter was an important precursor of aestheticism in British. As a spokesman for aestheticism, he tried his hand at various literary activities: he published a book of poems, lectured in the United States and Canada on the new "English Renaissance in Art", and then returned to London where he worked prolifically as a journalist. Known for his biting wit, flamboyant dress and glittering conversation, Wilde became one of the best-known writers of his day.

When Wilde rose to the summit of his fame as a poet, critic, playwright and novelist in the late 19th century, he was charged of indecency in one of the most sensational court trails of the century. In 1891 Oscar met Lord Alfred Douglas, who immediately became an intimate friend to him; they made a noticeable appearance in front of the British upper-class with their intimate relationship and luxurious way of life. In 1895, Oscar found a card of Queensberry, father of Douglas, on which were written, 'To Oscar Wilde, posing Sodomite'. Wilde applied for evidence for Queensberry's arrest, for publishing a libel. On April 5, Queensberry was acquitted and Wilde was arrested. Afterwards he was convicted of indecency and was sentenced to two years' imprisonment with hard labor. He was released from prison on May 19. Financially bankrupted and spiritually depressed; Oscar Wilde went to Paris and spent the rest of his life there. He was converted to Roman Catholicism before his died of meningitis on November 30, 1900.

The contradiction of the ego, id and superego exists throughout Oscar's lifetime. On the one hand, it is his id that guides him to promote the slogan that art has nothing to do with morality. On the

other hand, his superego expresses his sincere care about the human morality. The death of Dorian and the eternal of the picture in the end demonstrates his hope that the superego can finally defeat the id.

Freud's Psychological Theory Reflected in the Picture of Dorian Gray

1. Three Elements of Personalities in Freudian Psychoanalytic Theory

According to the psychoanalyst Sigmund Freud's structural theory, the id, ego and superego are three divisions of personality.

The id is fully unconscious, it consists of instincts and works according to the pleasure principle, which means it always looks for pleasure and avoids pain. The popular interpretation of the id is not that it convinces the mind to neglect the social criterion, but in itself just doesn't take the social criterion into account when thinking or acting. In Freud's words, the id is 'a chaos, a cauldron of seething excitement with no organization and no unified will, only an impulsion to obtain satisfaction for the instinctual needs, in accordance with the pleasure principle'. It is the primitive mind, containing all the basic needs and feelings, so that its main motive is self-survival and pursuing whatever necessary to achieve the goal. When the id is too strong, it makes one bound up in self-gratification and uncaring to others. We can immediately connect it with Dorian's experience. As an innocent young man at first and as a murderer in the end, the development of Dorian's consciousness well exemplified the features of the id.

The ego is mostly conscious; it forms as children experience the requirements and constraints of reality. It has various of meanings, it can mean someone's self-esteem, an inflated sense of self-value, or in philosophical terms, one's self. Freud associated the word with a set of psychological functions, such as judgment, reality-testing, control, tolerance, planning, defense, synthesis of information and memory. In Freud's theory, the ego mediates among the id, the superego and the outside world. It follows the reality principle and tries to bring the individual pleasure within the criterion of society. The reality principle weighs the costs and benefits of an action when one is to make a decision. The ego tries to meet the id's desires in a realistic and socially proper way. It shows the need for compromise and negotiation between the id and the superego, so its task is to make a balance between inner desires, morals and reality while satisfying the id and the superego. It is the rational self and mediates between the id and the superego; therefore it denies both instant and delaying of gratification. If the ego is personified, it will be like a servant of three masters, who are the id, the superego and the external world. It must do its best to meet all their demands, so that it is constantly confronted with the danger of causing discontent on two other sides. In the novel Henry is obviously fonder of staying with Dorian and meeting his pleasure, though he maintains the close friendship with Basil. When the ego is too strong, it makes one extremely rational and efficient, but cold, boring and distant.

The superego tends to in opposition to the desires of the id

because of their conflicting objectives. It acts as the conscious since it maintains our sense of morality and the prohibition of social taboos. It decides whether the id's behavior will abide by moral standards. Freud stated that 'the superego is the representative of all moral restrictions, the advocate of the impulse towards perfection, in short it is as much as we have been able to apprehend psychologically of what people call the higher things in human life.' It becomes an embodiment of parental and social values. The superego constantly struggle for perfection even though the perfection ideal is far from reality. It contains two parts: the ego ideal and conscious. The ego ideal is the rules and standards for good behavior, he conscience is the inner voice that tells us when we have done something wrong. Generally speaking, the ego ideal is what a child's parents approve of while the conscious is all the things that a child feels his parents will disapprove of. In the novel Basil blames Henry for his tempting Dorian to lead a depraved and immoral life, he supervises their actions and does his best to bring Dorian out of Henry's control, so the role that Basil plays just like the superego. When the superego is too strong, it makes one feel guilty all the time, which is the reason why Dorian feels regret and guilty when he finds his portrait becoming uglier after he has done those immoral things.

2. The Relationship of the Id, Ego and Superego

Freud had used an interesting metaphor to exemplify the relationship between the id and ego: the id was like a horse and the ego the rider. The horse provided the energy while the rider decided the direction towards which the horse went. However, the horse would sometimes make its own decision in unfavorable conditions, and then the two fought with each other until one of them gave in.

As we all know, the superego tends to stand in opposition to the desire of the id because of their conflicting objectives, and is aggressive towards the ego. It strives to make the ego acts within idealistic criterion rather than realistic principles. In other words, it acts to perfect and civilize our behavior. The ego, however, controls the id's drive for immediate satisfaction until an appropriate outlet can be found. It tries to make a balance between primitive desire and morality in order to satisfy both the id and the superego. Its main concern is about the individual's safety and allows some of the id's desire to be expressed, but only when the result of these actions are not beyond the borderline of social tolerance.

The Psychological Linkage of the Three characters

Wilde has said that the main characters of *The Picture of Dorian Gray* are the embodiment of himself: 'Basil Hallward is what I think I am, Lord Henry what the world thinks me, Dorian what I would like to be—in other ages, perhaps.' Therefore in a sense we can say that Dorian is the symbol of the id, Henry the ego and Basil the superego.

1. Dorian as the Embodiment of the Id

Wilde says that, 'Dorian Gray is what I would like to be, an eternal youth, one who, at any price, connives to escape moral responsibility. He is the very image of the feckless Irish lad—living

only for the pleasures of the moment, will pay heavily for fecklessness in the end' the description of Wilde about Dorian is similar to the sense of the id. At the beginning of the novel Dorian is a handsome, innocent and gentle youth. Dorian loses his parents in a very young age and is brought up by his chill grandfather. For this reason Dorian learns to be always obedient. Although living in an environment without family member's love may not make Dorian have an inferiority feeling, he does never think highly of himself or realize his beauty. His consciousness of life is like a piece of white paper, ready to be drawn in different colors. It stimulates Henry's and Basil's strong desires to pour color on it. Basil shows Dorian his beauty by painting his portrait, while it's Henry's highly praise and warning that youth passes away like water which makes Dorian feel stunned. Henry describes Dorian as 'some brainless beautiful creature who should be always here in winter when we have no flowers to look at, and always here in summer when we want something to chill our intelligence'. Under the influence of Henry's fascinating words, Dorian happily realizes his beauty, but after a second he is more afraid of the fact that it's doomed to disappear. This thought overwhelms his mind and awakes his internal desire. The suddenly arisen self-protection makes Dorian wish himself to be forever young while the picture bears the passing age instead of him. He feels sad and even angry about the portrait.

For the sake of eternal youth Dorian even implores to sell his soul and make a trade with the devil. Since then Dorian becomes the Faustus longing for youth and begins his life with his soul departing from the body. As Dorian chooses Henry as the one whom he confides himself and gets ready to accept Henry's theory of hedonism, he falls in love with Sybil. The love drives Dorian to change, which makes him no longer the most faithful believer of Henry.

Dorian chooses the 'eternal youth, infinite passion, pleasures subtle and secret, wild joys and wilder sins', he deserts Sybil and is indifferent with her death, he kills Basil when Basil tries to save his soul, he murders Alan Campell and Sybil's brother though not explicitly mentioned in the novel. Dorian is hungry for sensuous delight and goes further on the way of degeneration. He achieves his goal, satisfies his desires, but also he paves the way to his final destruction. According to Freud's theory, the id is the source of all psychic energy and the primary component of personality. It strives for immediately enjoyment and follows the rules of pleasure by instinctive impulse. All the evidence of Dorian's behavior prove that the way Dorian pursues his desires accords with the feature of the id.

2. Henry as the Embodiment of the Ego

As the mentor to guide Dorian towards the way to degeneration, Henry seems to be poisonous and dangerous. He releases the potential consciousness of Dorian and makes him gradually estrange with Basil. He installs his theories into Dorian's mind at all hazards and drives him to be a hedonist.

Henry's epigrams about life rebels the reason, the morality and the social standards. In his point of view, the only purpose of life is

to realize the instinctive demands and satisfy the inner desires. The instinctive demands should not be suppressed. Morality and reason are nothing but morbid and hypocritical ideas. He urges Dorian and other people to embrace the youth and beauty, follow their desire and never be bounded by the ethical burdens.

Henry ridicules the charity, ignores the tribulation and dislikes the social reality. What he promotes is selfishness that draws on advantages and avoids disadvantages. On the one hand, Henry defends the immoral instinctive desire with his epigrams in a jocular style. On the other hand, he gratifies his imagination in the multicolored fancy of words. He stands for the dangerous but necessary factor shadowed in the social morality. His words reveal the inner desire of everyone, though people who are familiar with Henry all consider him as a dangerous and evil man, they still are attracted by his wittiness involuntarily.

However, just like the ego is the inter-medium between the id and superego, Henry stands in to position between Dorian and Basil, neither like Dorian who indulges into the desire, nor like Basil who strictly obey the moral rules. His cynical views of the society are just attitudes and never turn into practice. Even his marriage that he ruthlessly despises all the time, he maintains it carefully until his wife elopes away with another man.

According to Freud's theories, the ego tries to satisfy the id's desires in a realistic and socially proper way; it ensures that the id's impulses obey the criterion of society. Henry teaches Dorian to pursue his desire also by the principle of reality, thus it is acceptable to think Henry represents the ego.

3. Basil as the Embodiment of the Superego

Basil is a painter with good sense, honesty and kindness. He strictly obeys the social rules and always behaves correctly and cautiously. According to Freud's theory, the superego is an embodiment of parental and social values; it is the highest aspect of personality and places restrictions on the id and ego. At the very beginning, Basil warns Dorian not to listen to Henry's words, for he will make bad effects on all his friends. Just like the superego fights with the ego, there is always conflict between Henry and Basil. Henry can't bear the conservation and dull of Basil, Basil dislikes the acerbity in Henry's words. Basil doesn't agree with Henry's hedonism and egoism and tries to persuade him with the moral views and social concepts. He reminds Henry kindly that if one lives only for himself, he will pay a heavy price sooner or later. Though Basil knows exactly what person Henry is, he strangely maintains the friendship with Henry. The relationship between Henry and Basil can be taken as the compromise between the ego and the superego. The sharpest conflict is not between the ego and the superego, but between the superego and the id. Basil feels frustrated and depressed as Dorian indulges in a hedonist life and gradually drifts away from him. He seeks to protect Dorian, continuously defend Dorian even after their relationship has clearly dissolved. On Dorian's falling in love with Sybil, Basil at first take a opposite situation for the reason of social reality, while after he realizes it is true love he turns to bless

their love and advise Dorian to maintain it as possible as he can. After he hears the news of Sybil's death, he thinks that Dorian will be deeply sad and do something reasonable such as console Sybil's mother so he rushes to comfort Dorian, only to find that Dorian goes on his depraved life just like nothing has happened. Conscience, morality and principles lead the predominant position in his mind, Basil stands for the conscience in the story, actually in the novel he is the only voice of morality. In the quarrel between Dorian and Basil, Basil makes compromises again and again, he doesn't have the heart to blame Dorian too hard.

Basil is the only person who can save Dorian's soul, while Dorian refuses the only way of salvation. In the battle superego and id, superego is doomed to lose. Finally, the conflict between Dorian and Basil develops to its climax and Basil is killed by Dorian, which suggests that the superego is totally defeated by the id.

4. Interaction of the Split Personalities of the Characters

Wilde once said he would like to be the person like Dorian Gray. It's true that the character contains the qualities that Wilde was always longing for, such as the beauty, the youth, and the keen desire for freedom. It was because of his beauty that made him achieve the summit of career, while it was also because of that he went to the bottom of his life. Dorian Gray can be taken as the symbol of Wilde's id, which operates according to the pleasure principle and is the source of instinctive desires. The id will do anything to eradicate the obstacle in the way of pursuing pleasure.

However, no one will infinitely indulge the id, thus comes the superego that stands in opposition to the desire of id and works to suppress all unacceptable urges of the id. The superego acts to perfect and civilize our behavior. It holds all our internalized moral standards that we acquire from the society. Basil acts as Wilde's superego, he tried to prevent Dorian from degrading but in vain. He was even killed by Dorian in the end. It seems that the conflict between the id and the superego is too sharp that neither of the two will make compromise. Therefore it needs the ego to mediate.

The ego has to mediate between the demands of the id and the superego. It operates according to the reality principle. Its task is to find a balance between the primitive drives, morals and reality while satisfying both the id and the superego. Lord Henry is the one who connects Dorian and Basil. Dorian believes in nobody but Henry, and Basil has hardly any friend but him. Freud stated that a person with good ego strength was able to relieve these pressures, while those with too much or too little ego strength becoming either too unyielding or too disrupting. Henry was not a person with strong personality, he was weak and contradictory, so he could do nothing

good to the relationship between Dorian and Basil.

To sum up, Wilde is by no means as immoral as people in his time thought to be. On contrary, the paradox of his words and acts, the struggle between his id and superego, and his compromise all reflect his moral part.

Conclusion

As a staunch promoter of the aesthetic movement during the late nineteenth century, Oscar Wilde expresses his aesthetic thoughts and theories in his works by a variety of writing techniques, such as epigrams, amusing irony, cynical charm and so on. Especially in his only novel, *The Picture of Dorian Gray*. Wilde merges himself and his aesthetic ideas with the three characters involved in the novel, which makes the novel somewhat like the biography of himself.

Dorian is the prototype of beauty, he pursued an exquisite life and sensuous gratification regardless of the social discipline. He went along his degraded way of pursuing pleasure until he killed himself, thus symbolized the id of Wilde to fulfill his aesthetic dreams. Basil was actually the only voice of morality in the novel; he stood for the conscience and thus symbolized the superego of the author. Although leading a kind of controversial style of life and was criticized by society of his age, Wilde insisted that aesthetic goodness was much higher than the tangible sensual world. Henry despised the social criterion and was scornful of things that were appreciated at that time. Although he seemed to be rebellious in his speech, his behaviors were extraordinarily normal and obedient in his real life, which made Henry symbolize the ego of Wilde. He tried to mediate between Dorian and Basil but didn't help. The three characters interacted and struggled with each other just like the reflection of Wilde's controversial personality.

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Current Situation and Strategy of Cooperative Development of Producer Service Industry between Shenzhen and Hongkong

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Abstract: The cooperative development of the productive service industry between Shenzhen and Hongkong is not only the need to maintain and realize the stable, healthy and fast development of Hongkong’s economy, but also the guide of future development of Shenzhen’s industry and the direction of structural adjustment. Shenzhen and Hongkong’s geographic location, market system, industrial base and established trade partnership net etc. determine the two cities should take service industry, especially productive service industry with the basic position, as the core development direction of the future.

Key words: Shenzhen and Hongkong, productive service industry, cooperative strategy

The Connotation of Productive Service Industry

Machlup first proposed the concept of producer services in 1962. He said, “Productive services are enterprises, non-profit organizations and the government providing services, products and labor mainly to the producer rather than to the end consumer. It is the industry of knowledge production”. Yan Xiaopei et al focus on the actual development of productive services between Guangdong and Hongkong, and made quite a lot of research, Yan Xiaopei thinks that “Productive service industry, is to provide services for the production, business activities and government management rather than directly for individual users of consumer services, which does not directly involved in the production or material transformation, but is indispensable to any industrial production link.” A more unified view of the concept of productive services is: productive service is intermediate inputs of services taken by producer of other goods and services. Corresponding to it, productive service industry is the collection of productive service enterprises.

Since 2000, the original Hongkong and Shenzhen’s “shop in

front and a factory behind” model of cooperation has been difficult to sustain, for the gradual disappearance of market, policy and geographical advantages. In the new century, if Hongkong wants to achieve economic transformation, and Shenzhen wants to achieve basic modernization, the two cities need to accelerate the industrial restructuring and upgrading urgently. Productive service industry is the fundamental strength of the rapid development of service economy, whose importance lies to directly promotion and influence of the efficiency of economic growth; it is necessary and with practical significance for Shenzhen and Hongkong to strengthen cooperation in the production of the service industry.

The productive service industry has been promoting the economic development, which has caused wide attention of various subjects. At present, productive services have become the mainstay industry of many developed countries in the west, but there is no uniform standard for the specific classification of productive services. In accordance with the views of HKTDC, the services sector is divided into four categories, as shown in table 1.

Table 1 Category of productive service industry of Hongkong

Professional service	Accounting, auditing, legal, consulting, assembly, construction, exploration and measurement
Information and intermediary service	Film, telecommunications, advertising, market research, information technology services, news and publishing industry
financial service	Banking, insurance, venture capital, debt market, fund management
Trade related service	Exhibition, international multimodal transport, import and export trade, industrial inspection and testing, arbitration and mediation

The Current Situation of the Development of Productive Service Industry Between Shenzhen and Hongkong

Development status of productive service in Shenzhen

1. Development speed is rapid; economic scale is huge. In

recent five years (from 2009 to 2013), the increase value of productive service has increased from 305.262 billion yuan to 588.187 billion yuan. If don't consider the factors of price changes, the average annual growth rate reached 23.17%, added value of productive services accounted for third industry increased value and GDP were increased from 69.89%, 37.22% to 71.75%, 40.56%. The development of productive services has greatly promoted the growth of the national economy in Shenzhen.

2. Economic contribution is high; industrial structure is upgraded. Just as Song Yanjun said "From 2005 to 2009, the contribution of productive services development of Shenzhen's economy got a substantial rise, from the previous 22.57% to 70.59%. As of 2009, local GDP increased 7.55%. In the industrial structure, the increased value of traditional production services sector, such as transportation and storage, and the postal industry, accounts for the third industry were down 0.9% and 2.1%, respectively. The increase value of the modern service sector, such as the gold industry, scientific research and technical services, and geological prospecting industry, increased by 1% and 7.1 %, respectively.

3. Opening level is high; cooperation is reinforced between Shenzhen and Hongkong. The actual utilization of foreign investment in productive service industry is increasing. In 2014, the number of new foreign direct investment contract project is 2490, an increase of 21.1% over the previous year. Agreement using foreign investment is US\$10.895 billion, an increase of 62.6%; the actual use of FDI amount of US\$5.805billion, an increase of 6.2%. To the first half of 2014, the total assets of foreign banks in Shenzhen is 332.5 billion yuan; loans is 123 billion yuan; deposit is 198.9 billion yuan. Total book profit is 2 billion yuan, the number of organization and volume of business are in forefront of the domestic cities. As of 2012, there were 188 international well-known logistics providers and 500 multinational companies entered into Shenzhen. Shenzhen attracts FDI by undertaking the international transfer. Shenzhen and Hongkong also opened the varying degrees of cooperation in the

field of accounting, auditing, construction as well as the convention and exhibition industry service.

Development status and features of productive service in Hongkong

To Britain and the United States and other developed countries, the advantages of productive services in Hongkong are mainly represented as root homology of culture, a shared language, and extensive operating experience on the mainland between Hongkong and the mainland; compared with the mainland, the advantages of Hongkong are mainly represented as high internationalization, perfect self regulatory system and high productive service industry. As a service center in the Asia Pacific region, Hongkong's productive services are characterized by the following features:

1. The service sector is complete; the overall competitiveness is strong

Service industry has been the core part of economic development of Hongkong. Since twenty-first century, the service industry in the local GDP has been accounted for a growing trend; the average is over 85% these years. In 2012, the service sector accounted for 93.21%, reached a record high.(see Table 2). Hong Kong focuses on building service industry for a long time. On the basis of the development of intermediary trade, to develop financial services, tourism, trade support services and professional services gradually, and set up service development system covering 29 industries of these four aspects. Productive service is in the leading position, including finance, insurance, logistics, law, accounting and so on, all of which have the international advanced level, successful operation experience, overall strong competitiveness. Take the financial industry as an example, according to 2014 annual "Xinhua•Dow Jones International Financial Center Development Index (IFCD)", Hongkong is the world's fifth largest international financial center, ranked second in Asia. At the same time, Hongkong is Asia's second largest venture capital center and the third largest syndicated loan center.

Table 2 Hongkong's main economic data

Economic activity	2008	2009	2010	2011	2012
GDP (HK\$ billion)	1707.487	1659.245	1776.783	1936.083	2041.945
Agriculture and fishery (HK\$ billion)	0.925	1.090	0.948	0.944	0.947
account for GDP (%)	0.1	0.1	0.1	0.1	0.05
Industry (HK\$ billion)	119.560	114.010	121.427	129.944	137.665
account for GDP (%)	7.00	6.87	6.83	6.71	6.74
Service industry (HK\$ billion)	1499.529	1466.724	1615.373	1771.677	1803.893
account for GDP (%)	92.90	93.03	93.07	93.19	93.21

Note: This table is calculated at current market value

Source: China's third industry statistical yearbook 2013, Hongkong statistical yearbook 2013

2. Service industry is free and open; operation mode connects to the global height

As the world's international metropolis with high freedom, through its geographical location, infrastructure, the island's market environment and human capital of high levels, Hongkong becomes a veritable international service center and operations center of multinational companies in the Asia-Pacific Region. In the current

situation of insufficient resources in the island, Hongkong actively expand the market, providing financing, telecommunications and consulting services to the Chinese mainland and the Asia-Pacific region. Management rules and operation mode of service oriented enterprise connect with standards of the world's advanced regions highly; international service trade is in dominant position (see Table 3). At the same time, in the island's trade and financial liberalization trend, Hongkong has become the world's major source and inflow land of FDI. In 2012, Hongkong's foreign direct investment was

HK\$823.852 billion, the introduction of FDI was HK\$893.865 billion, the net inflow was about HK\$70 billion. As an important foreign supplier in Asia and Mainland China, as of 2012, Hongkong's mainland investment HK\$461.846 billion; at the same time, attracted by Hongkong's sound investment environment, the mainland capital accounted for a large proportion to Hongkong's investment. In 2011, the investment of mainland to Hongkong was amounted to HK\$282.092 billion, accounting for 28% of the total amount of the main source of foreign investment.

Table 3 Hongkong service trade data

Unit: Million (HK\$)

Main service group	2008	2009	2010	2011	2012
Service export	544,358	501,303	625,719	710,716	764,026
Service import	565,389	473,686	546,930	578,035	594,266
Total service trade value	1,109,757	974,989	1,172,649	1,288,751	1,358,292
Total service trade value accounts for GDP (%)	64.99	58.76	66.02	66.62	66.68
Net service export value	-21,041	27,617	78,789	132,681	169,760
Net service export value accounts for GDP (%)	—	1.66	4.44	6.86	8.33

Note: This table is calculated at current prices

Data sources: Hong Kong Statistical Yearbook 2014; as a result of the financial crisis, 2008's net exports of services is negative, so there is no statistical accounting for the proportion of GDP (%)

The Necessity and Reality of Productive Service Industry Cooperative development of Shenzhen and Hong Kong

Necessity

Cooperation of productive service industry in these two cities is formed by Hongkong's pushing force and mainland's pulling force, which is the objective requirement for the depth development of economy of Shenzhen and Hongkong. In recent years, the main factor of local productive service industry transferring is the rising of Hongkong's operating costs. Its advantage in international service pattern is increasingly challenged by Singapore and other countries. Hongkong's service industry chain needs to expand market capacity badly; Shenzhen has advantages in market space. In the process of the service industry system reform, Shenzhen needs a large supply of capital and human resources, and Hongkong happens to make up for the lack of Shenzhen in these areas. After China's accession to the WTO, the demand for productive services of Shenzhen to Hong Kong was gradually increasing, which promoted the rapid growth of the trade and investment activities. The gradual opening of the service market in Shenzhen provides a lot of opportunities for Hongkong businessmen. At the same time, Shenzhen, with its superior geographical conditions, the productive service industry will be the first to be benefited.

Reality

Hongkong as the world's financial, information, business, trade and other services center is located in a metropolitan economic system; it has formed a economic operation mechanism of "internal adaptation, external coordination"; it is the management and coordination center of Multi-National Corporation in Asia-Pacific region. But its narrow market and high service costs are extremely unfavorable to the development of productive service industry. Shenzhen has a number of advantages, such as the market demand, potential and development momentum of the development of productive service industry is large. Since the return of Hongkong, China' WTO accession, Hongkong has vigorously developed high technology productive service industry. Some productive service industries in the low-end of the industry value chain are bound to transfer outward, and Shenzhen the core area of the Pearl River Delta region becomes the first choice. At present, Hongkong has transferred the production, packaging, supply, transportation and warehousing etc. to Shenzhen; only the finance, product development, order receiving etc. remain in Hongkong, to give full play to the advantages of both cities.

Productive Service Cooperative development Strategy of Shenzhen and Hongkong

In the process of promoting the development of productive service industry, Shenzhen and Hongkong should devote to eliminating information asymmetry between the governments, breaking the system barriers, such as get rid of barriers of free flow of talents between Shenzhen and Hongkong; relax access threshold of productive service industry of Hongkong to Shenzhen

appropriately; encourage large multinational companies to set up regional center in Hong Kong; develop Hongkong's "bridgehead" and "catalyst" role vigorously, as a leading role of the transformation of Shenzhen's manufacturing and high technology industries

Financial innovation and cooperation

Shenzhen and Hong Kong's financial innovation and cooperation is a system engineering, not only complex but huge. To do a good job in the project, scientific development view must be followed; overall consideration must be achieved. Only starting from the reality of the two cities, learning from each other, avoiding weaknesses, can the specific difficulties be resolved, and financial cooperation between the two places be deepened.

1. To develop headquarters economy, form the agglomeration effect. Economic development, industry first. The survival and development of financial industry in Shenzhen, as well as financial cooperation between Shenzhen and Hongkong need a strong industrial support. It is necessary for Shenzhen to have a group of enterprise, which can promote financial cooperation of Shenzhen and Hongkong, and attract Hongkong's financial institutions to enter into Shenzhen, so as to form agglomeration effects to make achievements.

2. To construct Qianhai offshore financial center of Shenzhen and Hongkong. Qianhai offshore financial center of Shenzhen and Hongkong is an important breakthrough for promoting speeding development of Hongkong and Shenzhen's international financial center. Once the financial center built, it must become the financial markets docking center of Shenzhen and Hongkong, global financial innovation center, global financial science and technology center, global wealth management center and RMB Offshore Center. From this view, the meaning of speeding up the construction of Qianhai Offshore Financial Center of Shenzhen and Hongkong is self-evident.

3. To seek central policy support actively. In the process to promoting financial innovation of Shenzhen and Hongkong, it is necessary to spare no effort to secure the central policy support, to insist the priority of "pilot", winning the financial cooperation mechanism innovation and financial policies and regulations innovation. For example, approved by the central government, "Qianhai Shenzhen and Hongkong modern service cooperation area planning" provided policy support for financial innovation cooperation of Shenzhen and Hongkong, with milestone meaning to financial innovation of these two places.

Cooperation in modern logistics industry

Logistics information sharing is the key. Logistics information sharing platform must be constructed between Shenzhen and Hongkong, to achieve cross-strait information system docking from a real sense. Shenzhen's information technology develops well. To

make full use of this advantage, customs implement full clearance of whole process electronic pre classification, electronic check etc. Enterprise use computer to share contract data, automatic examination, then removed from the customer's trouble. Therefore, on the basis of the good development of self information platform, Shenzhen and Hongkong realize network integration and data exchange, and work together to build a unified and efficient logistics information platform.

Port cooperation is very important. Shenzhen and Hong Kong can divide the work according to the different service levels and route distribution difference, and partake industry and resource of different levels. In an effort to combine port of Shenzhen and Hongkong, to make it become one of the world's most important port, to realize 1+1>2, forming a mutually beneficial win-win situation.

Logistics personnel exchanges should be strengthened. Talent is the first productivity. High quality logistics practitioners and advanced practical professionals are the key to the development of modern logistics industry. Personnel exchanges between Shenzhen and Hongkong should be strengthened constantly; modern logistics talents should be cultivated by corporation; mutual recognition of academic certificates should be done; to realize talents "invite in, go out" of two places, talent market resources sharing, transfusing more fresh blood for the development of modern logistics industry.

Cooperation in business services such as exhibition, business and tourism

Cooperation in exhibition industry. Hongkong is the famous "exhibition metropolis" of Asian, Shenzhen and the mainland have just begun to do this. Shenzhen's exhibition industry mainly focuses on the mainland, such as typical representatives Hi-tech Fair and ICIF. Cooperation strategy of Shenzhen and Hongkong is jointly starting their exhibition industry; attracting and encouraging foreign investment institutions to hold various types and various levels exhibition in "Shenzhen and Hongkong Exhibition Service Circle". Meanwhile, to further develop and improve the supporting services of the conference and exhibition center, cultivate and strengthen "package of service" chain of exhibition industry including procurement, negotiation, tourism etc.

High-end tourism cooperation. Shenzhen and Hongkong can consider setting up a high level tourism authority by cooperation, discussing cooperation matters regularly; to formulate a strategy for cooperative development, to regulate tourism market jointly, to create "Shenzhen Eastern Gold Coast tourist area"; at the same time, coordination of tourism planning should be strengthened to avoid duplication of construction.

Professional service cooperation

Tang Guoxing once pointed out that "professional service is top

priority for the development of the service industry chain, because it is the best and fastest way to professional knowledge spillover, is the mutual recognition and mutual communication shortcuts in the knowledge level of both places". The professional services cooperation between Shenzhen and Hongkong is giving priority to the development of accounting firms, information services, advisory services, and other intelligent industry, and producer service industry with high added value. The services should focus on small and medium-sized enterprises reform and entering into the international market. What's more, professional service agencies with unified management are needed, to formulate specific professional service industry development plan. Under the premise of not violate the regulations and policies of the state, to speed professional qualification mutual recognition work of Shenzhen and Hongkong, to expand professional communication and cooperation between Shenzhen and Hongkong.

In general, the cooperation productive service industry between the two places must adhere to the development strategy of "open market driven, market guidance, enterprise operation, government support". In the cooperation between Shenzhen and Hongkong, Shenzhen is a window for Hongkong's view of the mainland market and economic dynamics; the productive service industry network between Hongkong and all countries and places can't be replaced by Shenzhen, also the most important relying strength of the development of Shenzhen.

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On Improving Strategy of Urban Cultural Soft Power

——taking Yiyang, Hunan as an example

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Abstract: Soft power of urban culture is an important part of soft power of national culture and also a vital element for enhancing city competitiveness. Nowadays, soft power of Yiyang has get great improvement, but three factors namely idea, system and personnel restrict continous upgrading of soft power of Yiyang. Five measures can be adopted to improve soft power of Yiyang.

Key words: Soft power of urban culture, Yiyang, improving strategy

Introduction

The Eighteenth National Congress of the CPC points out that, to build a well-off society in an all round way, to realize the great rejuvenation of the Chinese nation, we must promote the great development of socialist culture and prosperity. the rise of a new upsurge in the construction of socialist culture, improve the national cultural soft power. This magnificent goal not only provides the policy basis for the improvement of the urban culture soft power, but also puts forward the specific requirements for the promotion of the urban culture soft power.

The Connotation and Manifestation of Urban Culture Soft Power

The concept of “soft power” was first proposed by American international political science expert Joseph Nye in 1990. As an important part of the comprehensive national strength, soft power mainly refers to invisible influences such as appeal based on political system, charisma of cultural value, and affinity of foreign policy. Urban culture soft power is the spiritual power of the city, an important part of city competitiveness, and an invisible influence gathering strength of the whole city, reflecting the quality of the public, attracting other cities.

Hard power mainly refers to economic and military power, which is direct and dominant, while soft power is indirect and invisible. Some influences of a country are reflected as hard power that is forcing other countries accept its influence involuntary through abruptly pressure; some influences are reflected as soft power that is gaining other countries’ acceptance by the charming attraction from spiritual aspect. Obviously, cultural soft power is far more secure, economic and strengthful than money inducements

(carrots policy) and guns (big stick policy). So, cultural soft power is an important part of national soft power. Among the competition of cities, urban cultural soft power is also like this..

The manifestation of urban cultural soft power can be divided into three types: material culture, system culture, and spiritual culture.

The first type is urban material culture, which is reflected by urban planning, urban construction, urban traffic facilities and urban natural landscape. Any specific material phenomenon can make people feel the difference of urban culture. At present, the development of the city has come from the initial functional city stage to the cultural city stage. The culture has become an essential element of the city life. The content of city planning is not only to plan and construct a functional city with beautiful environment, but also to plan and build a cultural city with a strong cultural spirit. As clothing can reflect the different national characteristics, national history, national character, the city’s construction can also show a city’s historical precipitation and cultural characteristics. Economic globalization can make the buildings everywhere more and more modern, but can’t devoid of different nationalities, different urban architectural features, just like different races will have different colors. Different forms of architecture contain a variety of urban culture, which is the soul of the building.

The second type is system culture. Urban system is the institutionalization of urban culture. One result of standardization is a manifestation of urban cultural soft power. Therefore, the change of urban cultural soft power is bound to be reflected by the changes of the various systems of the city. The system culture of the city includes the policies, laws and regulations that are issued and implemented by the urban manager to promote the development of the city. It includes rules and regulations in urban culture, urban economy and urban politics. It is an important invisible force of the

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city to produce the cohesive force to the public and appeal to other cities.

The third type is spiritual culture. The city's spiritual culture is the core of urban culture soft power. The spiritual culture here is basically similar to the concept of narrow sense of culture that is relative to urban material culture, institutional culture, and spiritual culture. It is a comprehensive reflection of the city's historical culture, the architectural style, the pattern, and the quality of the public, the degree of civilization, the value orientation, the moral conduct and the spirit. It is city's economy, policy and culture reflected in spirit area. In the spirit culture of the city, it can be divided into two parts: one part exists in the brain of urban citizens in the form of ideas, mental states, etc.; the other part is spiritual culture manifested by material carrier like cultural sites, cultural products and so on. The former part is specifically manifested in the spirit of the city, the psychology of the people, and the quality of the people; the latter part is the concrete manifestation of the urban historical and cultural heritage, libraries, museums and other public cultural services facilities, art works, audio-visual products, etc.

The Present Situation of Cultural Soft Power of Yiyang

In recent years, Yiyang has vigorously promoted the economic and social progress, and constantly deepen the reform of the cultural system, so as to enhance the cultural soft power of Yiyang. However, Yiyang also encountered a development bottleneck at the same time.

Yiyang' cultural soft power has been greatly improved

First, the construction of cultural facilities has made great progress. In recent years, the intensity of cultural facilities in Yiyang has been further increased, the construction of urban and rural cultural facilities has been greatly improved, the basic cultural network is basically formed. One is the city's major public cultural facilities construction has made a breakthrough progress. A large number of major projects have been completed, such as Xiufeng Park, Hui Long Mountain Buddhist Park, City Museum, City Planning Museum, Municipal Library, the Group Art Museum, the Former Residence of Zhou Libo, Yiyang Grand Theatre and so on. At present, multiple key projects are being included in plan, like the History and Culture Exhibition Hall of Yiyang, New City Group Art Museum, New City Library, Three Zhou and One Ye Museum (Zhou Yang, Zhou Libo, Zhou Gucheng and Ye Zi), Tea Seed Flower (Chazi Hua) Arts College, Qingxi River culture theme park, Lin Fan Art Museum, Yiyang Painting and Calligraphy Institute, Prose Poetry Art Center, Yiyang Huagu Culture Art Base, Freshwater Fish Museum. The other is basic cultural facilities have been greatly improved. In recent years, under the promotion of cultural construction, the construction of basic cultural facilities developed faster, Every counties, villages and towns have built and reconstructed a number of basic cultural facilities. City, county, township and village four levels' public cultural services network has been established.

Second, the total size of the cultural industry has expanded. In

recent years, the cultural industry of Yiyang has been in rapid development period. Data show that in 2009, the cultural industry of Yiyang achieved an increase of 1.417 billion yuan, increased 0.6 billion than that in 2005, accounting for 2.4% of the total production value of Yiyang. In current price, from "Eleventh Five-Year Plan", average annual growth of Yiyang' cultural industry is 14.8%. At the end of 2009, the city's cultural industry unit was 6775 (including self-employed workers), with assets of 4.444 billion yuan. The number of practitioner in Yiyang's cultural industry is up to 31.6 thousand, accounting for 1.3% of the total number of employees in the whole society.

Three factors restrict the continuous upgrading of Yiyang's cultural soft power

First, ideas are not adaptable. There are two kinds of bad tendencies in understanding, in many places and departments of Yiyang. One is the tendency to emphasize hard power but thinking little of soft power. In the work, hard power construction is often accounted, while soft power construction is ignored, economic construction is emphasized, cultural construction is belittled. It is considered that hard power such as economy can be quantized, with comparability, and performance is easy to show; however, soft power such as culture is usually difficult to be quantified by indicators, with little comparability, and performance is not easy to show. From the above, it is thankless to pay attention to the construction of cultural soft power and usually avoid this job. The other tendency is attaching great importance to the recent times, ignoring the long term future. Therefore, there are many people emphasizing the construction of cultural facilities but few people focusing on long-term education which is benefit to future generation.

Second, there are institutional barriers. At present, there are many problems in culture management such as compartmentalization, multiple management, integration of government administration with enterprise, multiple law enforcement in cultural market, ect. This pattern is not rational allocation of cultural resources, and it is easy to cause duplication and waste of human, financial, and material. Most of the state-owned enterprises and institutions are bound by the traditional planning system, which haven't become real market entity, haven't formed the business model that adapt to market economic system, lacking of market awareness. Some nonprofit cultural institutions are overstaffed, lack of incentive mechanism and constraint mechanism in personnel access and cadre promotion, and the performance of the income distribution has not formed yet. These restrict the introduction of public cultural services and outstanding cultural products.

Third, there exists talent shortage. Mainly manifested in the following three aspects: one, there are not many celebrities influential in Hunan province and in all nation, not a group of famous cultural celebrity and cultural leader excellent in both performing skills and moral integrity; second, professional level of

practitioners need to be promoted. Take creative talent for example, Yiyang has proposed to develop electronic animation industry, to establish creative cultural industry park, but lacking of relevant professional talents. Besides, there is large shortage of professional talents in also, drama, restoration of cultural relics, archaeology, mass culture, library management, etc.; third, there are no management talents familiar with development of cultural industry, understanding the law of cultural development, with certain cultural awareness.

Countermeasures and Suggestions to Enhance Yiyang's Culture Soft Power

Enhancing the soft power of urban culture is a difficult and complex system engineering. For the backwardness city Yiyang, the task is more difficult. Urban manager can take five measures to further enhance the cultural soft power of Yiyang.

Firstly, to promote city spirit of Yiyang. The city spirit is the intrinsic cultural connotation and the basic value pursuit of a city. It is a sum, origin from tradition, based on modern cultural ideas and cultural qualities, which is the spirit and charm (characteristic and style) different from other cities. It is spiritual values and common pursuit approved by city citizens. In modern times, city changes with each passing day. City spirit, as a soft power, has become an indispensable element of the city's comprehensive competitiveness, and plays a more and more powerful role in urban development. Currently, Yiyang has started "Provincial Civilized City", "National Sanitary City", "National Forest City", "Provincial Garden City", "Provincial Legal City" (called as five cities Tontrush), bring opportunities and challenges for Yiyang which is full of vitality in a new round of urban development. In this background, modern urban spirit fit for development is needed to lead and inspire cohesive force of the people in Yiyang, to maintain high spirit and the good situation of unity and progress, positive trend of innovation, to provide mental power and intellectual support for promoting a new round development of Yiyang. As the spiritual expression of Yiyang, the eight words "Chong Wen Shang Yi Tongda Chao Yue"(It mens advocating civilization and culture, observing honesty and moral principle, being reasonable and fair, being loath to lag behind etc.) grasp the pulse of the times, reflect the historical tradition of Yiyang respecting culture, treating people with faith, open and reasonable public character, and the lofty aspiration to catch up other cities.

Secondly, to expand public cultural undertakings of Yiyang. The development of cultural undertakings can not only meet the basic cultural needs of the citizens, and protect the basic cultural rights and interests of the public, but also can improve the quality of the public, effectively improve the city's cultural soft power. First is to strengthen the construction of major public cultural engineering and cultural projects. Now, there are not many public cultural facilities in Yiyang. Relatively large cultural facilities are "City Museum", "City Planning Museum", "The First Village of Shan Xiang Changes", "Hui Long Mountain Buddhist Park", "Xiufeng Park", "Cities of Three Kingdoms", which are built last several years.

So, government of Yiyang should increase investment to accomplish the planning that is the construction of major cultural projects, such as "Historical and Cultural Museum of Yiyang", "New City Group Art Museum", "New City Library", "Three Zhou and One Ye Museum". All kinds of cultural infrastructure that have been built should be fully open, to organize various cultural activities, to improve the use efficiency and service level of cultural facilities. Second is to promote the culture of the community, to play the university's role in promoting urban culture, to develop corporate culture, community culture, campus culture, square culture, and actively build a platform for mass culture. Using the unique advantages of university in personnel training, scientific research, and the combination of industry, study and research, to develop promoting effect of the university culture to the city culture. At present, dark tea research base of Hunan City University has began to cooperate with Bai Shaxi tea factory. Cooperation agreement of industry, study and research should be further implemented the to strengthen bilateral communication and cooperation, realize the complementary advantages of dark tea industry and tea research institutions. In addition, the four universities in Yiyang can open public education resources selectively, to achieve resources sharing among the library of university and Yiyang, expanding to advanced culture and patriotism education resources.

Thirdly, to speed up the development of operative culture industry. The developed cultural industry and excellent cultural products can not only enrich people's material life and spiritual life, but also can use its commercial network to spread the city culture more quickly, and accelerate the cultural output and exchange, which can promote the urban culture soft power effectively. According to the development status of Yiyang's cultural soft power and the division of labor of Yiyang in "Hunan 3+5 city group", Yiyang should focus on the development of performing arts, arts and crafts, cultural tourism. Yiyang should deepen cultural institution reform, promote internal mechanism reform of the public welfare cultural institutions, gradually set up "Yiyang Daily Newspaper Group", "Yiyang Radio and Television Media Group", "Book Publishing Group", push Yiyang's drum theatre to the market, develop the way for professional troupes to performance actively in market. It can rely on Hunan Arts and Crafts Vocational College and Hunan City University to construct Hunan art and crafts creative industry park, to develop industrial arts, architectural design and electronic animation industry, to form arts and crafts creative center expanding to all nation through electronic commerce platform. To develop Yiyang cultural tourism, focus on the development of specific cultural tourism products, three major products can be built, namely dark tea cultural tourism products, bamboo culture tourism products, Meishan culture ethnic customs tourism products. Yiyang is the township of dark tea, Anhua dark tea has thousands of years' culture in tea planting, tea making and tea drinking, formed excellent dark tea culture of unique tea ceremony, tea custom, tea fashion, and tea morality. Anhua dark tea is "cultural card" of Yiyang, so it is suitable

to build the brand “green Yiyang, township of dark tea”. Yiyang has the name of “hometown of Chinese bamboo”. There are about a thousand kinds of bamboo in Yiyang Baizhu Park, in which there are many rare and valuable species, providing a beneficial resource for the openness of the bamboo culture tourism. Yiyang is one of the important birthplaces of Meishan culture, where there exist a large number of Meishan cultural and historical sites, historical legends, and national customs. So, Yiyang can optimize the existing cultural ecological park in Meishan, improve the history exhibition of the Meishan culture, folk customs, life experience, Meishan culture food and other related tourism products.

Fourthly, to protect historical and cultural heritage. Yiyang has superior geographical condition, beautiful scenery, such as famous “eight hundred Li (about 248 miles) Dongting lake” and “thousands hectares of Taohuajiang bamboo” which provide unique features of the natural resources of Yiyang’ cultural industry development; then, Yiyang has a long history, known as “culture town”. There are profound “Meishan culture”, poetry and song likely “Taohuajiang beauty nest culture” etc., which are extremely valuable intangible assets for enhancing the cultural soft power. Yiyang is a place propitious for giving birth to great men, with talented people emerging. In ancient times, there was famous Prime Minister Tao Shu of Qing Dynasty, recently there are three Zhous and one Ye, since the contemporary times, Yiyang’s cultural and sports talents are blooming. First, Yiyang should rely on rich historical and cultural resources, and actively declare the national key cultural relics protection units, and strive for an early realization of zero breakthrough of national heritage conservation units. On celebrities and historical site protection and utilization, ancient city of three kingdom, the former residence of Zhou Libo, tea horse road, the ancient Tianwen Pavilion and other cultural heritage’s protection and development should be emphasized. According to the unique geographical position of nearing South Dongting Lake, freshwater fish museum, Dongting Museum with rich regional characteristics can be built. Second, to strengthen the protection of non material heritage. To deal with the dialectical relationship between protection and utilization, it is not only to strengthen the protection of the “city’s memory”, to keep the city’s “context”, but also to develop and use modestly, to strengthen the protection of the heritage by the income of heritage development. Also, national non material cultural heritage dark tea making skills, provincial non material cultural heritage Nanxian flower drum, the characteristics of art represented by Xiao Yu bamboo art, rescue, inheritance and development of folk art should be paid attention to. Third, focus on the the deep integration of protecting material heritage and intangible cultural heritage, realize seamless interfacing. Such as, it can build a dark tea museum near Anhua tea horse road. Some tea set, tea and processing tools can be put in the museum. it can introduce the important role of dark tea in the ancient national economic and cultural exchanges,

and to showcase the unique tea making skills, tea art and other tea culture. In this way, not only can let people appreciate the the last caravan of south and the most complete tea horse road remains, feel the vicissitudes of the Millennium ancient post road, but also can let a person experience the profound traditional culture represented by ancient dark tea making art.

Fifthly, to improve policy support. Cultural policy is the basic content of the reform of the cultural system, but also an important guarantee for the promotion of urban culture soft power. According to the spirit of the party’s Sixth Plenary Session of the Seventeenth Central Committee, 18th CPC National Congress and the central and provincial deployment and requirements, in order to promote the prosperity of cultural undertakings and cultural industry development, combined with the actual development of Yiyang’s cultural construction, Yiyang municipal Party committee and municipal government promulgated two programmatic documents “Decision on the construction of cultural city”, “Implementation plan of Yiyang cultural system reform” in November and December of 2011. “Decision on the construction of cultural city” deploys macroly the upgrading of Yiyang’s culture soft power, from the major significance of promoting the construction of cultural city, overall ideas of strengthening the City by the Culture etc. “Implementation plan of Yiyang cultural system reform” specifically arranges the reform of the cultural system in Yiyang from the seven aspects, but these policies have yet to be further implemented and perfected. The top priority is that Yiyang should use relevant regulations and references of other urban’s experience to formulate “Yiyang Twelfth Five-Year Plan for the development of cultural industr” and “Yiyang medium and long term culture industry development plan”. To provide scientific planning and concrete action route for Yiyang’s cultural industry development. The document should strengthen policy support to the cultural industry in terms of financial investment policy, tax preference policy, investment and financing policy, land policy, talent incentive policy and so on. In addition, to strengthen the comparative study of Yiyang and other urban culture policy, to establish a professional research team, to normalize the gap between Yiyang and other cities in the cultural policy, to reduce the blindness of the development of Yiyang’s culture.

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Higher Education Internationalization from the Perspective of Urban Culture Space: *Exploring New Methods for the Research on and Practice of the Higher Education Internationalization*

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Abstract: Among the researches done in the field of higher education internationalization, little attention is drawn to the “City” and “Culture” which are closely related to it. In actuality, modern cities are the physical environment for higher education internationalization and the development of culture also has a profound influence upon it. The introduction of space theory into this field connects urban culture with higher education internationalization. The researches on the latter from the perspective of the former should at least include the following content: its main elements, dynamic mechanism and historical and cultural values and so on. Such researches have great practical and theoretical significance.

Key words: higher education, internationalization, urban cultural space, interaction

In recent years, with the ongoing economic globalization, higher education internationalization becomes inevitable in order to keep abreast of social progress. Its development, on the one hand, is motivated by economic globalization. On the other hand, it's the corollary of the development of education itself. Through the long-term exploration and accumulation of experience, Chinese higher education has made great progress. It needs and is also qualified to show itself to the world and join in the competition of international higher education. Moreover, with the improvement of living standards, people have stronger financial strength to further their education. The combination of the various advantages is conducive to the rapid development of China's higher education internationalization.

At the same time, the city's speedy development and the extension of its cultural space have provided excellent opportunities for higher education, and its internationalization is just one of them. The interrelationship between these two is very obvious. The city's development has provided enough space for higher education internationalization and in return the latter is the fertile soil for the former.

Therefore, despite the increasing and spreading growth of higher education internationalization, the researches on its theories, especially the theories related to urbanization, are rather scarce, failing to promote its practice. This leads to its lack of direction and erratic development. Thus, it becomes extremely necessary to explore higher education internationalization from the perspective of urban culture.

The Current Status and the Development Direction of the

Researches on the Internationalization of Higher Education

The researches on higher education internationalization have outstanding achievements with its ongoing practice. Many theses have expounded the current status of the researches on the theories of higher education internationalization. “The Research Review of the Internationalization of Higher Education” by Cheng Y. L., “The Research Review of the Internationalization of Higher Education in China” by Kong K. and “The Research Review of the Internationalization of Higher Education in China since the 90s” by Xu J.N. are among them.

From 1994 to 2000, the researches on higher education internationalization mainly focus on the trend of the development, the political and economical stimulus, the introduction of experience from the western developed countries and China's stance and strategies and so on.

In recent years, with China's growing international involvement, the researches on the higher education internationalization made even greater progress than before. Search the key words “the internationalization of higher education” in the CJFD (Chinese Journal Full Texts Database) and there will be 140 articles on the core academic journals concerning this issue. Stepping into the 21st century, the researches in China, besides the above-mentioned aspects, emphasize more on its profound significance, international students, the WTO's influence, international cooperation in education, and the relationship between nationalization and internationalization. Among them, the great majorities of them are about the introduction of policies and experience from the western developed countries and the number of those about its relationship

with WTO is surging. Moreover, heated discussions are provoked by its speeding growth in China, on the relationship between internationalization and localization, internationalization and nationalization, the strong and weak cultures (Xu, 2006).

It's not hard to find that although the researches on higher education internationalization have achieved a lot and is gradually maturing, they have their limitations to a certain extent. There is a researcher who pointed out that researches in this field flourished but they are sparsely valuable, and to some extent, reflect impracticality of educational researches which pursue the so-called hot topics; researches on education internationalization only pay tepid attention, have passive discussions or even cope with issues perfunctorily, lacking in participative attention to the establishment of the principles of the global education interaction; these researches mainly pivot around learning from the educational ideas, systems, curricula and methods abroad and, as a result, neglect the exploration and innovation in China. (Wu, 2004, p.59)

The reason for such a situation is that its researches, more often than not, mainly focus on the superficial phenomena and neglect the specific time, social and cultural environment of its emergence. Gu and Xue (1998) when discussing the direction of the researches on higher education internationalization pointed out two inevitable research objectives, namely, culture or education interaction in the new economic community; the internationalization and localization of educational knowledge. In terms of the specific time, social and cultural environment of the emergence of higher education, the development of economy and education stimulates the formation of urban cultural space and in return the latter become the dynamic for their development. And the interaction of these elements necessarily facilitates the development of social culture and the education internationalization. From this perspective, the research on the interaction between the urban cultural space and higher education internationalization has enormous significance for the exploration of its origination, principles and direction.

1. The Inevitability of the Combination of the Two Research Fields: the Internationalization of Higher Education and the Urban Cultural Space

Although, among the researches already done, there are a few which touches upon issues like "culture" and "nationalization" and so on, the discussions on cultural issues generally are only sparsely dotted among various other issues. For instance, there are researchers, while expounding the significance of higher education, hold the view that higher education should be contextualized and nationalized and refer to the unique features of higher education internationalization in China. The so-called contextualization means that cultural tradition of the country and nation in question should also be emphasized while learning from earlier experience of other

countries in order to innovate and develop independently. The so-called nationalization means that higher education should be aimed at serving its own country and the characteristics and advantages of its own educational tradition should be accentuated (Shu, 1998). These arguments intend to explain the features of the higher education in China through referring to the principles of education itself but never explain how such contextualization and nationalization are formed. And the inevitability of the combination of the two research fields: the internationalization of higher education and urban cultural space is shown through the following points:

1.1 The culture deeply influences the development of higher education

Actually, it is the traditional culture that promotes the contextualization and nationalization of higher education internationalization. There is a kind of latent relationship between culture and higher education. Compared with economical and political elements, the restrictive influence of culture is retarded and not obvious, but long-lasting and far-reaching. The higher education of China is not the product of economic form. Neither can its condition be explained by the restriction of political system. It should be understood through delving into the traditional cultural elements which are deeper and more unnoticeable. (Liu, 1996, p.27)

The influence of the traditional culture is not direct and obvious. Thus, it is often neglected. However, it plays a very important role in the formation and development of the higher education system. In China, our emphasis on higher education and recruitment of students only through unified examination are closely related to our traditional Confucius culture and specific social historical environment. Therefore, it is both theoretically and practically significant to explore culture's influence upon higher education and then figure out the model of interaction between culture and higher education.

1.2 The modern urban culture is the basic survival environment for the internationalization of higher education

The higher education internationalization is accompanied by the modernization of the traditional culture while modern culture, to a certain degree, is produced by modern urban culture.

With the ongoing modernization and urbanization in China, the influence of urban culture starts to manifest itself. The city is the artificial environment for human beings' own existence and development, and its development is not only a process of building physical environment but also a course of accumulating culture. During its evolution and metabolism, the city promotes human beings' interactivities with its accumulated material and cultural resources. "The city is not, in other words, merely a physical mechanism and an artificial construction. It is involved in the vital

processes of the people who compose it; it is a product of nature, and particularly of human nature” (Park, 1967, ix). According to this definition, the city means not only a certain geographical space but also a form of cultural space.

Therefore, on the one hand, higher education internationalization promotes the development of urban culture. Higher education internationalization promotes the communication between teachers and students, the sharing of educational resources, and the consensus on the principles and ideas of education. At the same time, each country starts to draw more attention to the positive effects of the internationalization on education, and try to accelerate the internationalization of economic growth and culture construction mainly through training international talents. The internationalization of education, economy and culture is, in itself, dependent upon that of the city itself. Opportunities of the city’s development are brought by the introduction of advanced educational ideas and the exchange of international talents. In other words, education, city and culture are closely related and interact with each other.

On the one hand, the development of the urban culture necessarily encourages higher education internationalization. The construction of the city has a closer relationship with economic growth. As a representation for the city’s development, urban culture and the city reciprocally promote each others’ development. Higher education as one of the city components is also greatly influenced by urban culture.

Culture is also a method for the control of the city. ...Culture becomes more and more a source of business opportunities ...the consumption of culture and the development of the cultural industry promote the city’s symbolic economy, namely the visible competence of its production of symbol and space”(Bao, 2005, p.107).

The urban culture simultaneously stimulates the development of education internationalization and, to a certain extent, as the city’s spirit and representation, guides the development of higher education.

1.3 The “space” perspective connects the researches on higher education internationalization and those on the urban culture

Currently, the space theory is still inchoate. When the mutual influence between urban culture and higher education internationalization starts to become prominent, the introduction of space theory combines the two research fields effectively combines to do more theoretical explorations.

At the end of the 20th century, the academia has more or less witnessed the conspicuous ‘space turn’, which is regarded as a crucially important event for the development of knowledge and politics during the second half of the 20th century. The scholars

start to have a brand new idea about the ‘spatiality’ of the humanities and they all diverted their former focus on time, history, society and social relationship to the space. (Lu, 2004, p.1)

The researchers on space theories, such as David Harvey, Edward W. Soja, Henri Lefebvre, have explored them from the perspectives of time, space and society, etc. The researches on space theories start to appear for many reasons. Firstly, human existence should have its own spatial dimension and human life have its own spatial organization; secondly, the existence of society and its operation should have its own spatial dimension; thirdly, space is one of the basic categories of thinking and our basic cognitive structure.

The researches on the space theories provide new inspiration for the researches on higher education and urban culture. Higher education is, on the one hand, one of the ways of individual existence and on the other hand one of the forms of the social relationship organization. The international communication among teachers and students, the sharing of educational resources, the exchange of educational ideas and the innovation of the educational models, in whatever form, are social products. Edward W. Soja once said: “Organization of space is a kind of social product – that it arises from purposeful social practice” (1989, p.80). That is to say, space, to a certain degree, has its own independence. Higher education internationalization develops in social space. There is no doubt that in modern society, the city, to a great extent, is the material basis for space. Space most often exists and operates in the form of cities.

The primary problem to be solved concerning the researches on the relationship between higher education internationalization and urban culture is how culture can be introduced into the researches on space theories.

Culture space is symbol space. It is the spatial form built upon human language, representational activities, and concepts of order which is not possessed by the animals. It’s the space of introspection and the symbolization of biological and social space by human beings. However, this kind of symbolized space is not isolated from biological and social space but permeates into it. Human beings’ ideas of space influence their activities and social practice. (Feng, 2008, p.135)

Culture, seen from the perspective of space, is symbol. Everything in the realm of space, including higher education and other human activities, is represented in the cultural space. On the one hand, cultural space is the result of introspection on human activities and on the other hand it directs and influences human activities. From this point of view, higher education is the most suitable representation of this characteristic of cultural space.

The development of modern culture is always combined with

urbanization and internationalization. "The urban culture develops with globalization. The globalization of economy demands that urban culture develops with globalization. And absorption and radiation are two basic ways" (He, n.d.). In other words, higher education internationalization, to a certain degree, is the precondition of and provides energy for the extension of urban cultural space.

Urban cultural space, namely the cultural studies from the perspective of space, is a place which is recognized by most of the residents, occupies certain physical space and embodies urban public culture. It is composed of 3 elements, namely, the "people" as its subjects, the "cultural activities" as its temporal structure node and the "cultural sites" as its spatial structure node (Wang, 2006). Urban cultural space extends incessantly with the globalization of economy and society, extending the subjects of higher education and changing incessantly their living environment, namely the change of the "cultural activities" and "cultural sites".

Therefore, to explore the issue of the interrelationship between the expansion of urban cultural space and higher education internationalization with space theory is an effective method for investigating the latter's cultural essence and also the prerequisite for the research on the development of urban culture itself.

2. The Main Content of the Research on Higher Education Internationalization from the Perspective of Urban Cultural Space

From the perspective of space, the research on urban culture and higher education internationalization should at least include the subjects of urban cultural activities and education internationalization, the influence which the extension of the temporal and spatial dimension of urban culture has upon education internationalization and the reaction of the latter to the former and so on.

2.1 The extension of the subject's dimension in urban cultural space and the alteration of the subject of the internationalization of education

The extension of urban cultural space primarily means the extension of the subjects. The residents are the subjects who occupy urban cultural space and at the same time act as part of the urban cultural landscape. As the physical "human beings", people of diverse age groups, different genders and educational backgrounds make up the city's considerably stable social strata; their daily life forms the backdrop of urban culture; as the social and geographical human beings, the individual is influenced by the city's regulations, customs and social cultural background and his cultural values are integrated into the mainstream culture of the city, which in return have reaction upon the latter, encouraging the development of the city's cultural system. The development of the human beings means the alteration of the educational subject, and to explore the influence

of human beings' life style upon higher education internationalization will have great significance for its development in China.

2.2 The extension of the urban cultural and regional space and the dynamic for education internationalization

Urban cultural space is not an empty thing, "space itself is both a production, shaped through a diverse range of social processes and human interventions, and a force that, in turn, influences, directs and delimits possibilities of action and ways of human being in the world" (Wolfreys, 2002, p.6)[13] Then, it's easy to see that space has a close relationship with social reality and human activities. Henri Lefebvre has also proclaimed, "space is never be empty: it always embodies a meaning." (1991, p.154) With urbanization in China at present, the extension of urban culture space is represented in the following aspects: the first one is the extension of the interaction between human beings and artificial environments; the second is the cultural symbolization of urban architecture space; the third is the changing distance between the country and the city, the cities at home and abroad. The existence of urbanization has provided physical conditions for education internationalization; the extension of the interaction between human beings and artificial environments supplies it with the energy on the basis of its native development; the third aspect is the shortening of physical distance and the widening of psychological distance, which shows the uncertainty of modern society and evokes a sense of insecurity and foreignness. Then, internationalization and localization of higher education becomes inevitable in order to remedy such problems in urban culture.

2.3 The extension of the temporal dimension of urban cultural space and the historical value of education internationalization

The city's modernization and urban culture development represented themselves diachronically. Zygmunt Bauman declared, "The history of time began with modernity. Indeed, modernity is, apart from anything else, perhaps even more than anything else, the history of time: modernity is the time when time has a history" (2000, p.110). The temporal significance of modern urban cultural space lies in the fact that it attains historical power through time. The inception, development and internationalization of higher education in China are just the interpretation on its transference into cultural memories. Just as the city's modernization, higher education internationalization is one of the features of modern education. From this perspective, there is consistency between the higher education internationalization and the extension of urban culture in the temporal dimension. The temporal extension of urban cultural space is represented in two aspects: the first one is in terms of direction, namely, China's transformation from a traditional agricultural culture into a modern urban one; the second one is in terms of standard,

namely, the “speed” of the development of modern urban culture. The instrumental rationality of modern city turns speed into an important representation of time. From this perspective, higher education has played its role as an inheritor of culture through internationalization; the development of higher education internationalization offers an international perspective to the residents and thus provides them a place for psychological repose when they are confronted with the sense of evanescence, pressure, helplessness and hollowness.

Thus, we think that it is of great theoretical and practical significance to do researches on the higher education internationalization with the theory of modern urban cultural space. Theoretically speaking, they are aimed at discovering new theoretical support for the researches on theories of higher education internationalization in the cultural field and attempt to explore its mutual influence and promotion with urban culture; practically speaking, they intend to bring prosperity to urban culture through higher education internationalization, and provide new opportunities for the latter through the extension of urban culture space. And such researches also aspire to adapt higher education internationalization to the globalization of economy and, at the same time, the development of socialist urban culture, which will ultimately promote urbanization and modernization in China. After all, this article only suggests a possible mode of research in order to invite responses of more constructive ideas from other researches.

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The Status Quo of College Students' Social Responsibility Sense in 7 Colleges and Universities in Hunan Province

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Abstract: The status quo and the influencing factors of the social responsibility sense of 1264 college students from 7 colleges and universities in Hunan province were studied by adopting the self-designed "the scale of college students' social responsibility sense". The results show that the social responsibility sense of college students in Hunan province is strong, and, the cognition, identity and action of college students' social responsibility are highly related to each other. Gender and discipline have significant influence on the social responsibility sense of college students. The specific suggestions are given in the forth section, which can provide practical reference for college students' social responsibility education.

Key words: Chinese college students, social responsibility sense, responsibility education

The sense of social responsibility is not only the cognition and special emotional identity of social responsibility of a college student, but also the resolute attitude and responsible action towards the society. College students are an outstanding community in youth. The state of their social responsibility is both directly related to their own healthy growth and future success, and the long-term stability and future destiny of the party and the country. Countries, including China, pay great attention to the cultivation of the sense of social responsibility; the social responsibility of college students is getting persistent focus, which is a hot issue in society and academia. It has important theoretical and practical significance to carry out social responsibility education for college students and promote the ideological and political education in Colleges and universities by objectively evaluating and accurately grasping the current situation of the sense of college students' social responsibility, and putting forward some countermeasures and suggestions.

1. Summaries of related research

1.1 The main measuring instrument of college students' social responsibility sense

Most domestic scholars adopt the combination of questionnaire and interview to survey the status quo and influence factors of social responsibility of college students from higher vocational colleges and the general universities which are different in regions, disciplines and gender, etc.. Some scholars have compiled some questionnaires or scales about the measurement of the sense of college students' social responsibility. For example: Zhao Xingkui (2007) compiled the college students' social responsibility questionnaire; Chen Rong (2013) compiled the evaluation scale of college students' Social Responsibility; Wei Hailing (2014) the scale of development phase of social responsibility. Foreign countries attach great importance to the measurement of the sense of social responsibility, and usually adopt method of case survey, interview, experimentation and behavior observation method, and so on. The

dimension scale of the social responsibility of the MMPI scale in Minnesota, the personality inventory of the social responsibility compiled by Gough H.G., etc., the scale of social responsibility compiled by L. Berkowitz and K. G. Lutterman and so on, are mainly adopted by foreign countries.

1.2 Structure of the sense of college students' social responsibility

Domestic scholars usually classify the sense of social responsibility into several dimensions when they are designing the questionnaire for measuring the sense of college students' social responsibility. For example, Wang Yan (2003) divided the college students' social responsibility into the responsibilities to ourselves, to the family, to others, to the occupation, to the community and the society. There are also scholars studying the sense of responsibility from four aspects: cognition of responsibility, emotion of responsibility, volition of responsibility and behavior of responsibility. For the structure of the sense of responsibility, foreign countries mainly classify it from the sense of responsibility itself and its object. Rachmond (1995) classified it from the international, national and global three dimensions. Costa (1992) argued that the performance of responsibility includes self-confidence, self-discipline, self-improvement, methodization, reliability, braveness in pursuing the things you want, dedication, willingness in helping others, etc.

In summary, the domestic and foreign scholars have made remarkable results in the research of social responsibility. But due to the differences in the social and cultural background of the domestic and foreign scholars, there are distinctions on the study factors and perspectives, so the conclusions also have big differences. And most of the researchers only pay attention to one aspect, so the integrity and the systematicness are not strong. The empirical research on the sense of social responsibility of college students still needs to be carried out systematically and deeply.

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2. Investigation methods

2.1 The object of survey

1400 questionnaires were given out for the survey to college students in Hunan Province, but 1264 of them were eligible. Among them are 44.2% from male, 55.8% from female. According to the majors, the percentage distribution includes 23.2% from engineering, 20.4% from economics, 20.2% from law, 14.9% from management, 12.4% from science, and 8.9% from literature. In terms of grades, the first year, the second year, the third year, and the fourth year are distributed as 48.9%, 26.2%, 18.7%, and 6.2% respectively. In respect of area, cities and villages take 37.9% and 62.1% respectively. According to the level of their senior middle school, 65.7% and 34.3% are from key senior middle schools and general senior middle schools respectively.

2.2 Measuring instrument

The survey adopted “the scale of college students’ social responsibility” which is constituted by modifying the relevant achievements at home and abroad. In respect of its forming angle, the sense of college students’ social responsibility is divided into three links which are the cognition, the identity and the action of social responsibility. The choice of the questions adopted the “Likert scale”. The higher the score is, the stronger the sense of responsibility is. The data statistics show that the coefficient of reliability of the scale is 0.965, and the cumulative total variation of the three links of the questionnaire is 62.794, and the internal consistency coefficients of the three links of social responsibility are 0.928, 0.934, 0.942 respectively, which met the requirements of reliability. The data obtained is counted, analyzed and handled by using SPSS19.0.

3. Analysis of the results

3.1 The formation of the three links of college students’ social responsibility in Hunan Province is related to each other, but there is a significant difference among them.

The relativity of the three links was tested and analyzed, and the results show that the value of r between each two, among cognition, identity and action of social responsibility exceeded 0.68, which indicates that the height between each two of three links are positively related but there is a significant difference with each other in statistics (see Table 1). The results show that the three links are interrelated, influenced and reinforced mutually.

Table 1 Correlation Matrix Among Cognition, Identity and Action of Social Responsibility

forming Links of social responsibility	Cognition	Identity	Action
Cognition	1.000		
Identity	.848** (=.719)	1.000	
Action	.830** (=.689)	.888** (=.786)	1.000

3.2 The sense of social responsibility of college students in Hunan province is at a high level.

In order to make the readers understand more clearly about the situation of college students’ responsibility, we have transferred the scores into percentile system while analyzing the data. The results showed that the average score of college students’ social responsibility in Hunan province was 82.30 (full score is 100 points, the same below). 91.1% of the score is more than 60 points and 68.8% is more than 80 points which show that the overall level of college students’ social responsibility in Hunan province is quite high.

From the three forming links of college students’ social responsibility, the scores of cognition, identity and action of college students’ social responsibility were 81.58, 84.02, 81.62 respectively, which were all in a high level, and among them the score of identity of social responsibility is the highest, the score of cognition and action of social responsibility are lower but almost balanced.

3.3 Analysis of the difference of the influencing factors of social responsibility of college students in Hunan Province

The examination of differences on gender, grade, types of senior high schools, types of the place of domicile of the students when they attended college entrance examination and discipline types of college students was carried out in order to determine whether these factors have a significant impact on the three forming links of social responsibility.

Gender has a significant influence on the cognition and identity of social responsibility and the girls got higher score than boys. The results of the test of independent sample t showed that college students of different gender have a big difference in the cognition and identity of social responsibility ($p < 0.05$). The female students in the cognition of social responsibility ($M = 45.39$) are obviously higher than the boys ($M = 44.21$), and female students in the identity of social responsibility ($M = 38.37$) were higher than boys ($M = 37.10$), too. It indicated that female performs better than male in the cognition and identity of social responsibility. In the link of the action of social responsibility, $P = 0.065 > 0.05$ which did not reach 0.05 conspicuous level shows that there is no significant difference between male and female in the action of social responsibility

The discipline influenced the three links of social responsibility significantly, and the law major students got lower scores. The results show that: in the three forming links of social responsibility, the overall tested F-measures are 4.830 ($p = .000 < .05$), 5.536 ($p = .000 < .05$), and 6.256 ($p = .000 < .05$) respectively and all of them have reached the conspicuous level, which indicates that college students in different disciplines have significant differences in the different forming links of social responsibility. After comparing with the Scheffe, it showed that in the three forming links of social responsibility, the students in law discipline got much lower scores than those in literature, engineering, management.

Grade, types of the place of domicile of the students and types of their senior high schools have no much impact on the three forming links of social responsibility. From the results of Analysis of Variance, in the three forming links of the social responsibility, the F-measures were 1.049 ($p = .370 > .05$), 0.329 ($p = .804 > .05$) and 0.891 ($p = .445 > .05$) respectively, and all of them have reached the

conspicuous level, which indicates that college students from different grades have significant differences in the different forming links of social responsibility. On the three forming links of social responsibility, the T values of types of their senior high schools were -0.309 ($p=.757>.05$), -0.653 ($p=.514>.05$), and -0.923 ($p=.356>.05$) respectively and none of them have reached the conspicuous level. The T values of different places of domicile of the students were -0.725 ($p=.469>.05$), -0.888 ($p=.375>.05$), and 0.292 ($p=.771>.05$) respectively and none of them have reached the conspicuous level. It indicates that college students graduated from different senior high schools and places of domicile have no significant differences in the different forming links of social responsibility.

4. Main conclusions and suggestions

4.1 Main conclusions

First, the cognition, identity and action of social responsibility of college students in Hunan province are positively related between each two, but there is a significant difference among them. The identity of social responsibility plays an intermediary role between the cognition and action of social responsibility. The three are interrelated, mutual influenced and mutual reinforced;

Second, the sense of social responsibility of college students in Hunan province is at a high level. The results showed that the average score of social responsibility of college students in Hunan province was 82.30 (full score is 100 points), which was basically consistent with the positive assessment from the academic community for the mainstream of college students.

Third, there are significant differences in gender and types of discipline about social responsibility among college students in Hunan province. The social responsibility of male students is generally lower than that of female students. And the law students have relatively low sense of social responsibility. Responsibility education should be adapted to the different characteristics of gender and subject types, and be targetedly carried out.

4.2 suggestions

In order to enhance the social responsibility of college students, combined with the above findings, targeted social responsibility education for different types of college students should be adopted.

Through strengthening the cognitive education of social responsibility and using practice to lead, the cognition, identity and action of social responsibility can achieve organic unity. The education of socialist core value system and the education of college students' social responsibility should be effectively combined, which will be the spirit pursuit of the college students internally, and the responsibility which should be borne by college students in their daily life externally. The content of education should meet the reality and needs of students, so that students can correctly understand their social responsibilities, and understand, grasp and fulfill the objectives, principles and methods of social responsibility, and consciously use the socialist core value system to regulate their own behavior. The education should adapt to the characteristics of college students' psychological development, and make them to transfer the moral knowledge into moral beliefs and put into action on the basis of cognition, identity of social responsibility.

For boys, their social responsibility education should be carried out based on the combination of their physical and mental development characteristics. The education system of coordination and interaction of multi subjects which include family, colleges and universities, and society should be constructed. Parents should pay attention to train the children from their childhood to develop a habit of responsible behavior. Colleges and universities should guide them accurately in the class based on boys' characteristics of having the courage to think and act, liking adventure, etc., encourage them to supervise and help each other, and launch some rich and colorful social practice activities and subject educational activities which are fit for boys to make them take responsibility correctly. The society should create a good environment for the students being responsible, and provide the benefit guarantee.

For the law students, social responsibility education should be combined with professional characteristics and curriculum design to carry out social practice activities which is good for students' physical and mental development, and they should be encouraged to use their own advantages to carry out social service activities, such as holding legal lectures voluntarily for residents in housing estates, giving out free handbooks of legal knowledge, etc. free distribution of the legal knowledge, etc.. In practice, the awareness of college students' social service will be improved, and the social responsibility of college students will be enhanced.

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The Professional Competency Evaluation of Graduate Supervisors and Its Improvement Strategy: Based on the Perspective of "Virtual Research Team (VRT)"

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Abstract: The professional competency and the quality that graduate supervisors should have are increasingly challenged with the diversity and fragmentation of knowledge in the "Internet+" era. Based on the perspective of VRT, a dynamic, flexible and collaboration-efficient human resources organizational form, this research points out the problems existing in the professional competency evaluation of graduate supervisors, and then puts forward some relative strategies and suggestions to improve the evaluation system.

Key words: VRT, graduate supervisors, professional competency evaluation, innovation capability

What kind of ability and quality does a qualified and excellent graduate supervisor should have? How to effectively evaluate the professional competency of a graduate supervisor in his working position? How to select, train and motivate the graduate supervisor according to the requirements of graduate supervisor's ability and quality? These above questions have already become the "Achilles' heels" in the management of graduate supervisors in the "Internet+" era, directly affecting the improvement of graduate supervisors' overall level ; Furthermore, since the 1990's, research on the VRT have got more and more attention at home and abroad, and there were successful applications in some areas. It is effective to build the VRT combined with the "Competency Model" of human resources management to evaluate the research level, ability and quality of graduate supervisors scientifically and objectively, to explore a more suitable and effective ways to manage graduate supervisors for college, and to promote the research development with the totally new perspective.

1. The VRT and its characteristics

"No perfect individual, only a perfect team." Personal energy and resources are limited, graduate supervisor usually bear the burden of scientific research and teaching tasks. Therefore, it can be considered to build the VRT combining the virtual team with scientific research. VRT is a kind of dynamic, flexible and collaboration-efficient human resources organizational form centered on project. Put the team construction of graduate supervisors as an example. When there is a project, not the discipline direction but the project itself should be considered, and supervisors of every associated disciplines effectively gathered to complete the project. As cross exists within the theories of many disciplines, and a supervisor can play multiple roles simultaneously, if not, divided

them into respectively fixed teams, their talents certainly wasted, and their knowledge exchange is impeded. Due to the differences of the disciplines, mutual communication between supervisors can promote the disciplines to develop better, not only reducing the cost and waste of resources, but effectively taking full advantages of VRT to make the project get maximum efficiency.

There are the following two relatively salient features in the VRT: (1) Team members are more open. Open virtual team refers to that no limitation for the members into and out of the team, joining into the team as long as interested in the project, and withdrawing at any time. Open virtual team is generally initiated by the core members (organization), other members can join into the team according to their interests. The new information technology application is particularly important because of the uncertainty of the members. It is necessary to provide an open communication platform to facilitate the communication between the core members and others, which generally include journals, online community, newsgroups, opening laboratory, etc.; (2) The information communication mode is determined by the organizational boundary. In terms of communication mode, organizational boundary of the virtual team determines that it must adopt the information communication mode. The first generation of information communication mode is primarily textual, which is a one-to-one communication way among members, relying on the text and data exchange. The second generation of information communication mode is mass text and graphics, which is a many-to-many communication mode among members. Multimedia interactive communication represents the third generation of information communication mode, an integration of a variety of technologies, exchanging the in-depth between members achieved by the remote operation of instant video, voice, image and text.

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2. "Competency Model" and its evaluation

Competency is also called ability of competence, quality of competence or qualification of competence. It was the first time David McClelland, the famous psychologist, Harvard professor and the organizational behavior expert, propose the term "Competency" on his published article "Testing competency rather than intelligence". "Competency" is defined as: It is the personal characteristics which can be used to distinguish the employers' job performance on the organizations. "Competency Model" refers to the sum of the necessary competency characteristics for a specific task. "Iceberg Model" is a generally recognized "Competency Model" at the academia which is proposed by Spencer (1973). Its main idea is that one's capacity structure is like an iceberg floating on the sea, the part above the sea is one's behavior, knowledge, skills and some other external, observable characteristics; The part below the sea is the abilities such as values, attitudes, self-image, personality traits, motives and so on. Among them, the knowledge and skills floating on the sea are the threshold competency, which are explicit surface elements and easy to discover and evaluate; but those social roles, self-concept, personality traits and other elements sinking below the sea are the differentiating competency, which are the in-depth features and difficult to detect and measure, but the key factors that determine a person's behavior and performance.

Based on "Competency Model", Danielson, etc., (1996) put forward 4 dimensions of teachers' competency Model: (1) planning and preparation, (2) teaching environment monitoring, (3) teaching, (4) professional sense of responsibility. Bisschoff & Grobler (1998) has carried on factors exploration for the teachers' competency features in the view of eight aspects including learning environment, teachers' professional commitment, discipline, teaching foundation, teachers' reflection, teacher's cooperation ability, the validity and the leadership, using a structured questionnaire. Hay McBer (2000) put forward "high performance research-typed teachers' model" providing a certain reference for this research on the VRT. It included 5 kinds of characteristics: professional, leadership, thinking, plan/setting expectations, connection with others, among which the last one is the important leading indicator.

3. The problems existing in the professional competency evaluation of college graduate supervisors

In the traditional graduate supervisor's professional competency evaluation system, the evaluation purpose is often for the teachers' academic and technical titles, salary promotion, etc. The evaluation content mainly focuses on the amount and level of teachers' research achievement (for example, the published papers), while the factors such as professional competency, attitude and potential are ignored. In terms of the index selections, either purely quantitative or merely qualitative, which are both too extreme, can't be combined organically. Therefore, there are mainly 3 problems existing in the graduate supervisor's professional competency as follows:

3.1 The wrong evaluation purpose

Currently, the evaluation purpose of graduate supervisor's professional competency is "Ranking" according to the results of quantitative indicators. And the "Ranking" results closely link up with the academic title, selecting the best and salary promotion, etc. The teachers whose evaluation results are good will be rewarded, and the others will be criticized or subjected to financial penalties. The supervisor's development field, advantage and potential are usually paid little attention, and the social responsibility, professional integrity and social conscience are even ignored. It makes the original evaluation purpose as a method of evaluation gradually changed, and the teacher's work all centered on evaluation.

3.2 The alienated evaluation orientation

To cultivate talents and to do scientific research are two main tasks of college. Teaching and research are not contradictory in essence, however, the two tasks are inconsistent in practice. The papers and other scientific research achievements are explicit index while the teaching effect is implicit for college graduate supervisors. The energy is limited, so supervisors pay more attention to the scientific research than teaching for the alienated evaluation orientation. The alienated evaluation orientation reflected in the graduate supervisor's tough evaluation indexes mainly are the amount of papers, monographs and the project. In the evaluation, the evaluators pay more attention to the research achievements and ignore the efforts and work on the teaching process. There is nothing wrong with the emphasis on the research achievement, but overemphasis on it will inevitably affect the teaching quality. In the supervisor's evaluation process, too much emphasis on research achievement indexes not only impact on the academic ethics, discipline education but also mislead supervisors simply to go after scientific research achievements.

3.3 The deviated evaluation standard

Quantitative evaluation and qualitative evaluation are the two different technical methods to effectively evaluate the teachers' professional competency, and only the combination of the two methods can make an objective and fair evaluation because of their own strengths. But there are two extreme situations in reality when evaluate the graduate supervisor's professional competency: One is that everything is measured by quantitative standard, especially for some hardly quantitative evaluation of teachers' comprehensive quality and potential. As a result, appropriate evaluation can't be made. First of all, some factors such as teachers' thought, motivation and emotion are very valuable, if using quantitative indexes to measure them, the teachers will be limited in the range of standard from start, and their teaching innovation and potential also seriously limited; Moreover, excessive quantization for the evaluation urges pushing, blundering academic atmosphere and even results in academic corruption. Scientific research is an accumulative, gradual process and also a creative job, and the limited time will lower the quality of scientific research achievements and the intellectual resources will be wasted seriously. The other extreme situation is

that the evaluation results are influenced by personal factors, so that it is difficult to be totally objective. Qualitative evaluation assumes that evaluators are all objective and fair. The current unsound evaluation system, the imperfect selection mechanism of evaluation experts, the inappropriate evaluation purpose, orientation and standard are the main questions existing in the professional competency evaluation system of graduate supervisors. The professional competency evaluation system of graduate supervisors should pay more attention to the relative stable personality traits related to the job instead of being confined to evaluate the teacher's external performance achievements in a relative short period of time. The evaluation of professional knowledge, teaching and scientific research ability and sense of responsibility and belonging, and their active engagement and communication in scientific research, etc. should be covered too. And due to the diversity and fragmentation of knowledge, it will be conducive to the college graduate supervisors' professional competency development if we further strengthen the construction of VRT.

4. Research on college graduate supervisor's professional competency promotion strategy: based on the perspective of VRT

This study suggests that graduate supervisor's professional competency evaluation and its effective promotion should include the following 5 aspects: (1) supervisor's professional ethics; (2) educational idea; (3) knowledge structure; (4) teaching ability; (5) scientific research and innovation ability. This study attempts to put forward some suggestions to promote college graduate supervisor's professional competency combining the relative concepts of VRT.

4.1 Opening mind, taking variety of measures simultaneously, operating the VRT standardized

Firstly, there is a great difference between the VRT and the traditional research team. Fixed laboratory room and staffing are not existed in VRT. Therefore, building the VRT can be ensured through making use of campus network and technology advantages, using the advanced science and technology as communication platform, as well as improving the comprehensive professional quality of the graduate supervisors.

Secondly, it is essential to choose a person with professional ethics and excellent knowledge structure as the leader of VRT. A charismatic authority figure is important because there is no fixed group and it's difficult to organize the members spontaneously. The leader can make judgments based on the nature of the project and call the related researchers together quickly. Therefore, graduate supervisor's professional competency can be enhanced through the excellent team leaders.

Thirdly, it is necessary to make clear the educational ideas and goals of VRT. Only the specific team goal can promote the members cooperate closely and then give full play to their self-organizing ability. In addition, the clear team goal is the substitute for the leadership in traditional team. Therefore, each team member should

be informed of the team goal and guided consciously for the common consciousness in the early stage of the VRT building. Generally, the cohesion of the team will be enhanced when the goal of the team is recognized by everyone.

Finally, the culture of trust should be established. It is urgent to establish the culture of trust because of the lack of long-term communication inevitably generates misunderstanding within the VRT members which is different from the traditional team. It is necessary to respect the individual and emphasize the role of individual to establish the trust culture. The members should have a strong individual sense of responsibility, namely they must be responsible for their tasks and collaborative team goal consciously. Furthermore, The VRT leader should fully play their leadership ability and keep a close eye on the activities of the team and correct timely the arisen bad behaviors, so as to improve the supervisor's professional competency.

4.2 Cultivating the graduate supervisor's research innovation ability in VRT

As to the graduate supervisor's professional competency, scholars generally believe that one is not only able to integrate the advanced scientific theory and practice, but also develop educational theory and practice; not only form one's own unique practical operation system, teaching ideas or educational philosophy and teaching styles. But the most important is that the supervisors should have innovative sense and capability which can effectively guide postgraduates for academic research.

Firstly, the project orientation in VRT must be "novel". It is necessary to take more emphasis on scientific research and information communication. Excellent graduate supervisor team should be able to grasp the frontier issues of their disciplines, outstand the frontier problems in postgraduate instruction process, encourage postgraduates to attend important academic exchanges meeting, guide them to complete scientific research and publish high quality academic papers on the professional journals by making the best use of the advantage of VRT.

Secondly, the discipline teaching in VRT should be "excellent". Supervisors in the VRT should highlight the "project centered" human resource organizational form which is dynamic, flexible and collaboration-efficient when one guides postgraduates to do the scientific research. The supervisors guide his postgraduates with topic selection of research, systematic data investigation, scientific research methods, research progress, summary of research achievement and papers publication. The whole guidance process must be elaborated and based on the guidance principle of multidisciplinary cross, integration and information communication. Only in this way can make students to study the literatures and theories, capture the frontier research issues and give insights into the nature of innovation.

Thirdly, the learning method in VRT should be "guidance". The supervisors' qualities they should possess apart from strong sense of social responsibility, wide professional knowledge and superb

professional skills, positive attitude toward life, magnanimous mind, and also contains the most important quality—strong sense of innovation. In addition to cultivating the students' perfect ability to analyze and solve problems in academic research, the supervisors should guide them to think independently, and pay more attention to enlighten their creative ability, making the students to obtain high level of scientific research achievement and being high-quality talents in the research field.

Finally, the innovation practice in VRT is to "do". Knowledge is not equal to ability, The methods enhancing the innovation ability of postgraduates, in addition to the correctly theoretical guidance, includes those cultivating students' innovation ability and inspiring their innovative ideas, encouraging students to develop the novel methods and theories and developing their innovative ability of "self-design, free inquiry, do-it-yourself, independent innovation" which are all based on the characteristics of different disciplines.

4.3 Boosting the discipline property by VRT and promoting the graduate supervisor's competency

Compared with the traditional team in real life, VRT has a lot of great advantages: It is built based on the project needs, and its personnel structure can be adjusted according to the encountered problems facing in the process of project. It will be dissolved once at the end of the project, which means it has a great flexibility. In addition, the work style of members in VRT is more flexible because they are no longer limited in laboratory room or office. Furthermore, the boundary of organization is broken, and the external resources can be utilized freely, so the pressure of the internal staff will be reduced. On the basis of above advantages, on the one hand, the organization can be simplified and the framework can be redesigned, and the members are allowed to flow in the right direction. On the other hand, this VRT mode reduces the office costs so as to reduce the school management cost. Moreover, it has the advantage of the intelligence cost. According to the construction and operation of VRT, this totally new mode of research team not only leads the research orientation and expands the research field but also encourages the independent innovative awareness of members. Meanwhile, it also provide a new way for the social science prosperity of Jiangsu University.

5. Conclusions

The disadvantages of VRT can be also found from the extant research achievements, such as the great difficulties of management,

the high risk and the limited technology conditions. But it is easy to overcome these difficulties only if the managers focus on them and improve them. In a word, virtual is the basis of reality and reality is the sublimation of virtual. With the development and improvement of VRT, the effect of the VRT can be approached, the supervisor's professional competency can be enhanced too. Finally, it will pave the way for building scientific research team and center with strong comprehensive strength, to promote the development and prosperity of discipline construction.

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A New View on the Developmental Strategy of the College Culture

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Abstract: Chinese college culture should keep pace with the times and the ideological construction of the college culture also strengthened by the means of the law of ideology. The new concept about the development of the college and the cultivation of talents put forward by Xi Jinping, the general secretary of Communist Party of China (CPC), should be understood and implemented thoroughly. The key strategies of the development of college culture in terms of the construction of material culture, spirit culture, institutional culture and behavioral culture should be grasped in accordance with the rule of higher education development.

Key words: college culture strategy, youth with four qualities, spirit culture

It demands that Chinese college culture keep with the times by following the law of ideology and of the higher education development. The new concepts on the development of colleges and the cultivation of the personnel which are suggested by the general secretary of Xi Jinping should be well digested so as to accelerate the development of and promote the prosperity of the college culture.

Promoting the strategy of culture construction of the college ideology by the application of the law of ideology

Ideology is the discourse system of the common ideal and faith of all members of society which is based on the political goals, value orientation and moral belief of the ruling party who intend to enhance the level of acceptability of people towards its political system, political behavior, political perception and moral system. The ideological security of China is related to the interests and future and the fate of the state, nation as well as people, even each individual. Therefore, it should be appropriately handled and never let down our guard. Unforgettable lessons should be taken, such as the former Soviet where it was only 200,000 members of the Communist Party who had took power from rulers but it was when they had expanded into 20 million members that they lost their power, the lessons of the socialist modernization and of the so called Color Revolution made by the western countries included America who manipulated the ideology as a weapon for a long time. *Xi Jinping, the president of China*, pointed out “the regime collapse tends to start from the ideology. The political turmoil may happen overnight; however, the evolution of thought is a long process. It is easier to break though the defense lines with the breach of the ideological defense line” (Xi, 2014). The present Xi has written a lot of articles related to the ideology in Xi Jinping: The Governance of China, which get closer to the times and reality in a more thorough and accurate manner compared with other similar articles.

China will start to compete for a gold medal in every field in the world power sports as the overall strength of China has been rapidly enhanced with the total GDP getting close to that of America

and Xi, Jinping, the general secretary of CPC, coming up with the great rejuvenation of China with the “Chinese dream” as its core. As a result, American authorities are be sure to try every means to constrain the development of China, of which a crucial way is to promote the universal value, which considers freedom and democracy as its core symbol, as a long-run strategy toward Chinese college students in terms of ideology. Therefore, colleges and universities must grasp the rule of ideology and create a better ideology environment for college students. In modern social political life, it is said that the rule of ideology is that the ideology-dominated people take power of the world while the one who has no ideological discourse power lost their power of world (Su, 2015). Running better colleges and universities requires that the leading thoughts be strengthened and the leadership of the higher education ideology be taken. Lu Keping (2015), the secretary of the Party committee of Xinyang Teachers College, pointed out that we should firmly build a “headquarter” and make a “multiple unit” and develop a strong “main force”, which are all feasible in author’s eyes.

To strengthen the “Headquarter”, it means that leaders in the party committee of higher institutions should be treated as the core of leadership of and the “headquarter” of higher education’s ideology. The trends of the development of ideological culture should be specially grasped in this new complicated situation of ideological field. Leaders in the party committee of higher institutions thus are demanded that they reinforce the political and leadership responsibilities and adhere to the principle of considering the ideological work as the first priority and make every effort to put ideology in practice. Making friends with college students (especially with those who are the network opinion leaders) is one of the most effective ways for the party secretary in each college and university to well deal with the higher education’s ideology. Building a “Multiple Unit” refers that the Party committee, government, labor union, Youth League Committee, colleges and departments, especially the School of Marxism, should form a strong collaborative motive force for the ideology construction though division of labor and cooperation by simulating the principle of driving force scattered

Author: Li Gaojun (male; 1964 -), the associate professor of School of Marxism of Hunan City University, majoring in the teaching and studying on socialist culture with Chinese characteristics.

and collaborated high-speed rail. As to develop a strong “main force”, it requires that the “main force”, consisting of carders of the Party committee, government, labor union, Youth League Committee, the teachers of ideological and political theory and philosophy and social science, counselors, headmasters and psychological counseling teachers, should be reinforced, which is the foundation for taking the ideological leadership of higher institutions. For example, teachers of the ideological and political theory should be assigned to the grass-roots for three month within 5 years to accumulate social experience and teaching materials so as to improve their teaching and educating ability.

Understanding and implementing the new concept of running better universities and cultivating talents put forward by the general secretary Xi, Jinping

Running better colleges and universities

The general secretary of Xi, Jinping said in his book, *Xi, Jinping: The Governance of China*, “there won’t be a second Harvard, Oxford, Stanford, MIT, Cambridge, but there will be the first such Chinese famous universities as Perking University, Tsinghua University, Zhejiang University, Fudan University and Nankai University. We should learn from the experience of advanced running and governance of colleges and universities and pay much attention to follow the laws of education to run colleges and universities in China” (Xi, 2014). His speech is full of national pride, self-esteem in theory, road and culture. Leaders at the higher education party and government levels and teachers and students in higher institutions should be motivated to run and govern better universities with ambitious to pursue excellence. In the regime of Xi, Jinping, the great rejuvenation of Chinese nation is not only “in the period of strategic opportunities” but even in “the final sprint period”. Therefore, college students cannot be lag behind and should be the first movers. Statistics from the Ministry of Education calculated by 2013 shows that there are more than 3,000 colleges and universities in China. To realize the Chinese dream, the great rejuvenation of Chinese nation, it needs the support of talents. So, we should follow the laws of higher education and try our best to run and govern various types of more than 3,000 universities with no one being neglected.

Enriching the connotation of university talent cultivation on the basis of the thought of youth with four qualities put forward by De Xiaoping

The term “youth with four qualities” is the inscription in the magazines of China Youth Newspaper and the Counselor put forward by Deng Xiaoping in May, 26th 1980 who wished all Chinese children to be new generation of people with lofty ideals, moral integrity, good education and a strong sense of discipline. After that, cultivating “youth with four qualities” becomes the common sense of the Party and society as a whole. New requirement are made for the cultivation of “youth with four qualities” of universities when comprehending the new concept of the cultivation of university talents put forward by the general secretary of Xi, Jinping. The author holds the belief that these requirements include lofty ideals, moral integrity, culture and responsibility. College students with lofty ideals means that they work hard to realize their

own dreams in the course of history of striving for the Chinese dream of national prosperity and nation’s rejuvenation and people’s happiness. The general secretary of Xi, Jinping said in earnest that Chinese dream not only belongs to our nation but is more exactly to be the youth generation. The great rejuvenation of Chinese nation will be achieved in the process of continuous struggles of the youth. College students with moral integrity demand that they should initially establish and conduct the socialist core values, the integrity of national morality and individual virtues. The core value emphasized by the general secretary of Xi Jinping is a morality, both the individual and the national morality, which refers to the national morality as well as social morality. A saying goes that a man has no standing room without integrity, while, a country cannot be prosperous without integrity. College students with culture mean that they should be a real master of knowledge and have excellent skills in the molting pot of reform and opening up and the socialist modernization and make efforts to be the backbone of the nation. The general secretary of Xi Jinping highlighted that the youth must be brave to be innovative and creative, as innovation is the progressive soul of a nation, the blossom spring of a country and the most profound endowment of the Chinese nation. College students with a sense of responsibility refer that building a modern socialist country with the characteristics of prosperity, democracy, civilization and harmony is both the goal in their life and their social responsibility. The general secretary of Xi Jinping pointed out, “building a prosperous, democratic, civilized and harmonious modern socialist country is our goal and our responsibility that we take for our Chinese nation, for our predecessor and future generations”. Responsibility is the valid guarantee of realizing the country’s prosperity, rejuvenation of the Chinese nation and people’s happiness and is the essential requirement for the morality of every member of our society. College students, as the men ahead of times, ought to respond to the call of the general secretary of Xi Jinping to allow themselves to have a valuable life. During the final sprint phase of striving for the realization of Chinese dream and under the expectation of Xi Jinping, the general secretary, we have realized that strengthening the cultivation of individual responsibility of college students should play an important role in the program of the cultivation of college talents and the construction of culture of colleges and universities.

Grasping the key of development strategy of college culture in accordance with the law of higher education development

The requirements are made on the review of current strategic environment of the growth of Chinese college culture and on the goal, commission and responsibility of Chinese college culture. In author’s mind, to development Chinese culture, the strategic thought of the development of college culture put forward by the general secretary of Xi Jinping should be seriously understood and thoroughly complemented by grasping the key point of college material culture and spirit culture, system culture and behavior culture, which facilitates not only carry out of traditions but making breakthrough and innovation.

Strengthening the construction of college material culture being always on the way

The investment of Chinese higher education has been growing steadily since in 2012 when the total input of education fees exceeds more than 4 percent of the total volume of GDP. The average allocation for college students has increased significantly and the financial capacities for various kinds of colleges and universities, especially for the “985” and “211” universities, have risen dramatically and the condition for teaching and scientific researches greatly improved. The construction of higher institutions has been promoted through assessments, as a result, the Conditions for running schools have improved. The construction of college material culture will be always on the way and can only be strengthened in accordance with the great goal of Chinese college construction. The fruit of college material culture construction will be engraved at the historical monument of the Chinese dream, like the Yuelu Academy of Hunan University, the library of Perking University and Tsinghua Garden.

Spirit culture being the top priority in the construction of college culture

Spirit culture is the core of college culture. The great course needs great spirit in the great times. Colleges and universities provide models and leaders for society in terms of value and the way of thinking, moral sentiment, aesthetic taste and the national character. The following requirements should be met for strengthening the construction of college and universities spirit culture.

First, the strategy of the development of college students' subjectivity should be made. The first important point of the subjectivity theory of Marxism is to develop the ability of human beings. As Marx (1995) said, the obligation and commission and task of anyone are to fully develop all his own abilities. One of the outstanding achievements in the higher education researches since the implement of reform and opening up for more than three decades is that various educational theories of subjectivity, the excellent educational theory, have been made on the basis of the theory of Marxism in Ethnology, which are genuinely beneficial to college students as a whole. Take “Two-Subject” educational theory for example, it denies considering students as the object in the educational activity and instead emphasizes them as the object, the center of educational activity. The positive subject thought of Confucius is one of important spirit source of the Chinese educational subjectivity theory. The way of the great learning involves manifesting virtue, loving people, and abiding by the highest good. The gentleman's virtue lies in the following aspects: extending to their utmost knowledge through the investigation of things, rectifying their hearts, cultivating themselves, ordering well their countries, regulating their families, making their countries tranquil and happy. There are three immortal: doing a deed of merit, establishing virtues and writing books to expound theories. Four things need doing in one's life that are to ordain conscience for Heaven and Earth, to secure life and fortune for the people, to continue lost teachings for past sages and to establish peace for all future generations. There are five virtues: benevolence, righteousness, manners, wisdom and credit. Books written by Confucius are words of wisdom and it can be firmly consistent with the socialist core values we pursued nowadays as long as be entitled

with times content. The intersubjective philosophy established by the western philosophers such as Husserl has a positive influence on Chinese higher education scholars.

Second, socialist core value should be cultivated and put in practice and moved beyond the western capitalist core values. The theory and practice level of contemporary Chinese socialist core values have beyond the western capitalist core values. Which the Chinese democracy and American democracy is better? Su Changhe, the professor of school of international relations and public affairs of Fudan university, has published an important essay, *The Hope and Future of Democracy Lie in China: On Chinese-styled Democracy and American-styled Democracy*, in *People's Daily, Overseas Edition* in 2014. This essay is beneficial to people in the academic theory of democracy. A convincing conclusion has been made that China is one of a few countries where they really implement the democratic politics and the democratic hope and future lie in China on the basis of rigorous investigation and facts and reasons. With many countries disappointed with the western democracy, American democratic politics itself tends to lose its ideal unless it is reformed. However, Chinese people are full of ideal and hope towards to the Chinese democratic road which is fruitful. Only when faculty and students in colleges and universities put their heart into this article they can enhance their academic quality on democracy and increase their confidence on the fact that socialist democracy beyond the capitalist democracy. Dr. Chen Lin(2015) wrote an essay, *The Definition of Two Types of freedom---the Fundamental Difference between the Freedom of Socialist Core Values and the Freedom of Liberalism*, in *Philosophical Researches in the 4th issue* of 2015, which pointed out the fact though capturing the essence of freedom that capitalist liberation is the formal freedom and resists in substantive freedom while socialist freedom is the one which pursues substantive freedom. The decisive factor of real freedom lies in the constant progress of social productive force which is reiterated by Marxist historical philosophy. These two excellent essays have exposed all lies of the contemporary capitalist ideological weapon: freedom and democracy and reinforced the bright future of socialist core values summarized within 24 words which are advocated by Communist Party of China. Should Faculty and students in higher institutions immerse themselves in these excellent essays, they would be better in the shape of socialist core values.

The cultures and art of higher education should be thrived. The advanced culture is able to meet the needs of beautiful sentiment of human beings and allow people to live a poetic and happy life. Engels once pointed out that it is the pleasure of art that constitute the innermost core of the entertainment of life (Engels, 2005). Nowadays, the exchange of literature and art with students in colleges and universities is mainly to share their opinions on society and life so as to promoting the mutual understand between students and teachers and students and society. The general secretary of Xi, Jinping has listed so many both ancient and modern master of literature in the speech of forum of literature and art which made the leaders, ideology and politic teachers, teachers of philosophical and social sciences in higher institutions embarrassed as the general secretary of Xi Jinping still quite familiar with a lot of works of famous artists even if he is extremely busy every day. Moreover, the

sayings what he quoted have not been read for most leaders and teachers in higher institutions. It reflects that the humanity quality education is very in short in a great number of higher educations. Therefore, strengthening the humanity quality education requires that higher institutions attach great importance to and teachers make up for humanity quality education. Colleges and universities should make efforts to open a class for the guidance of classics for all students and start selected courses for art appreciation and writing classes so as to develop and enhance the art appreciation and creation abilities for students. For example, Hunan University official website has made a column of "Yue Lu Literary World", aiming at collecting and publishing numerous literature and art works of teachers and students in Hunan University, which really enhanced the its cultural taste. The relatively lower cultural taste of lots of official website of higher institutions mainly lies in the shortage of the construction of cultural life of college students.

Improving the culture of college system though promoting the implement of university regulations

Comenius (1990), the educator of Czech, has said that system is the soul of everything to the management of colleges and universities. To promote the principle of running schools according to law and secure the legal rights and interests of faculty and students, a great majority of higher institutions have made university regulations which are reviewed, approved and implemented by the Ministry of Education by abiding by the Education Law of the People's Republic of China, Higher Education Law of the People's Republic of China, Interim Measures for Formulating Regulation of Higher Education plus the actual conditions of university. It is the latest highlights of university system culture to promote the implementation of University Regulation in practice.

Creating university's behavioral culture with distinctive character

First of all, a new level of reading culture should be enhanced. Reading classics has many advantages. To author's mind, classics is the word expression of the characters of state, nation and people and can best represent the foundation of the cultural spirit and essence of the characters of state, nation and people. In addition, classics are unique and irreplaceable, which can be learned, replicated and imitated. Next, classics are the expression of truth which has been tested by history for a long time and can be lasting forever. Last but not least, classics are highly radioactive and influential. Should the college students read classics frequently, they could not only carry out excellent tradition but blaze new trails. How to promote college students reading classics? There are many ways adopted by higher educations. Some check the records of classics borrowed by students from libraries, some require college students to write 10,000 classical literature in a semester, some invite experts who study on

literary, art and history to make lectures for students and some conduct classical reading contest for students. All these methods are feasible as long as they are effective. Should universities and colleges stick to encourage students to read classics, they could accumulate various experiences on helping students read classics.

In addition, the innovation of university culture should be emphasized. Innovation culture is a cultural ecology that promotes the development of innovation though highlighting innovative spirit, inspiring the awareness of innovation and encouraging innovative activities. The vitality of university culture depends on the innovation as university is an organization which is on a mission to innovate knowledge, academic and competence. University innovation culture is an organization culture with the characteristics of competition and incentive orientation formed during the process of students challenging themselves and others. It facilitates the creation of a positive university atmosphere and the shape of a enterprising spirit which could encourage the common people to do great things and inspire ordinary workers to have a wonderful career. College and university cannot survive without innovation. Similarly, Chinese dream can only be realized with university cultural innovation. The success of massive startups advocated by the premier Li Keqiang, to universities and colleges, is determined by the efforts of their faculty and students.

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Exploration and Practice of PBL Online Teaching Mode Reform of Long-distance and Open Education

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Abstract: Curriculum is the focus of teaching reform and exploration. As the information technology and education continuously to move towards integration, with the obvious characteristics of digitization and networking, distance open education has been received increasing attention. To carry out online teaching mode reform can exert the advantages of distance open education better. This paper takes the course “Theory of International Trade” as an example of online teaching to discuss how to carry out the practice of online teaching based on the teaching mode of problem driven (PBL), and makes summary and reflection of this online teaching mode.

Key words: network environment, problem-based learning, teaching mode

Introduction

As the information technology and education continuously to move towards integration, the corresponding teaching ideas, teaching space, and teaching methods also must be adjusted and changed to meet the real needs of learners. Based on distance open education of digitization and networking, through the design and application of online teaching, teaching interaction can be strengthened and teaching characteristics can be reflected. This is also an important measure for the reform of teaching methods. Online teaching must have certain purposes in order to improve teaching quality. Students participating in distance open education are basically on-the-job, with certain self study ability, so FAQ (frequently answer questions) is the most important purpose of online teaching.

Brief Introduction of PBL Teaching Mode

Problem-based learning (PBL) is a teaching method popular in the world, which emphasizes the teaching method that takes student and problem solving as the center. The whole teaching process puts students in a complex, meaningful problem situation, developed around the solution to the problem. With the help of the teacher, through lots of learning activities such as letting students work in groups and do collaborative learning to solve problem together, and to express the learning results and problem solving by works exhibition. In this process, students not only can learn the knowledge hidden behind the problem, develop the ability to analyze and solve problems, but also can develop the consciousness and ability of independent learning and lifelong learning, which can be shown in

Figure 1.

In PBL, “problem” has a special meaning and status. In online teaching, it is advisable to set up some proper problems for students to stimulate their interest in learning and to promote their deep learning. As a basis for the students to use the network resources to carry out their own and cooperative learning, PBL Makes the learning objectives very clear, is suitable for students learning characteristics, with high operability, can help students to master system theory knowledge and improve the practical ability. In addition, PBL good study cased can be collected to establish theoretical and practical case library, which can not only further mobilize students’ enthusiasm and make achievements in teaching and teaching resources sharing, but also can let all the students communicate with each other and learn from each other.

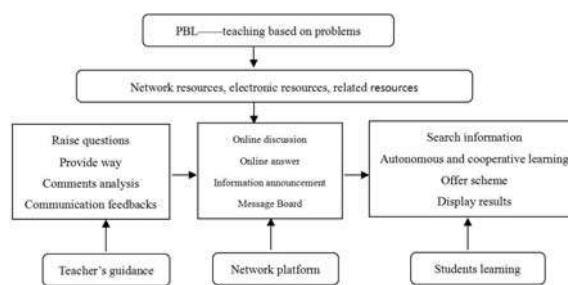


Figure 1 PBL Teaching Mode

Organization and Implementation of PBL Teaching Mode in Network Environment

On the basis of PBL teaching mode, this paper takes the course “International Trade Theory” of Zhejiang Radio and Television University as an example to explore and practice online teaching.

Fund: 2015 excellent course project of Zhejiang Radio and TV University: course construction of “International Trade Practice” .
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Through the course, the students can understand the basic knowledge of international trade, master some important knowledge points and difficulties, combine some practical cases of international trade and use the knowledge of international trade to analyze, combining theory and practice, to lay a good foundation for the further study of professional courses.

1. Online teaching purpose

Driven by problem, a variety of teaching methods are used, to further deepen the curriculum reform, activate online teaching atmosphere, implement teaching process, improve teaching quality, gather students learning interest, to help students develop good habits of positive thinking and participating in discussion, to cultivate students' ability to analyze practical problems, strengthen the ability to interact with classmates, improve the teaching quality and effect, to better reflect the concept of open education, to enhance students' inquiry and collaborative skills.

2. Online teaching organization

(1) The online teaching time arrangement of the course should be carefully planned, and the online teaching plan should be designed, and the class QQ group and online learning platform are used to provide teaching related information and publish relevant information.

(2) To introduce the course and online teaching content, including the nature of the course, the class selected this course, participants, and how to participate in the online teaching of the course.

(3) With the assistance of the head teacher, to do the distribution and collection of questionnaire survey well, and then do statistical analysis, to provide the empirical material for writing summary and reflection of online teaching plan.

The implementation of PBL teaching mode in the network environment

Online teaching is designed in three stages' action research. In each round of action research, a specific problem is set up, according to the "plan - action - observation - summary" step to unify the theory and practice.

(1) The first step: the teacher puts forward the open guide problems to attract students' attention and interest of the course, and trigger students' later stage questions. In this course, the teacher raised the question first: "Do you have access to international trade in your work and life? Compared with domestic trade, which one need professional knowledge more?" (see Figure 2). This issue is intended to allow students to know the importance of learning the course "International Trade Theory". After thinking, the students will understand and ask questions about the knowledge points in the course (see Figure 3).



Figure 2 Teacher puts forward the open question first



Figure 3 Students respond to the teacher's guidance

(2) The second step: interactive questions and answers to teachers and students. In online activity theme design of this course, PBL is the guide that triggers the learners' autonomy learning and inquiry learning, to participate in real-time and non real-time online teaching interaction, to publish learning results. In this process, the problem is reflected in the two aspects: on the one hand is the students bring up the curriculum problems encountered initiaively according to their own learning situation, to ask the teacher to answer. If other students know the answer, they will participate in the discussion see Figure 4, 5, 6). In the course of online teaching, the students put forward some practical problems, such as the "Online overseas shopping and international trade", "International trade and electronic commerce", "Economic measures to encourage exports" and "The Silk Road Economic Belt and the 21st-Century Maritime Silk Road".



Figure 4 Students put forward "Online overseas shopping and international trade"



Figure 5 Answers of other students to the problem of "Online overseas shopping"



Figure 6 Answers of teacher to the problem of "Online overseas shopping"

On the other hand, questions raised by the students will be

scattered, lack of professional system, Teachers should choose key points, hot issues and difficult problems of this course., For the key knowledge points students don't raised, teachers should ask students questions and let them think to find the answer (see Figure 7,8,9,10). In this online teaching, teacher's supplementary questions are "Absolute advantage and comparative advantage", "Trade relations in ancient China", "Leontief Paradox" and so on.



Figure 7 "Leontief Paradox" raised by teacher



Figure 8 Respond of students to the problem "Leontief Paradox" raised by teacher



Figure 9 Heuristic answer to the problem "Leontief Paradox" published by teacher



Figure 10 The students' further thinking of "Leontief paradox" problem after reading teacher's reference answer

(3) The third step: the teacher's comments and summary. In the summary, problems and the knowledge points should be closely linked, let the students know the purpose of purposing and solving the problem is to deepen the master of key points, difficulty and hot points. In the summary of this online teaching, the teacher will summarize the problems students raised to each chapter, reflecting the comprehensive and systematic discussion (see Figure 11), to further introduce the main contents of each chapter, to understand and grasp the knowledge points, to facilitate the students to review (see Figure 12).



Figure 11 A brief summary of teachers' questions about online teaching



Figure 12 Teacher introduces knowledge points and teaching requirements of each chapter

(4) The fourth step: case analysis. After the systemic introduction of the knowledge of each chapter, to deepen the learning content, strengthen the students' ability of theory combined with practice, the teacher has designed a number of teaching cases (Figure 13), For the cases, the teacher puts forward problems respectively, introduces the skills of case analysis (Figure 14), so that students participate in the discussion (Figure 15), deepen the understanding and grasp of knowledge.



Figure 13 Case problems raised by teacher



Figure 14 Teacher introduces case analysis skills



Figure 15 Answer of students to case problems

(5) The fifth step: online teaching summary and reflection. After the above steps, the teacher summed up this online teaching (Figure 16), but the teaching activity doesn't stop at this point. The teacher also designed the questionnaire for the students to fill in, to know the psychological feelings and subjective evaluation of students participating in this teaching activity, in order to carry out teaching reflection, promote teaching level.



Analysis of PBL teaching activities in the network environment

In order to understand the students' understanding and evaluation of PBL online teaching better, a questionnaire survey is conducted on the students' participation. Some of the statistical analysis are as follows:

(1) Participating in online teaching

The total number of students participating in online teaching is 32. According to the statistics of online teaching, the teacher has published 18 questions and 31 cases. Besides, each case is accompanied by 2 to 4 problems. The number of problem asked by the students is 29. For the number of online posting and replies, teacher's is 52 and 47, students' is 36 and 45. The total number of post is 262. In general, students are relatively active; the interaction between teachers and students is good, which reflects the problems driven online teaching mode is welcomed by students. And its effect is good.

	Number of published problem	Number of post	Number of replies
Teacher	18+31 (Case problem)	114	47
Student	29	56	45
Total	78	170	92

Table 1 Participation in online teaching of students

(2) The theme design of online teaching
According to the survey, the theme design of online teaching is appropriate, accounting for 71.9%. The design has combined some key points, difficult points and hot issues of international trade, such

as the differences between international trade and domestic trade, international service trade barriers, online overseas shopping, and some practical cases analysis, which are suitable for learners to carry out autonomous learning, group learning and inquiry learning.

	Effective percentage (%)	Cumulative percentage (%)	Mean value	Standard deviation
appropriate	71.9	71.9		
middle	21.9	93.8	1.34	0.602
inappropriate	6.3	100.0		
Total	100.0			

Table 2 Whether Subject design is appropriate

In answering the question whether or not you like these online teaching topics, 68.8% of the learners choose "like" that is 2/3 of the

learners accept these online teaching topics.

	Effective percentage (%)	Cumulative percentage (%)	Mean value	Standard deviation
like	68.8	68.8		
middle	28.1	96.9	1.34	0.545
unlike	3.1	100.0		
Total	100.0			

Table 3 Whether these online teaching subjects are welcomed

(3) The help of online teaching to study
Online teaching is an important part of formative assessment,

and it is also the organization of key points, difficult points and confused problems. In the survey of whether online teaching content is helpful for your study, 3/4 of the students choose yes.

	Effective percentage (%)	Cumulative percentage (%)	Mean value	Standard deviation
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helpful	75.0	75.0		
middle	21.9	96.9		
unhelpful	3.1	100.0	1.28	0.523
Total	100.0			

Table 4 Is online teaching helpful for your study

(4) The interaction of online teaching
 Teaching interaction is to carry out a series of interactive activities between teachers and students in the process of teaching. It is also the basis of developing distance education teaching activity, the key for integrating teaching and learning, reflect teaching level directly, affect learning results. In the course of online teaching and learning, about 60% of the students think that online teaching can effectively promote the interaction between the teaching and learning, promote the exchange and discussion of teachers and students, It is also conducive to the solution of the problem and the realization of teaching emotion goal.

	Effective percentage (%)	Cumulative percentage (%)	Mean value	Standard deviation
realized	59.4	59.4		
middle	37.5	96.9		
unrealized	3.1	100.0	1.44	0.564
Total	100.0			

Table 5 Is the interactive process of teaching realized

(5) The overall evaluation of online teaching design and implementation
 Online teaching is an important way to implement the reform of curriculum teaching, and the results of online teaching design and implementation need to be reflected through the evaluation of the learners finally. In the overall evaluation of online teaching design and implementation, about 68.8% of the learners are satisfied with it, indicating that PBL teaching mode of online teaching is welcomed and acceptable

	Effective percentage (%)	Cumulative percentage (%)	Mean value	Standard deviation
satisfied	68.8	68.8		
middle	18.8	87.5		
unsatisfied	12.5	100.0	1.44	0.716
Total	100.0			

Table 6 The overall evaluation of the design and implementation of online teaching

Summary and Reflection of PBL Teaching Mode in the Network Environment

Summary of PBL teaching mode in the network environment

(1) Wisdom online teaching and learning platform should be provided.

Online teaching needs to be carried out in a suitable network environment. A wisdom online teaching and learning platform, is based on application of information and communication technology, learner-centered, can be adapted to different learning styles and learning ability, and provide support for lifelong learning. This platform can let the student strengthen the learning experience, obtain the best study result, realize organic combination of teaching, space and technology, which is the premise and basis for online teaching. At the same time, it is beneficial to the integration of information technology and teaching process. Due to the restriction of real conditions, the network teaching platform used here is single, mainly in the form of post to guide the interaction between teachers and students. However, the real smart digital platform should be able to put online teaching resources (such as teaching syllabus, teaching

PPT, IP courseware, etc.) at the striking interface, to facilitate students to check and use. It can also display the QQ chat, micro channel interaction and other content on the interface dynamically. Therefore, there is still much space for the improvement of learning platform.

(2) It should be conducive to the realization of the teaching objectives, and highlight the PBL mode by combined with the nature of the curriculum.

The design of online teaching should meet with the requirements of teaching objectives and be helpful to the realization of the goal of knowledge, ability, and emotion. In the online design teaching of this course, the knowledge target is to understand and master some of the key points, difficult points and hot issues; the ability target is to use the international trade theory to carry out the actual case analysis, to cultivate students' ability to analyze the practical problems, to interact with the students and teachers; the emotional target is to strengthen the emotional exchange between teachers and students, and promote the online and offline interaction in order to improve the quality and effect of teaching.

There are different requirements for different courses in online

teaching. To attract learners to participate in learning better, PBL mode is an important way of teaching. This teaching method, through the problem driven way, promotes the students' participation interest, provides the platform to exercise independent learning ability. Online teaching is not piling up the teaching knowledge points, but the focus should be on the cultivation of students' ability. Open education online learning platform of Zhejiang Radio and Television University provides teaching resources display places specifically. Therefore, online teaching is not necessary to repeat the same content too much, but it should focus on the students to raise questions initiatively. With teacher's comments, students deepen the understanding and mastery of knowledge points, and learn to use theory to contact the actual situation, analyze and solve practical problems.

(3) Online teaching should be combined with the students' learning situation.

The students participate in distance open education are mostly on-the-job students, who are busy with work, so the time of study is limited and they often rush to school when off duty. However, as long as there is network, online teaching can be carried out anytime and anywhere, fully playing the advantages of opening the distance education network. Students can ask questions, or search the teacher's answer, or participate in teaching and learning interaction, which solved the conflict between work and study better, reduced the time spent on the road and the school's transportation costs and parking fees, etc.. In the survey, most of the students are willing to participate in online teaching which is generally welcomed.

(4) Open education ideas should be better reflected.

The most major characteristic of modern distance education is, under the support of modern education technology, under the guidance of lifelong learning and autonomous learning, learners can't be limited by time and space and fully use the role of a variety of media to carry out autonomous and personalized learning. So, distance open education provides the greatest convenience for learners. Based on the network environment, PBL teaching mode is meeting the requirements of open education. The use of class QQ group, curriculum learning platform, and online teaching interactive platform provide the convenience of distance learning. It also meets the requirements of personalized and autonomous learning, and reflects the characteristics of open education that is mainly autonomous learning, teaching as a supplement.

The reflection of PBL teaching mode in the network environment

Through this activity, we also find that if we want to play the role of PBL online teaching better, and promote the reform and development of online teaching, the following issues should be paid attention to:

(1) The online teaching curriculum should be targeted. It should choose the course the students selected more, and more adapted to carry out online teaching, then it will be easier to gather popularity and form a strong teaching atmosphere. The post is not the more the better. According to the experience of this teaching activity, the number of questions teachers answered is approximately 5 to 10 in 1

hour, and each time students willing to participate in activities lasted less than three hours. That is to say, the more the number of the post, the more teaching energy of the teacher's should be input. It is impossible to input the same energy in all courses, and is not conducive to the promotion of online teaching; meanwhile, the concerns of students learning are also submerged in the post sea. From the time cost, students will choose reading learning materials rather than waiting for a few days for teacher's replies.

(2) In teaching activity, PBL should be as the core, to select some key points, difficult points and hot issues to attract learners' study interest, encourage them to make full use of network resources to do explore learning and cooperative learning, solve problems creatively by combing theory and practice, fully embodying the education idea of mainly autonomous learning, teaching as supplement.

(3) For an effective online teaching, its overall design and planning, organization and implementation, supervision and improvement go hand in hand, and indispensable. Teachers should give full consideration to this point. In addition, we should strengthen the assessment of interactive teaching link, and take it as a part of the normal score or formative assessment results.

The online teaching of problem-based learning mode (PBL) is an exploration of the teaching reform and innovation of the distance open education curriculum. In the problem driven teaching reform experiment, the problem can be raised by the teachers or students. Teachers and students can answer and evaluate these problems directly. In the future teaching, we intend to further play the initiative and the spirit of innovation of learners, so that learners themselves to find the teaching problems in books, then to solve these problems themselves. This kind of active exploration will be more beneficial to the improvement of students' independent learning and innovation ability.

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Parataxis and Hypotaxis in the European Charter for Regional or Minority Languages: A Linguistic Comparative Analysis of the English, Italian and Spanish Versions

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Abstract: The present chapter analyses the use of parataxis and hypotaxis in the English, Italian and Spanish versions of the European Charter for Regional or Minority Languages, a treaty of the Council of Europe which aims to protect and promote the historical regional or minority languages of Europe. As regards main clauses, this study dwells on the use of coordinate or paratactic clauses. As regards subordinate clauses, this study dwells on the use of coordinate subordinate clauses and explicit or implicit subordinate clauses. The purpose of this paper is to show that Legal English, Legal Italian and Legal Spanish can differ in their use of parataxis and hypotaxis. Indeed, the major result of the study reveals that Legal Spanish privileges the use of explicit clauses more than Legal English and Legal Italian. In conclusion, the present research contributes to the diffusion of the study of Legal English, Legal Italian and Legal Spanish and of the discipline of Legal Linguistics following Text Linguistics approach.

Key words: parataxis, hypotaxis, main clauses, subordinate clauses, explicit clauses, implicit clauses, legal English, legal Italian, legal Spanish

1. Introduction

The present study sets to explore the use of parataxis and hypotaxis in legal texts created in three different communicative settings, English, Italian and Spanish, in order to underline their difference in using those literary techniques and so making a contribution to the cross-cultural investigation of the linguistic features and the legal discourse, which is important for the understanding of the increasingly globalized legislative practices.

The analysis concerns the legal language in normative texts and it is qualitative in nature as it considers one same normative text in three different languages, that is the English, Italian and Spanish versions of the European Charter for Regional or Minority Languages, a treaty of the Council of Europe which aims to protect and promote the historical regional or minority languages of Europe.

The objects of study are the English, Italian and Spanish versions of the Charter, while the French version of the Charter is used as a further reference basis since it is the source text of the Italian and Spanish ones; in particular, the French version is taken into consideration to show whether or not an Italian and Spanish specific use of parataxis and hypotaxis is due to a transfer resulting from a strict fidelity to the French version in the translation.

The sources of the examined versions of the Charter are: the Council of Europe site for the French version, <http://conventions.coe.int/Treaty/FR/Treaties/Html/148.htm>; the Foreign & Commonwealth Office site for the English version, <http://www.fc.gov.uk/en/publicationsanddocuments/treatycommandpapers/treatycommandpapersbydate/treatycommandpapers2001/>; the Council of Europe site for the Italian version, <http://conventions.coe.int/Treaty/ita/Treaties/Html/148.htm>; the Official State Gazette Agency site for the Spanish version, <http://www.boe.es/boe/dias/2001/09/15/pdfs/A34733-34749.pdf>.

The choice of comparing English, Italian and Spanish is based on the need to compare languages either of different linguistic groups, in particular a Germanic language and Romance languages, or which refer to States with different legal traditions, the United Kingdom belonging to the tradition of Common Law, Italy and Spain belonging to the tradition of Civil Law. The legal tradition of Common Law is British in origin and it "[...] was formed primarily by judges who tried to resolve specific disputes. Today it still bears striking traces of its origins. The Common Law legal rule is one which seeks to provide the solution to a trial rather than to formulate a general rule of conduct for the future. It is, then, much less abstract than the characteristic legal rule of the Romano-Germanic family" (Rene and Brierley 1985: 24). In contrast, the legal tradition of Civil Law derives from Roman Law and its legal rules "[...] are conceived as rules of conduct intimately linked to ideas of justice and morality", they are usually developed by legal scholars who elaborate the doctrine and they are incorporated into codes (Rene and Brierley

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1985: 22).

2. Parataxis

The term parataxis comes from two Greek words: ‘para’ means by the side of, and ‘taxis’ means arrangement; it is a literary technique, in writing or speaking, which consists in the employ of a series of short and simple sentences or independent clauses of the same syntactic level, strung side by side, with or without the use of coordinating conjunctions (Fish 2011: 62).

In the English, Italian and Spanish versions of the European Charter for Regional or Minority Languages, the syntactic style is more hypotactic than paratactic; indeed, each version of the Charter counts about 80% of subordinate clauses.

As regards paratactic sentences, the three examined legal languages only show four cases and they always agree with each other in using them in their version of the Charter; an example:

Article 3, paragraph 3

“Les engagements prévus au paragraphe précédent seront réputés partie intégrante de la ratification, de l’acceptation ou de l’approbation et porteront les mêmes effets dès la date de leur notification”.

“The undertakings referred to in the foregoing paragraph shall be deemed to form an integral part of the ratification, acceptance or approval and will have the same effect as from their date of notification”.

“Gli impegni previsti nel paragrafo precedente sono considerati parte integrante della ratifica, dell’accezzazione o dell’approvazione e hanno gli stessi effetti a decorrere dalla data della loro notifica”.

“Los compromisos previstos en el párrafo precedente se considerarán parte integrante de la ratificación, aceptación o aprobación y tendrán los mismos efectos a partir de la fecha de su notificación”.

3. Hypotaxis

Like parataxis, the term hypotaxis comes from two Greek words: ‘hypo’ means below, and ‘taxis’ means arrangement; it is a literary technique, in writing or speaking, which consists in the employ of functionally similar phrases or clauses which play an unequal role in the sentence, that is which have a dependent or subordinate relationship within the sentence (Fish 2011: 51).

The English, Italian and Spanish versions of the European Charter for Regional or Minority Languages largely use a hypotactic writing style, in particular implicit hypotactic constructions (a. 23, p. d), that is a hypotaxis realized through non finite tenses, more than explicit hypotactic constructions (a. 3, p. 2), that is a hypotaxis realized through finite tenses; some examples:

Article 3, paragraph 2

“Toute Partie peut, à tout moment ultérieur, notifier au Secrétaire Général qu’elle accepte les obligations découlant des dispositions de tout autre paragraphe de la Charte [...]”.

“Any Party may, at any subsequent time, notify the Secretary General that it accepts the obligations arising out of the provisions of any other paragraph of the Charter [...]”.

“Ogni Parte può notificare al Segretario Generale in qualsiasi momento successivo che accetta gli obblighi derivanti dalle disposizioni di ogni altro paragrafo della Carta [...]”.

“Toda Parte, en cualquier momento posterior, podrá notificar al Secretario general que acepta las obligaciones que derivan de las disposiciones de cualquier otro párrafo de la [...]”.

Article 23, paragraph d

“toute notification reçue en application des dispositions de l’article 3, paragraphe 2”.

“any notification received in application of the provisions of Article 3, paragraph 2”.

“ogni notifica ricevuta in applicazione delle disposizioni dell’articolo 3 paragrafo 2”.

“toda notificación recibida en aplicación de las disposiciones del artículo 3, párrafo 2”.

From the conducted linguistic comparative analysis it emerges that, in some cases, English, Italian and Spanish are not concordant with each other in using explicit or implicit hypotaxis; comparing the percentage of use, it emerges that English employs more frequently implicit subordinate clauses, followed by Italian and, finally, by Spanish. Below, one of the numerous cases in which English employs, like French, an implicit subordinate clause, whereas Italian and Spanish employ an explicit subordinate clause:

Article 10, paragraph 3

“En ce qui concerne les services publics assurés par les autorités administratives ou d’autres personnes agissant pour le compte de celles-ci [...]”.

“With regard to public services provided by the administrative authorities or other persons acting on their behalf [...]”.

“Per quanto concerne i servizi pubblici assicurati dalle autorità amministrative o da altre persone che agiscono per conto di queste ultime [...]”.

“Por lo que se refiere a los servicios públicos garantizados por las autoridades administrativas o por otras personas que actúen por cuenta de aquéllas [...]”.

The similarity in using implicit constructions mostly occurs between English and Italian, when instead Spanish uses explicit subordinate clauses; an example:

Article 6

“Les Parties s’engagent à veiller à ce que les autorités, organisations et personnes concernées soient informées des droits et devoirs établis par la présente Charte”.

“The Parties undertake to see to it that the authorities, organisations and persons concerned are informed of the rights and duties established by this Charter”.

“Le Parti si impegnano a vegliare affinché le autorità, le organizzazioni e le persone interessate siano informate dei diritti e dei doveri stabiliti dalla presente Carta”.

“Las Partes se comprometen a velar por que las autoridades, organizaciones y personas a quienes atañe la presente Carta sean informadas de los derechos y deberes establecidos por la misma”.

In smaller cases, the concordance in employing implicit subordinate clauses concerns English and Spanish, when instead Italian employs explicit subordinate clauses; an example:

Article 13, paragraph 1, c)

“à s'opposer aux pratiques tendant à décourager l'usage [...]”.

“to oppose practices designed to discourage the use [...]”.

“a opporsi alle pratiche che tendono a scoraggiare l'uso [...]”.

“oponerse a las prácticas encaminadas a desalentar el empleo[...]”.

Finally, in one case, only French, Italian and Spanish agree with each other in using an implicit subordinate clause, when English uses an explicit subordinate clause:

Article 3, paragraph 1

“[...] ou chaque langue officielle moins répandue [...]”.

“[...] or official language which is less widely used [...]”.

“[...] oppure ogni lingua ufficiale meno diffusa [...]”.

“[...] o cada lengua officia menos difundida [...]”.

Even for the use of coordinate subordinate clauses, the English, Italian and Spanish versions of the Charter mostly agree with each other, nevertheless from the linguistic comparative analysis it emerges that they are not always concordant with each other in using them.

In one case, English employs two copulative coordinate subordinate clauses, whereas Italian and Spanish, like French, juxtapose those two subordinate clauses:

Article 11, paragraph 2

“ [...] L'exercice des libertés mentionnées ci-dessus, comportant des devoirs et des responsabilités, peut être soumis à certaines formalités, conditions, restrictions ou sanctions prévues par la loi, qui constituent des mesures nécessaires, dans une société démocratique [...]”.

“[...] The exercise of the above-mentioned freedoms, since it carries with it duties and responsibilities, may be subject to such formalities, conditions, restrictions or penalties as are prescribed by law and are necessary in a democratic society [...]”.

“[...] L'esercizio delle libertà summenzionate, che comportano doveri e responsabilità, può essere soggetto ad alcune formalità, condizioni, restrizioni o sanzioni previste dalla legge, che costituiscono le misure necessarie, in una società democratica [...]”.

“[...] El ejercicio de las libertades mencionadas anteriormente, que entraña deberes y responsabilidades, puede ser sometido a ciertos trámites, condiciones restricciones o sanciones previstos por la Ley, que constituyan medidas necesarias, en una sociedad democrática [...]”.

In one case, Italian uses two copulative coordinate subordinate clauses, whereas English and Spanish, like French, juxtapose those two subordinate clauses:

Article 10, paragraph 4, c)

“la satisfaction, dans la mesure du possible, des demandes des agents publics connaissant une langue régionale ou minoritaire d'être affectés dans le territoire sur lequel cette langue est pratiquée”.

“compliance as far as possible with requests from public service employees having a knowledge of a regional or minority language to be appointed in the territory in which that language is used”.

“la soddisfazione, per quanto possibile, delle domande degli agenti pubblici che conoscono una lingua regionale o minoritaria e che desiderano essere assegnati al territorio sul quale tale lingua è usata”.

“la aceptación, en la medida de lo posible, de las solicitudes de los empleados públicos que conozcan una lengua regional o minoritaria para que se les destine al territorio en que se habla dicha lengua”.

In one case, English and Italian, like French, employ two copulative coordinate subordinate clauses, whereas Spanish juxtaposes those two subordinate clauses:

Article 16, paragraph 3

“ Sur la base des rapports visés au paragraphe 1 et des informations visées au paragraphe 2, le comité d'experts préparera un rapport à l'attention du Comité des Ministres. Ce rapport sera accompagné des observations que les Parties seront invitées à formuler et pourra être rendu public par le Comité des Ministres”.

“On the basis of the reports specified in paragraph 1 and the information mentioned in paragraph 2, the committee of experts shall prepare a report for the Committee of Ministers. This report shall be accompanied by the comments which the Parties have been requested to make and may be made public by the Committee of Ministers”.

“In base ai rapporti di cui al paragrafo 1 e alle informazioni di cui al paragrafo 2, il comitato di esperti prepara un rapporto per il Comitato dei Ministri. Tale rapporto è corredato da osservazioni che le Parti sono invitate a formulare e può essere reso pubblico dal Comitato dei Ministri”.

“Sobre la base de los informes a que se refiere el párrafo 1 de la información contemplada en el párrafo 2, el comité de expertos preparará un informe para el Comité de Ministros. Dicho informe irá acompañado de las observaciones que se haya invitado a hacer a las Partes y el Comité de Ministros lo podrá hacer público”.

Always in one case, English and Spanish, like French, use two copulative coordinate subordinate clauses, whereas Italian juxtaposes those two subordinate clauses:

Preamble

“[...] Prenant en compte le travail réalisé dans le cadre de la CSCE, et en particulier l'Acte final d'Helsinki de 1975 et le document de la réunion de Copenhague de 1990 [...]”.

“[...] Having regard to the work carried out within the CSCE and in particular to the Helsinki Final Act of 1975 and the document of the Copenhagen Meeting of 1990 [...]”.

“[...] tenuto conto del lavoro effettuato nell’ambito della CSCE, segnatamente dell’Atto finale di Helsinki del 1975 e del documento della riunione di Copenhagen del 1990 [...]”.

“[...] Teniendo en cuenta el trabajo realizado en el marco de la CSCE, y en particular el Acta Final de Helsinki de 1975 y el documento de la reunión de Copenhagen de 1990 [...]”.

Besides, from the linguistic comparative analysis it emerges that, in one case, Spanish makes a subordinate clause of the English, French and Italian versions of the Charter into a main clause:

Part III

“Mesures en faveur de l’emploi des langues régionales ou minoritaires dans la vie publique, à prendre en conformité avec les engagements souscrits en vertu du paragraphe 2 de l’article 2”.

“Measures to promote the use of regional or minority languages in public life in accordance with the undertakings entered into under Article 2, paragraph 2”.

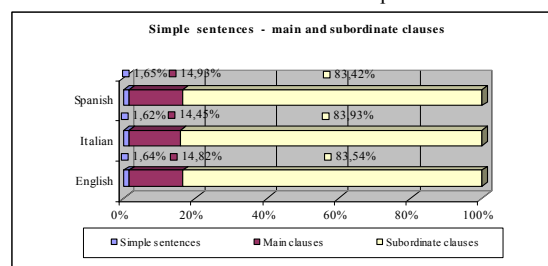
“Misure a favore dell’uso delle lingue regionali o minoritarie nella vita pubblica, da adottare conformemente agli impegni sottoscritti in virtù dell’articolo 2 paragrafo 2”.

“Medidas que, para fomentar el empleo de las lenguas regionales o minoritarias en la vida pública, deberán adoptarse de conformidad con los compromisos contraídos en virtud del párrafo 2 del artículo 2”.

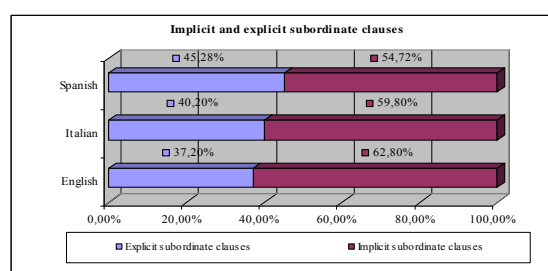
In conclusion, the English, Italian and Spanish versions of the Charter show a relevant concordance in using an hypotactic style, nevertheless comparing the cases of use, the major result is that among the three English more frequently prefers implicit subordinate

clauses, followed by Italian and, finally, by Spanish.

As regards the fidelity of the Italian and Spanish translations from the French with regards to the use of implicit subordinate clauses, the comparative linguistic analysis clearly reveals that Italian concurs more with French than does Spanish.



Graphic 1 The use of simple sentences and main and subordinate clauses in the English, Italian and Spanish versions of the European Charter for Regional or Minority Languages



Graphic 2 The use of implicit and explicit subordinate clauses in the English, Italian and Spanish versions of the European Charter for Regional or Minority Languages

Non finite verb forms					
English version		Italian version		Spanish version	
Present Infinitive	32%	Infinito Presente	38%	Infinitivo Presente	34,7%
Past Participle	15%	Participio Passato	18%	Participio Pasado	13,7%
		Gerundio Presente	3%	Gerundivo Presente	3,6%
-ing form	14%	Participio Presente	0,6%	Infinitivo Pasado	0,2%
		Infinito Passato	0,2%		
	61%		59,8%		52,2%

Table 1 Non finite verb forms used in the implicit subordinate clauses of the English, Italian and Spanish versions of the European Charter for Regional or Minority Languages.

4. Conclusions

Hypotaxis is a frequent and ancient characteristic of legal texts, Mortara Garavelli states that Maupassant was one of the firsts to underline the syntactical contortion of normative legal texts, namely the habit of expressing the variety of legally possible situations through joints of subordinate clauses (Mortara Garavelli B. 2001: 100).

Hypotactic encasements are advantageous as they favor the conjunction of a series of information in one sentence, this also in order to convey the precision that characterizes the language of law;

however, it is evident that the hypotactic encasements encumbers the sentence, sometimes even at the expense of the transparency of the message.

The syntactic style in the English, Italian and Spanish versions of the European Charter for Regional or Minority Languages is more hypotactic than paratactic; indeed, each version of the Charter counts about 20% of simple and main clauses and about 80% of subordinate clauses.

Summing up, the three examined legal languages show a relevant concordance in using paratactic and hypotactic styles, nevertheless comparing the cases of use, the major result is that among the three English more frequently prefers implicit subordinate

clauses, that is a hypotaxis realized through non finite tenses, followed by Italian and, finally, by Spanish. The English version of the Charter counts about 63% of implicit subordinate clauses, mostly realized through Present Infinitive and, with almost the same percentage, through Past Participle and -ing form; the Italian version of the Charter counts about 60% of subordinate clauses, mostly realized through 'Infinito Presente' and, in lower percentage, through 'Participio Passato'; finally, the Spanish version of the Charter counts about 55% of subordinate clauses, mostly realized through 'Infinitivo Presente' and, with lower percentage, through 'Participio Pasado'.

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Thoughts of Teaching Translation Courses under the Background of Globalization

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Abstract: The accelerated development of economic globalization makes the globalization of education become a historical trend of the development of education. Taking the theory of globalization as the background, this paper expounds and proves the feasibility of opening the Translation Courses for the non-English majors in colleges and universities, from the aspects of the demand of market, the nature of the translation task and students' ability. Then, it elaborates the benefits and possible teaching methods of the Courses.

Key words: globalization, College English translation courses

1. Introduction

In the context of accelerated economic globalization, language translation is of increasing importance in the international economic and cultural exchanges. According to the data from CIPG (China International Publishing Group), the value of China's translation market has exceeded 30 billion yuan each year, with over 3000 registered professional translation enterprises. China's translation industry has entered a stage of rapid development.

However, the prosperity of the translation industry leads to the acute shortage of translators: China's translation talent gap reaches up to 90%. China's development in economy, culture and society, calls for more translators of different types. Besides, the differentiated demand of translator type and level is very urgent, therefore, Translation Courses just for English majors are clearly unable to meet market demand.

Watching US TV series is good for learning English and understanding American fashion, but for most viewers, the biggest obstacle is the language. Because of the extraordinary efficiency of subtitle translation groups, Chinese netizens are able to watch *Prison Break*, *Gossip Girl* and other hit U.S. dramas in less than a day later than American viewers. In fact, the subtitle translation of 22 minutes' episodes takes at least two or three hours for a translator with high proficiency, in addition to the timeline production and post digital technology, the subtitle translation calls for many people's hard work. The professional translation quality of CCTV is certainly the best, but what matters for the subtitle translation is perhaps the expertise of American dramas and hearty spirit of entertainment. Once a time CCTV rebroadcast of Golden Globe Award made a mistake that it translated American drama *House* into family.

2. Feasibilities of Opening College English Translation Courses

Many domestic colleges and universities offer translation programs for English major, but the quantity of translation or interpreting courses is not much. The number of degree program in MTI (Master of Translation and Interpreting) soars from 15 in 2007 to 168 in 2010, but students who major in foreign language and translation is still too few. Under the urgent needs of the market, it is necessary that we should establish a multi-level training system and set up translation courses for non-English majors. Three reasons are listed as follows:

First of all, the market needs translators in all walks of life, while students who major in foreign language and translation is good at the translation work in literature, history, economics, law and other liberal arts fields, and it is often difficult for them to undertake the translation task in machinery, chemical industry, medicine, electronics and other engineering fields. In order to meet the market demand for translators, translation teaching should cater to professional development, and teaching for non-English majors should also bear the responsibility for training translation talents. Thereby it is urgent to open translation elective courses for students of science and engineering.

Furthermore, among current translation tasks, 5% relates to literature and academic writing while 95% involves personal information, business, machinery, electronics, engineering, medicine, finance, legal documents, etc. In addition, Zhang Kui made a survey of the translation market in Yangtze River Delta and the result shows that among the sampled 187 small-scale translation companies, only 47% of their employees major in foreign language and translation and only 41% of them have acquired translation certificates.

Last but not least, students of science and engineering are competent to be translation talents. For example, at the University where the author engages in teaching, among the average scores of students attending the College Entrance Examination in 2008, the average scores of 4126 non-English majors (excluding art students) in Chinese and English are 107.09 and 113.05 respectively, while those of 90 English majors are 111.34 and 118.81 respectively. This result shows that science and engineering students are equipped with a good foundation to practice foreign language capabilities.

3. Benefits and Possible Teaching Methods of College English Translation Courses

As for how to advance the teaching of College English Translation Courses and improve the translation level of non-English majors, the author will share his views in the following points.

Advantages of Non-English Majors

Non-English majors not only have as much basic knowledge as English majors, but also are outfitted with science and engineering knowledge and broad vision. Hence, through a targeted training, they are capable of higher translation ability and also bear predominance in terms of scientific translation and professional translation. At the University where the author engages in teaching, a total of four contestants have succeeded in entering the finals of "CCTV Cup" National English Contest in recent years, of which only one contestant majors in English. And in 2011 "FLTRP Cup" National English Contest, a total of 18 contestants entered the semifinals and half of them are non-English majors; then 6 contestants entered the final, four of which are non-English majors; finally, 3 contestants became the Top Three and they respectively major in marketing, political economics and life sciences. College English Translation Teaching, based on various professional backgrounds, aims to meet the market demand for a higher level of competitive professional translation talents.

Possibilities of Translation to Promote Language Learning

Translation is an important measure of foreign language proficiency. A good command of translation work calls for solid language foundation, rich background knowledge, systematic theoretical learning and plentiful translation practice. Translation helps students to take the initiative to learn, understand and master the related materials, so as to train students' comprehensive application ability. The success of translation depends on the full understanding of the original text, so translation helps to improve the understanding abilities of foreign language learners. And whether for English majors or non-English majors, translation, especially the abilities in professional translation and practical translation, is one of the most useful foreign language competence in employment.

Implementation of Syllabus Requirements

Ministry of Education has scientifically formulated a unified syllabus for College English Translation Courses, and Teaching

Requirements for College English, enacted in 2007, clearly put forward general requirements, relatively high requirements and higher requirements for translation ability. According to the different levels of the school and student, colleges and universities should compile the suitable syllabus and training programs, and then conduct a classified guidance, so as to handle the relationship between unity and diversity. Besides, much importance should be attached to the seamless integration with the market, and to develop career- and application-oriented translation talents.

Strengthening of Translation Textbook Construction

Recently, there are extremely lack of translation textbooks designated for non-English majors, and as for the few textbooks with obsolete concept, isolated discipline and stereotyped exercise, it is difficult to liven the classroom atmosphere and mobilize the enthusiasm of the students at college English class of 50 to 60 students. Considering the period, translation textbooks designated for non-English majors, should systematically arrange the presentation and practice of translation skills at each unit, for students to grasp some of the common translation skills at the basic stage of learning English. Translation textbook construction should not focus on literary translation, but on non-literary translation, such as technical data, technical equipment manuals, product specification, academic papers, international conference materials, legal documents, business contracts, overseas studying or travelling documents.

Rational Use of Teaching Methods

Translation method can enhance the teaching of basic knowledge, and teachers should adopt different teaching methods based on different teaching content and teaching objects at college English class. Teachers should refer to the syllabus to develop a viable plan that put the explanation of some basic translation skills into semester teaching plan stage by stage, and at usual classroom teaching they should appropriately expound the related translation skills in accordance with different texts. Certainly, the advancement of translation abilities relies on the mastery of translation skills and lots of translation practice, so teachers should ensure the enforcement of practice in class and students' extracurricular practice, all of which contribute to transforming translation skills and methods into students' intrinsic translation abilities. Due to limited period, it is desirable to make a book list of students' extra-curricular reading and exercise at the beginning of the semester.

Strengthening of Translation Teaching Research

On the basis of disciplinary research results at home and abroad, we should give full consideration of the particularity of China's college English translation teaching, including learners' characteristics, quality of teacher staff and other teaching conditions, and then explore and design our College English Translation Teaching System that meets the needs of learners at different levels and of different majors and ages; meantime, make research on

corresponding curriculum provision, teaching mode, teaching methods, testing methods, etc. Under the circumstances of economic globalization and competitive job market, college students are required to conduct demand analysis, find the market position and set the goals.

Acceleration of Teaching Staff Construction

Now there is a serious shortage for college English teaching staff in both quality and quantity. The few postgraduate students in translation major mostly teach in English Department after graduation. Colleges and universities should establish training system and organize teachers to carry out educational reform research by the following manners such as full-time adult education, further education, mentoring, teaching and research activities, etc.; meanwhile, teaching competitions and other activities should be launched to enhance the teaching and research capabilities for in-service teachers. College English teachers are encouraged to attend relevant courses in translation; some training class can be opened on school holidays.

Introduction of Computer-aided Translation

With the development of science & technology, the application of digital technology and in particular the rapid progress of the Internet, electronic dictionaries, translation software (search engines), and corpus have been maturing day by day, thus prompting translation work to move from professionalization to popularization. College English Translation Teaching should be fully aware of its positive effect, and teachers can consciously teach students how to use emerging technologies to improve the efficiency and accuracy of translation. Teachers can set up some new word translation exercises to guide students to find the corresponding translation through Kingsoft Powerword, China Daily Dictionary, etc. Then students are able to find a lot of background knowledge by Google and other search engines, thereby testing the accuracy and acceptability of the translation. Most importantly, teachers can also guide students to collect some materials purposefully and establish a personal corpus after certain software process according to their majors and future job hunting.

4. Conclusion

Opening College English Translation Courses is not to train professional translators, but to improve students' English abilities in listening, speaking, reading, writing and translation in an all-round way, so as to help students to exchange ideas in English, conduct Chinese-English translation on more extensive topics, and enhance student's competence and confidence to communicate in English. Offering the Courses also responds to practical needs and meets the

demands of the students to improve their English proficiency and translation capabilities, thus occupying vantage point in the job market and broadening employment approaches, and finally becoming a business backbone in the wave of economic globalization.

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Information System for Sustainable Forest Management

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Abstract: The existing rapid development of Information Technology and Communication, Geographic Information Management System, Rader Technology, remote sensing, and various other computer applications help and play great role in order to better management of special data acquisition, forest inventory management, and conducting tool for analysis of carbon assessment in sustainable manner. Information System that included GIS, and information technologies are a great assets for empowering accomplishment of data collection from field, data storing and retrieve process; improved communication across departments and levels; reduce duplication of tasks and efforts; sharing data for collaborative decision making; and prompt and efficient service to foresters, forest professionals, executives and many others that enhance to management of forestry in sustainable manner.

Key words: Information, forest Management, archive

Summary

Forest provides us essential goods to human society and services to prevent natural environment, but in today era it is going to disappearing than before due to various reasons, in which existing development of technology for Information Management including various computer applications plays great role to better management of forest in a sustainable manner.

The existing rapid development of Information Technology and Communication, Geographic Information Management System, Rader Technology, remote sensing, and various other computer applications help and play great role in order to better management of special data acquisition, forest inventory management, and conducting tool for analysis of carbon assessment in sustainable manner.

Computer Applications in Sustainable Forest Management presents state-of-the-art computer applications in a variety of specialty areas of forestry, including inventory, remote sensing, information management, modeling and visualization, biometrics, forest and harvest planning, bioeconomics and marketing, and decision science for management.

Generally information system is considered as a work tool. It helps user to perform certain recurrent tasks. A forest manager and officer have to keep tract number of activities and event in their forest areas such as forest inventory, fire in forest etc which can be reported to his/her concerned higher authorities e.g. district, sub-national and national authority. The system provides tools to collect data and gathered information about resources and activities and collected data store and retrieve into database for data editing, manipulating, consistency checking, verification and analyzing in order to design a quality report in standardized format.

The information system generally consists of four components i.e. Software, Hardware, Database and User. The data for community

forest management have to be collected from local perspectives. Such need include biomass estimation and forest monitoring.

Computer Applications includes Geographic Information System (GIS) technology and remote sensing applications are one of the greatest success and achievable applications for forests management, GIS is an important tool in decision-making during policy formulation, planning, and management. It helps to determine forests' location, condition, trends, patterns and modeling. GIS technology comprise with many others software applications such as Spreadsheet, Ms Access, SPSS, SAS, SAS Bridge, Assisi Forest, Cypress, FOREST, Forest Records, Woodlands, Woodstock, and Zenith. Patchworks and Google Earth Pro etc offer a full suite in order to forest management, Forest resources assessments and monitoring, Forest Protection, Forest harvesting, Forest rehabilitation, Community and social forestry, Forest conservation and biodiversity.

Information System that included GIS, and information technologies are a great assets for empowering accomplishment of data collection from field, data storing and retrieve process; improved communication across departments and levels; reduce duplication of tasks and efforts; sharing data for collaborative decision making; and prompt and efficient service to foresters, forest professionals, executives and many others that enhance to management of forestry in sustainable manner.

Introduction

Forest provides us essential goods to human society and services to prevent natural environment, but in today era it is going to disappearing than before due to various reasons, in which existing development of technology for Information Management including various computer applications plays great role to better manage forests in a sustainable manner. What should forestry do in the information era? How can we use computer technologies to better

manage forests in a sustainable manner? Computer Applications in Sustainable Forest Management provides critical information needed for forestry professionals to address such questions. Computer Applications in Sustainable Forest Management presents state-of-the-art computer applications in a variety of specialty areas of forestry, including inventory, remote sensing, information management, modeling and visualization, biometrics, forest and harvest planning, bioeconomics and marketing, and decision science for management. It also offers important new insights on how to continue advancing computational technologies in forest management to better achieve the basic goal of sustainable forest management (Shao, Guofan; Reynolds, Keith 2006).

An information system is generally considered as a work tool. It is designed to help a user to perform certain recurrent tasks. A forest officer may have to keep track of a number of activities or events in his district and report them to a central office. The system provide tools to collect data about the activities, store the data in a database, edit data, search for and select relevant information to report and to design a report in a standardized format. (MAR 2010). The information system generally consists of four components Software, Hardware, Database and User.

Software: A form of data processing in which a number of input jobs are grouped for processing during the same machine run e.g. Arc GIS, Microsoft Access, Microsoft Excel, SQL Server etc.

Hardware: Mechanical equipment which runs under the computer applications e.g. Desktop PCs, Laptops, Printers, Plotters, Workstations, Server, PAD, Super PAD, GPS etc.

Database: A database is an application that manages data and allows fast storage and retrieval of that data. In forest database system there exist several kind of database of spatial and nonspatial data e.g. Compartment planning details Map Layers, location of forest etc.

User: The user is considered a component of the system since the users background knowledge helps to create "information" from "data" e.g. Forest officers, Foresters etc.

Computer Applications

Geographic Information System (GIS) technology one of the greatest success and achievable applications for forests management, GIS is an important tool in decision-making during policy formulation, planning, and management which can be established of resources easier, e.g. recording and updating resource inventories, harvest estimation and planning, ecosystem management, and landscape and habitat planning(ESRI, 2003). Accomplishment of the GIS business there exist many others computer applications and technology have indeed supported. For instances Statistical Analysis System (SAS), SAS Bridge, Statistical Package for the Social Sciences (SPSS) for data analysis; and Microsoft Access, Excel, MySQL and Oracle etc for database designing to store and retrieve the forests data.

Use of GIS, and SAS in Forest Management: GIS helps to

determine forests' location, condition, trends, patterns and modeling. However, the majority of GIS applications including other statistical applications such as SAS (Statistical Analytical System) widely use for prediction of flood, fire and other natural disaster forest data. GIS bridge with statistical applications SAS mostly use in the following fields for forest management:

Forest resources assessments and monitoring: Forest resource assessment is the foundation of any sound forest management. Known roughly in other terms as 'forest inventory' or 'forest survey', it involves the collection, analysis and presentation of data about a particular forest area. Inventory data are essential in making forest plans and programs: their importance conforms with the maxim 'you can't manage what you do not know'. Reliable data about forests are needed to prevent or minimize the unfavorable economic and environmental consequences of any planned actions. The inventory data could include quantitative or qualitative descriptions of individual trees, forest stands, and their environment. As the primary objective of most forest resource assessment and monitoring is to know and map what in a forest area, it is not surprising that GIS has plenty of applications in this field. Whilst using GIS to accessing Deforestation, Degradation and land use/cover change, forest types, age classes, and forest resources at various spatial scales (Apan, 1999).

Forest Protection: Forest protection against fire, pest and diseases and human actions requires sound spatial data in the design of plans and their actual implementation. For instance, to predict the occurrences, location, direction, rate of spread and intensity of forest fire, spatial data sets about the vegetation types, topography, natural features, etc of the areas are needed. GIS can be used more accurately, quickly and thoroughly present, analyze and interpret annual and historical records of forest pest conditions(Vansickle 1989). In which SAS also plays great role whilst make a relation with GIS to predict relevant spatial data without having programming knowledge. Many organizations rely on spatial analysis to make business and agency decisions, and to conduct research. But accessing all the data relevant to these projects can be difficult, and limited analytical techniques often prevent thorough evaluations. Even when a powerful analytical and reporting system like SAS is available, results can't easily be transferred from SAS to ESRI GIS, for spatial investigations. Organizations that utilize spatial data need a way to link SAS and ESRI GIS software without having to write, and rewrite, custom code. The SAS Bridge for ESRI alleviates the need for customized data transfers. It gives you the ability to exchange spatial data between ArcGIS, the market leading geographic information system (GIS) software from ESRI, and SAS. This new product links spatial, numeric and textual data through a single interface to improve efficiency, produce more intelligent results and communicate those results more effectively (SAS).

Forest Harvesting: GIS bridge with SAS technology very useful for spatial data analysis and prediction of timber harvesting. Locations of forest stands, timber inventory data, ecologically

sensitive areas, key attributes of the terrain, and other important factors, could be mapped and included for spatial analysis necessary in harvesting plan preparation. Spatial modelling tasks could help the forest manager and government officials see the economic, environmental and social impacts of the proposed harvest (Apan 1999). GIS tools also help harvest planners to evaluate several road access alternatives – focusing on costs and their possible impacts. Other applications of road and forest access planning that can be performed by GIS users include the following (ESRI 1998)

GIS in forest rehabilitation: Spatial information is crucial to effective forest rehabilitation. If absent or inadequate, forestation projects are almost bound to fail. Those projects that have already floundered identified that poor spatial planning and monitoring of projects, due to weakness in land resource surveys and evaluation systems, are one of the main causes of failures (e.g. Apan 1992; Tolentino 1992; World Bank 1994). GIS could respond to solving major forest rehabilitation problems by providing an organised environment and analytical tool during site assessment and mapping, species-site matching, location of nursery and other infrastructures, and progress monitoring and evaluation (Apan 1999).

Community and social forestry: Good information is an essential prerequisite to direct actions in support of community-based forest management (Stone and D'Andrea 1998). However, social forestry projects need different sets of information. A social forestry program requires information that is broader than what 'traditional' forestry needs (mostly those pertaining to bio-physical factors). It also has to focus on socio-economic variables that affect local people's needs, priorities, and willingness

to participate. Moreover, community forestry needs to promote adaptable and participatory approaches to problem identification and project design (Apan 1999). The socio-economic attribute data, metadata and special data to use in GIS for dissemination of information for planning and monitoring.

Forest conservation and biodiversity: GIS provides a suitable environment from which to describe, analyze, and model ecosystem processes and functions. Design consideration for conservation areas such as size and number, shape, fragmentation, buffers, and zoning, corridors and connections, etc., could be easily produced and analyzed in a GIS if appropriate data sets in digital form are available. Moreover, relationships among diverse ecosystem components can be explored and visualized using the powerful analytical and visualization tools (Apan 1999).

Commercial and open source computer software

Due to rapid development of Information Communication and Technology there has enhanced forest management in sustainable manner. But, there is still bar to be used entire existing high-tech technology due to lack of skill people and budget of organizations whilst open source computer applications indeed help to enhance the sustainable forest management.

Commercial software: The table below shows a number of commercial software's that is developed for creation of forest information systems. Most of them are built on a GIS platform, usually market leading ArcGIS, but some are built on a standard DBMS as indicated in the table (MAR2010).

System name	Manufacturer	Types of software platforms	Running environment
ESRI Arc View, Edit, and Info	ESRI, www.esri.com	GIS	Desktop
Assisi Forest	Assisi Software U.S., http://www.assisisoft.com/	DBMS	Desktop
Cypress	American Forest U.S., http://www.americanforestmanagement.com	DBMS	Web
FOREST	Oy Arbonaut Ltd. Finland, , http://www.arbonaut.co	GIS	Web
Forest Records	WoodPlan Ltd. U.K., http://www.woodplan.co.uk/	GIS	Desktop
Woodlands	Cengea Solutions Canada http://www.cengea.com	GIS	Web
Woodstock	Remsoft Inc. Canada Woodstock, http://www.remsoft.com/	GIS	Desktop
Zenith	Savcor Group Ltd. Oy Finland http://www.savcor.com/forest/	DBMS	Desktop
Patchworks	Spatial Planning Systems Canada, http://www.spatial.ca/	GIS	Desktop
Google Earth Pro	http://www.google.com/enterprise/earthmaps/earthpro.html	GIS	Web

Open source software: Software can normally open which is free to download and use is known as open source software. For instance Linux is the operating system that can substitute Microsoft

windows. A few open software shows in the below table is developed for forest information system.

System name	Manufacturer	Types of software platforms	Running environment
Forestry GIS	University of Wisconsin and Wisconsin DNR – Division of Forestry, http://www.digitalgrove.net/fgis.htm	GIS	Desktop
ArcExplorer	ESRI Inc, http://www.esri.com/software/arcexplorer/	GIS	Desktop
Geomedia Viewer	Integrgraph, http://www.imgs.integrgraph.com/gviewer	GIS	Desktop
Map Explorer	ESRI (UK), http://www.esriuk.com/products	GIS	Desktop
GRASS GIS	US Army Construction Engineering Research Laboratories and presently maintained by Baylor University (USA) and University of Hannover (Germany), http://grass.itc.it/index.html	GIS	Desktop
EasyGPS	http://www.easygps.com/default.asp	Database	Desktop
GPS Utility:	http://www.gpsu.co.uk/	Database	Desktop
DNR Garmin Extension for Arcview GIS:	http://www.dnr.state.mn.us/mis/gis/tools/arcview/extensions/DNRGarmin/DNRGarmin.ht	Database	Desktop
Windmills Free GPS Software (Connecting a GPS receiver to a Laptop PC)	http://www.windmill.co.uk/gps.html	Database	Desktop
Quantum GIS(QGis)	Quantum GIS Project, www.qgis.org	GIS	Desktop
MySQL	MySQL, www.mysql.com	Database	Desktop

Internet and World Wide Web (WWW)

Organizations, business companies, personal blogs and many others access and exchange information and data through internet and www. The internet is a massive network of networks which connects millions of computer together globally whereas www or simply web is a way of accessing information over the medium of the internet. Forest database, inventory, documents contain graphics, sounds, text and video accesses via web browsers such as an Internet Explorer, Firefox, Google Chrome, Mozilla etc. Web designing is most important part to access the forestry database, information, map, inventory to do so existing software such as Adobe Dreamweaver, Web Studio, Fontpage, Net Object Fusion, Joomla, HTML editor, and programming languages of HTML, HTML, CSS, JavaScript and others can be used by forestry center, and relevant organizations.

Public participation is most important factor for forestry management in sustainable manner. This is why there must be availability of web discussion forum for intensive communication and discussion among the participations to access and exchange information and data related to forestry. Through the discussion forum forestry center studies public opinion, suggestions, comments and risk management of forestry.

Archive and Backup System

An Archive is the process of long term preservation, and recording of organizations' files, documents, data, report etc to prevent from theft, stolen, fire, natural disaster for future references. It contains primary source documents that have accumulated over the course of an organizations's lifetime, and are kept to show the function of an organization.

Archive Systems delivers products and services that enable organizations to manage paper and digital documents on-site and off-site throughout their lifecycle. The company provides a bridge to a paperless future by uniting traditional records management services with cloud-based Virtual File Room technology (Archive Systems). In such way setting up archive system in forest center that facilitates, and prevent any forest data, information, corresponding letters of forest activities, and many others document and report against the theft, fire, and copy. They are easily access and available when necessary for foresters, forest professionals and executives of forest centers.

Backup is most important tool to recover data after accidentally deletion, loss, hard disk failure, and computer theft. It is also use to restore data from early backup time according to user defined on

backup application. In recent year, rapid development of information system a popular cloud technology is developed for backing up data which means data backup to a hard drive in secure data center via internet connection, instead of just data store to hard drive in office. Thus, it is used to store and safe data thought online, and access storage data anywhere part of this world via internet. A most popular example of this is Dropbox, Microsoft SkyDrive and GoogleDrive etc. This is an incredible technology to store and sharing data, file, and folders for Forest professional.

Information Security Policy

The requirements of information security in Forest center in order to maintenance and safeguard of Information System including forest data, hard copy, and digital information against unauthorized use, disclosure or modification, damage or loss. To do so the center will strive to ensure security measures will be technically and centrally viable, prioritized based on risk assessments and reviewed at regular intervals, and provide information security training to employees and actively promote awareness of security matters.

Conclusion

Information System including Remote sensing, GIS technology and information technologies can indeed be useful in forestry management in sustainable manner particularly in empowering accomplishment of data collection from field, data storing and retrieve process. The improved communication across users groups to the Department of Forests can substantially reduce duplication of tasks and efforts and sharing data for collaborative decision making; and prompt and efficient service to foresters, forest professionals, executives and private sectors. Such a mechanism will promote prompt and efficient services to the forest managers (Forest users, District Forest Offices, executives at different levels, private tree owners and many others that enhance to management of forestry in sustainable manner.

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Market Structure Analysis on Ningxia Dairy Processing Industry

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Abstract: Dairy industry is one of the five strategic industries of Ningxia Agriculture. This paper is built on the data of investigation and survey, and provides a summary of current situation of Ningxia dairy processing industry. By using industrial organization theory, it analysed Ningxia dairy industry of 2004-2013 from three different angles in terms of market share, market concentration and the Herfindahl (HHI) index. It found that current Ningxia dairy industry is a high oligopoly market structure, and the market concentration presents the trends of high ends and low middle "Yanchi Style". Based on reality of current international and domestic dairy rigid demand, and domestic market intensified competition, it make a few suggestions from the government and enterprise levels, and provide new reference for the protection and development of industry with ethnic regional characteristics.

Key words: Ningxia dairy products, market structure, market share, market concentration, catfish effect

Introduction

Recently there has been a considerable change of dairy products industry in China. After the accident of tripolycyanamide and the rectifying the market order in 2010, the number of enterprise of dairy products has been reduced from 828 to 644. However, with the great pulling force of domestic demand, the total product value has been increased from 187.4 billion in 2010 to 269.8 billion in 2013. With the increasing rate of 20% per year, the dairy products industry becomes the quickest development food industry in China.

The dairy products industry of Ningxia started in 1980s and has developed through three stages: the stage of steady progress (1984-2002), the stage of fast increase (2003-2008); and the stage of transforming development (2009 – current). At the beginning of 2011, based on the new standards of dairy products industry, Ningxia government at different levels rectified the industry. At one hand, industrial magnates such as Yili, Mengniu, Wangwang, and Tianyou etc. have been introduced into Ningxia. On the other hand, a series of policies have been implemented across the province including cows carrying out family admission, integration and optimization of demonstration farm, transplantation of foreign high-yielding dairy cows with sexed embryos, and carrying out checking production performance of dairy cows. During the last four years, Ningxia government has focused on building standardization and intelligent cow breeding base construction, which not only makes cow population increased to 52 dairy herds, but also to achieve a high yield and quality of dairy breeds updates, and further improving the quality of milk in Ningxia. On the other hand, Ningxia government provides vigorously support to leading industries such as Xia Jin and Gold River et al. The government uses the "reshuffle" as an opportunity to adjust and optimize the industrial structure and

product mix, which promotes the development of wolfberry and health milk, fresh cheese, casein, anhydrous butter, pharmaceutical lactose and other high-end dairy products. The government introduced a large number of new technologies and new processes with international standards, and pushed the implementation of electronic information tracking system to realize the whole industry chain management system from the milk sources, procurement, production, factory, and transport to the full and effective regulation of sale terminals, constructed from "farm to table". As of the end of 2013, Ningxia dairy processing enterprises reached 37, of which 24 enterprises above designated size, 10 leading enterprises at the autonomous region level, and national leading enterprises, which produce 1.57 million tons of milk with an increase of 7.5%. There are more than 100 dairy cooperatives and farming associations, which helped more than 20,000 households. Among them, the farmers at center of Wuzhong breeding and dairy have the highest income of 3,000 yuan, accounting for more than 50% of farmers' cash income.

Analysis of Ningxia dairy industry market structure

The project team collected the data of enterprises of Ningxia dairy industry through the following methods: field visits to the enterprises, survey relevant authorities, obtain annual sales revenue, as well as total sales (main business income) and other data. It is found that the topic ten enterprises of Ningxia dairy industry are: Yinchuan Mengniu, Yili Yinchuan, Xijiang Dairy, VV North Tower, Xuequan Dairy, Hongguo Dairy, North Dairy, Jinghe Dairy, Xingning Huanghe (Acquisition by Chongqing Tianyou in 2010), Silver Lake Halal, the New Dairy (2010 eliminated). Figure 1: 2004 - 2013 before the 10 dairy enterprises in Ningxia sales income, total sales line chart.

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Statistics analysis of top 10 enterprises

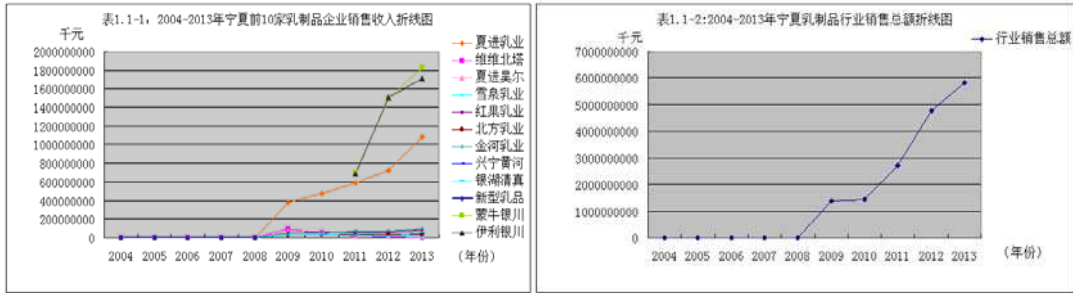


Figure 1 Line chart of sales income and total income of top ten dairy enterprises in Ningxia

Source: 2005-2014 China Dairy Statistics, 2005-2014 China Dairy Yearbook, Ningxia milk industry associations, Wuzhong Local Taxation Bureau.

Based on the Figure 1 it can be seen that before 2008, Ningxia dairy enterprises are in stage of extensive development due to its small market size and limited production capacity, and the total industry sales increased steadily year by year from 2004 to 2008. After 2008, especially after industry consolidation in 2009, Ningxia Xiajing became the leader of Ningxia dairy industry, with its first-class product quality and trade advantages. However, other companies were still in small-scale and low-level development, although sales revenue has been significant growth than before, never exceeded 200 million. In 2011, Yili and Mengniu settled in Ningxia, then Ningxia dairy sales income was pulled substantially linear upward, and the two giants of domestic dairy have occupied a dominant position quickly in Ningxia dairy industry, which exacerbated by competition within the dairy industry in Ningxia. The

competition has forced SMEs (Small and Middle Enterprises) of Ningxia dairy industry to find ways for survive, to implement competitive differentiation, to undertake research and to produce different products such as cheese, casein, butter, protein powder, infant milk powder and other high-end products.

Analysis of market share

The MS market share index (Market Share), it not only reflect the degree of competition in the market of Ningxia dairy industry, it can also be understood competition among each enterprise, and it reflects the relative position of individual companies in the market. Market share within the industry generally can be represented by the proportion of the company's sales revenue, production, fixed assets in the industry. After calculating the market share of Ningxia Dairy industry can be presented as the following figure:

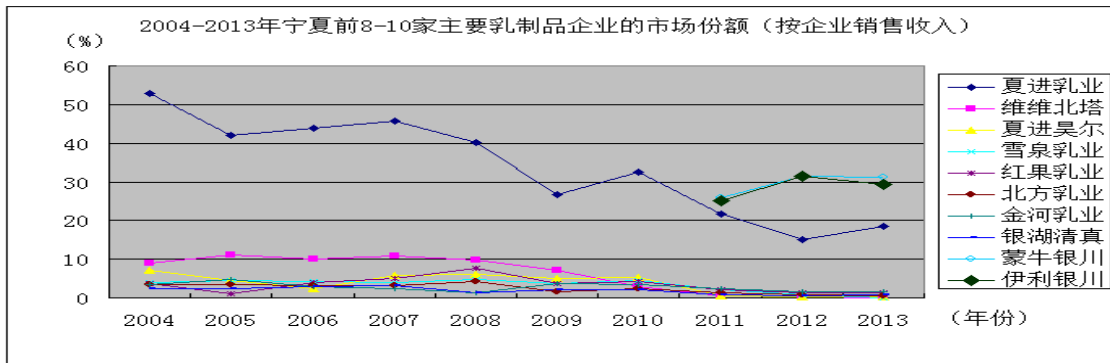


Figure 2 Ningxia major dairy company's market share (by sales revenue) : Unit :%

Source: 2005-2014 China Dairy Statistics, 2005-2014 China Dairy Yearbook, Ningxia milk industry associations, Wuzhong Local Taxation Bureau.

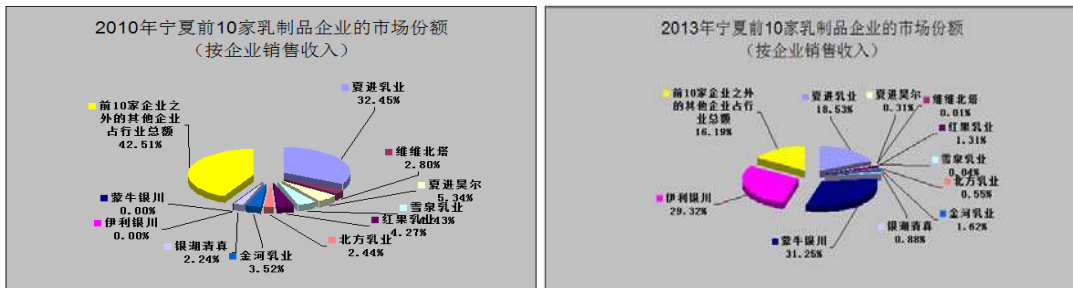


Figure 3 2010 - 2013 Pie chart of Ningxia Top 8-10 major dairy companies market share Unit :%

It can be seen from Figure 2: On the one hand, from 2004 to 2013 sales of eight former Ningxia dairy companies hold the majority market share for 10 % or less, and it generally tends to decrease. Among them, the dairy market share of Xiajing Dairy keep

playing a high position staring at 52.98 percent in 2004, and have been maintained at above 40% during 2004-2008, though in decline, but still maintain their relative higher. After 2008, except in 2010 , the rest of the year Xiajing Dairy are taking a downward trend,

which suggested that through industry consolidation, the competition of Ningxia dairy market are significantly enhanced, especially when Mengniu, Yili settled in Ningxia then the Xiajing dairy industry of Ningxia and other local enterprises were suppressed with a marked decline in market share. Wherein Weiwei North Tower was to obtain a higher market share before, but since 2009, it marked decline to 0.01% until 2013, and has lost its competitive advantage. During 2004 to 2013, other middle and small enterprises such as Hongguo, Xiajing Haoer, Xuequan, Gold River kept holding more than 4 percent market share, with a more stable market forces and industry profits rate, their market competitiveness is relatively balanced. Since 2011, Mengniu and Yili have settled in Ningxia market, and the share of these SMEs declined rapidly from 4% to 2% or less, and some even less than 1%, which indicated that the join of Mengniu, Yili and other domestic dairy giant, not only is the leading cause of Ningxia Dairy such as Xiajing to a sharp decline in market share, to reduce the competitiveness of enterprises, but also impacted on the market position of local enterprises in Ningxia, and the local enterprises is seriously threatened, and they face enormous pressure to survive.

On the other hand, taken 2008 and 2011 as turning point, before 2008, there is a stale ranking of Ningxia dairy industry for the first eight companies (except Xiajing) with market share remained at less than 10%, which indicated that before 2008, all the rest of the dairy industry of Ningxia were in the low degree of monopoly businesses. After 2008, the Ningxia dairy stood out from the "melamine" incident, with its excellent quality trusted by domestic consumers. Although the Ningxia autonomous region increased industry consolidation efforts to implement the new industry standards, most enterprises have been eliminated, the average volatility of Ningxia

top eight companies and their market share were still not changed much, and their shares had been picked in 2010.

Since 2011, with the join of the two dairy giants of Mengniu and Yili, there is a great fluctuation for Ningxia top 10 enterprises in terms of their market share. It is clear that after industry consolidation, along with the regional government to strengthen supervision of dairy companies, as well as the settlements of well-known companies such as Mengniu, Yili, Wahaha, and Chongqing Tianyou, Ningxia dairy industry has been facing significantly increased competition, and the market share of the top eight original local Ningxia enterprise are rapidly shrinking.

Analysis of the degree of market concentration

Market concentration (CR_n) index (Concentration Ratio) is used from industry-level to understand the conditions competitive and monopoly market, it is also used to measure the total market share of the total value of the industry before the n related indicators of big companies. According to the classification standards of American economist Bain and Japanese MITI to industry concentration criteria (see Table 1), industry market structure can be divided into two categories in terms of oligopoly (CR₈ ≥ 40%) and competitive (CR₈ < 40%). Among them, the oligopoly can be subdivided into high oligopoly (CR₈ ≥ 70%) and low concentrated oligopoly (40% ≤ CR₈ < 70%); competitive can be subdivided into competitive low concentration (20% ≤ CR₈ < 40%) and decentralized competitive (CR₈ < 20%). The value of this indicator is between 0% and 100%. The greater the value it represents that the industry is closer to a monopoly of the market; the other hand, the smaller the value, the closer it represents that the industry is fully competitive market.

Table 1 2004 --2013 Ningxia dairy industry market concentration (CR4, CR8, CR10) Unit: %

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CR4	72.99	62.56	61.73	67.49	63.98	42.67	46.49	75.25	79.37	80.71
CR8	85.79	74.10	73.20	80.33	75.51	53.65	57.49	81.69	82.50	83.76
CR10								82.81	83.07	83.81

Source: 2005-2014 China Dairy Statistics, 2005-2014 China Dairy Yearbook, Ningxia milk industry associations, Wuzhong Local Taxation Bureau.

According to the table 1, it can be seen that from 2004 to 2013 market concentration of Ningxia dairy industry (CR4, CR8, CR10) has experienced a considerable changes, and the market concentration presents two high end, and low middle of "yanchi style" trends: wherein, 2004-2008, CR4 declines from 72.99% to 63.98%, down 9.01%; CR8 falls from 85.79 percent to 75.51 percent, down 7.64 percent, and it belongs to III oligopoly market structure. It is reflected that before 2008, the industry access threshold was low with less barriers, which driven by demand for domestic dairy market rigidity. At that time Ningxia dairy market was mixed, and the dairy industries grabbed milk source and fought for the market by using low prices and other unhealthy competition. The four large companies Xia Jin, VV North Tower, Xiajin Haoer, Xuequan were caught in this vicious competition. Their monopoly decline, and big

business opportunities for the industry to obtain excess profits through monopoly and decreasing corporate profits decline. Consequently their market competitiveness weakened, the influence of big business on the market is declining.

After 2009, with the industry consolidation, the growing new industry standard specifications, and strict implementation of corporate behavior, market concentration of Ningxia dairy industry has undergone significant changes: CR4 declined from 63.98% in 2008 to 2009 to 42.67 percent in 2009, to 46.49% in 2010; CR8 declined from 75.51% in 2008 to 53.65% in 2009, to 57.49% in 2010; two years of market concentration are rapidly declining by about 21%. The market structure has been changed from the oligopoly type 3 to type 4, which indicated that after the industry consolidation, Ningxia dairy industry showed standardization of enterprise scale,

standardization of competition, and state of steady development.

However, since 2011 Yili and Mengniu entered Ningxia market, CR4 sharp rise of 46.49 percent from the 2010 to 2011 of 75.25%, CR8 by a sharp rise of 57.49 percent in 2010 to 81.69% in 2011. For the three consecutive years, they were ranked high stably, and CR4, CR8 were at least 80 %.

It is shown that with join of Yili and Mengniu, which resulted in sharply increased competition in the market, Ningxia dairy market has undergone a sharp polarization phenomenon. It experienced a very serious setback in local enterprises in Ningxia, with a sharp decline in market position, and increasing pressure on business survival. But the other pole is Mengniu and Yili, and they experienced a stable market dominance. The monopoly position of the two dairy giants in the market significantly enhanced, and Ningxia dairy market structure rapidly raised to from oligopoly type 4 to type 3. Mengniu and Yili with 30% market share are ranked as the market leader, they have taken control of 60 percent of the Ningxia dairy market. From 2011--2013 this feature of CR10 look even more apparent.

Based on the analysis of Bain's classification structure of the market, during 2004 - 2013 Ningxia dairy industry experienced a gradual decline in the market structure by the oligopoly type 2 to type 3 and 4, along with join of Yili and Mengniu they returned to type 2. Among them, in 2009 and 2010 CR4 once dropped to 42.67% and 46.49%; CR8 maintained at between 50% -60 %, according to Table 1 in the criteria for the classification, the period was affected by the relevant national policies, and Ningxia Dairy Industry oligopolistic market structure presents type 4, which belongs to a low concentration of oligopolistic market structure. But since 2011, CR4 rose to 75.25% and continues to rise to 80.71% in 2013, an increase of 5.46%; CR8 rose to 81.69%, and continued to rise until 2013 of 83.76 percent, an increase of 2.07%. According to Table 1 in the last three years of data and criteria for the classification in Table 1, since 2011, Ningxia dairy industry generally presents oligopoly market structure and oligopoly type 3

and type 2, belonging to high oligopoly market structure.

The analysis of Herfindahl (HHI) index

Market share and market concentration reflects the absolute concentration of the market, while the Herfindahl index HHI (Hirschman-Herfindahl Index) refers to an industry in the main competition in each market share of total industry revenue or a percentage of the total assets of the square and, mainly reflecting the market in enterprise-scale dispersion and differences, it is a description of the relative concentration of the indicators have, and can better overcome market share and market concentration indicators reflect market forces are not well differentiated inadequate. When we measure the HHI Ningxia dairy industry, due to the limited business-related data collection, making the HHI index calculation becomes very difficult. However, the HHI can approximate calculation method, this paper Alderman methods to estimate the approximate HHI index, according to the US policy practice in the application of the standard, if the HHI is greater than 1800, the market is considered highly concentrated market; HHI index between 1000 and between 1800 when the market is considered to be moderately concentrated market; and when the HHI is less than 1000, the market is classified as a low degree of concentration in the market.

From 2004 - 2013 data results approximate replacement value of the Ningxia Dairy Industry HHI index (Table 3.5) shows, the Ningxia dairy industry HHI index also showed two Alice "yanchi style" trend, which, 2009 between $1000 < HHI \leq 500$, belonging to compete i type 2008 - 2011 lies between $1800 < HHI \leq 1400$, a low oligopoly i type, the rest in 3000 the average annual $> HHI \geq 1800$, belong to high oligopoly ii type, in accordance with the above policy practice in the application of US standards, it is considered Ningxia dairy industry market structure belonging to a high concentration of market structure, this conclusion and the use of market concentration above measurement results are consistent.

Table 2 2004 --2013 Ningxia Dairy Industry HHI index

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
HHIindex	3004.41	1998.76	2095.60	2331.85	1875.06	841.899	1150.578	1792.01	2204.41	2184.73
x	64	91	67	58	47	5				

Source: 2005-2014 China Dairy Statistics, 2005-2014 China Dairy Yearbook, Ningxia milk industry associations, Wuzhong Local Taxation Bureau.

Conclusion

Through research and estimates the project team, we reached the following conclusions. Currently, Ningxia dairy industry belong to a very high degree of concentration of the market structure, is a cross between a competitive market monopoly organization of perfect competition and monopoly between. With the current international, rigid demand of the domestic market growing trend dairy products, in the future the domestic dairy market competition

will be further intensified. On Ningxia region, since 2010, Mengniu, Yili and other domestic dairy giants join, strong opponents of the face of competition, Ningxia sized dairy companies upgrade or if you cannot accelerate industrial restructuring, the implementation of differentiated competitive strategy, will face enormous threats to survival.

To promote better and faster development of Ningxia dairy industry, it recommended that the Government level: 1. Taking Yinchuan, Wuzhong as the core, to speed up the expansion of the

dairy industry to the area suitable Shizuishan, Zhongwei, to further expand the base of high-quality milk Ningxia. 2, to encourage the production of qualifications in line with business assets and brand as a link, through mergers and acquisitions, transfer agreements and other means, and actively carry out corporate mergers and acquisitions, guiding factors of production to the advantage of enterprises and key regional focus. 3, as soon as possible to improve the regulatory mechanism and the profit distribution mechanism between enterprises and farmers, and appropriate tilt to the farmers, and gradually transition to legalization. 4, strengthen industry regulation and industry-standard monitoring system to ensure product quality and safety. 5. Select the appropriate time, according to the industry structure to intervene to avoid monopolies and promote competition in the industry.

Enterprise level: 1, improve the technological innovation and product development capabilities, increase high value-added and personalized product development efforts, and gradually opened the product quality, implementation of competitive differentiation. 2, learning Yilipeilan mode or Mengniu Deluxe model, together with the foreign dairy factories / ranch, or outside the plant / pasture, the introduction of high-quality milk, advanced processing technology and product quality and safety control methods, to achieve domestic brands benign docking with the international brand, accelerate the optimization and upgrading of industrial structure and product structure. 3, expand the brand

influence Ningxia milk, strengthen corporate image and product image. 4, accelerate the improvement of dairy breeds and standardized production system construction, Ningxia dairy products from milk base - table full of quality control. 5, strengthen self-discipline, standardize enterprise behavior and market management, the establishment of social service system.

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Digital Inequalities for Businesses: from Conceptual Extension to a New Managerial Tool

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Abstract: Managers face today a double challenge: to choose and to establish correctly ICTs in their organizations but also to make sure that they are used to create added value for the company. However, the existence of functional and individual inequalities in the access to these tools prevents their diffusion in the organization. Moreover, taking into account the generic characteristic of the ICTs, the corresponding uses will tend to be heterogeneous and in some cases divergent. Thus, According to the success of the process of their specification, the added value creation associated the ICTs use will be more or less wide. All these variations constitute as much dimension of what is agreed to qualify "digital divides" (DD).

Key words: component; Digital divides, digital inequalities in the organizations, ICT access, ICT use, ICT use performance, theoretical extension

Introduction

All the investigations engaged on the digital inequalities are conducted at a global level between developed countries and those in the process of development or on a regional scale between the most stripped and best served, the organizational level and especially the companies one remains unexplored.

The diffusion of innovations theory (Rogers, 1995) and the structuration theory (Giddens, 1984) allow a global analyze of the three types of inequalities but are limited at the organizational scale in the explanation of the technologies absorption capacity in terms of ICT diffusion, access, uses and so far the use performance.

Thus it would be judicious to wonder how digital divides may appear at the organizational level as well as the capacity of the two general theories in explaining inequalities at the organizational scale.

Literature review

The diffusion of innovations theory (Rogers, 1995) enables us to release a conceptualization of the access inequalities. In the other hand the structuration theory is more relevant for the conceptualization the use and the performance inequalities. Table 1 presents the contribution of the two theoretical currents in the conceptualization of the indicated inequalities.

Table 1 Conceptualization of the digital divides at the global level

Basic ideas	Global conceptualization of the digital divides
<p>Theory of the diffusion of the innovations: The IC Ts follow in a quasi-systematic way a series of curves in S. Such curves are characterized by a slow launching phase, then a phase of accelerated growth and in the end a fast decline in the phase of maturity. Rogers, (1995)</p>	<p>The digital divides take form in the launching phase of the numerical services which appears through <i>ICT access inequalities between equipped and non equipped peoples. The equipped one will be thus in a relational network of knowledge, whereas those who are not will be excluded from this dynamics.</i> However, such inequalities are intended to be reabsorbed through the time. Rogers, (1995)</p>
<p>The structuration theory: The perceived opportunities and the satisfaction level of some waiting will create more or less developed dynamics of the ICT uses. De Sanctis and Poole (1994)</p>	<p>The digital divides are defined here through the <i>diversity of the ICT uses by the organizations and the individuals. Such uses can be explanatory of some inequalities as well as some risks of exclusion.</i> Hacker and Van Dijk, (2000)</p>
<p>The adaptive structuration theory:</p>	<p>The digital divides are here defined through the <i>divergence in the ICT use</i></p>

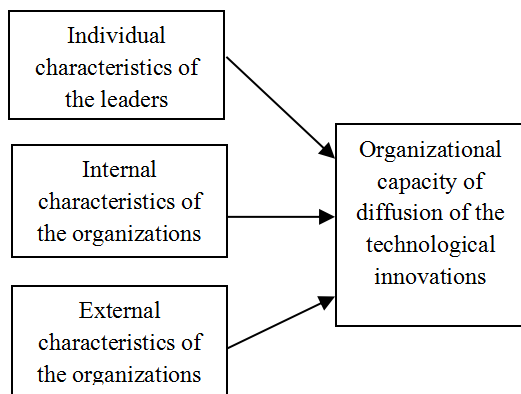
Generally, technology will be used in the direction of increasing the resources of the most endowed users Orlikowski, (1992)

performances. Such divergence can be expressed in terms of a differentiated contribution of the ICT in the individuals and the organizations performances. Bresnahan et al., (2002); Greenan et Mairesse, (2004)

However, as we can note through this summary table, the conceptualization of the digital inequalities described at the global level remains insufficient for their apprehension at the organizational level. Indeed, the contribution of the diffusion of the innovations theory and the structuration theory are limited to the analysis of the organizational absorptive capacity of the technological innovations without explaining or characterizing the inequalities which may result from this. Such a capacity can be defined as: "the aptitude of a company to acquire (1) new technologies, to assimilate them (2) then to transform them (3) and finally to exploit them (4) in a productive and a commercial purposes"(Zahra and George, 2002).

Discussion and theoretical extension

Figure 1 Organizational capacity of diffusion of the technological innovations



Brousseau and Rallet (1997) add that this organizational capacity of diffusion of the technological innovations have to be supported also by some complementary investments. It appears than that the variation of the organizational capacity of technological innovations diffusion and the availability of the complementary investments at the functional scale could constitute a source of ICT access inequalities.

In the same direction, Rogers (1995) ads, concerning the assimilation of the technological innovations, that the individual characteristics of the social system can also slow down or facilitate the introduction of the technological tools and their adoption.

Figure 3 The uses formation at the functional level

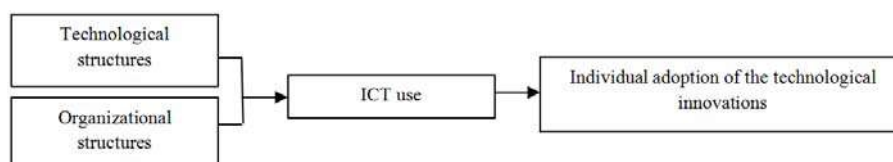
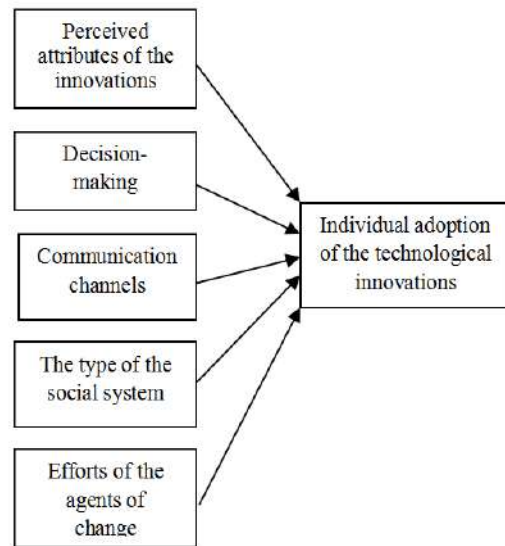


Figure 2 Individual level of adoption of the technological innovations

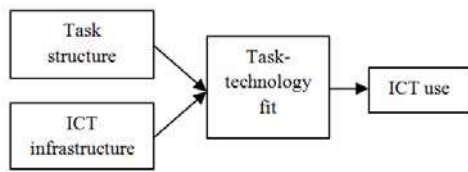


Since these characteristics tend to be highly heteroclitic and strongly conditioned by some political stakes not generally convergent, the levels of adoption and participation in the introduction of the technological innovation will tend to be unequal compared to the individual needs of the tasks realization. This variability in the degree of participation as well for the introduction of the technological tools as for its adoption can be in his turn favorable to the existence of some access inequalities.

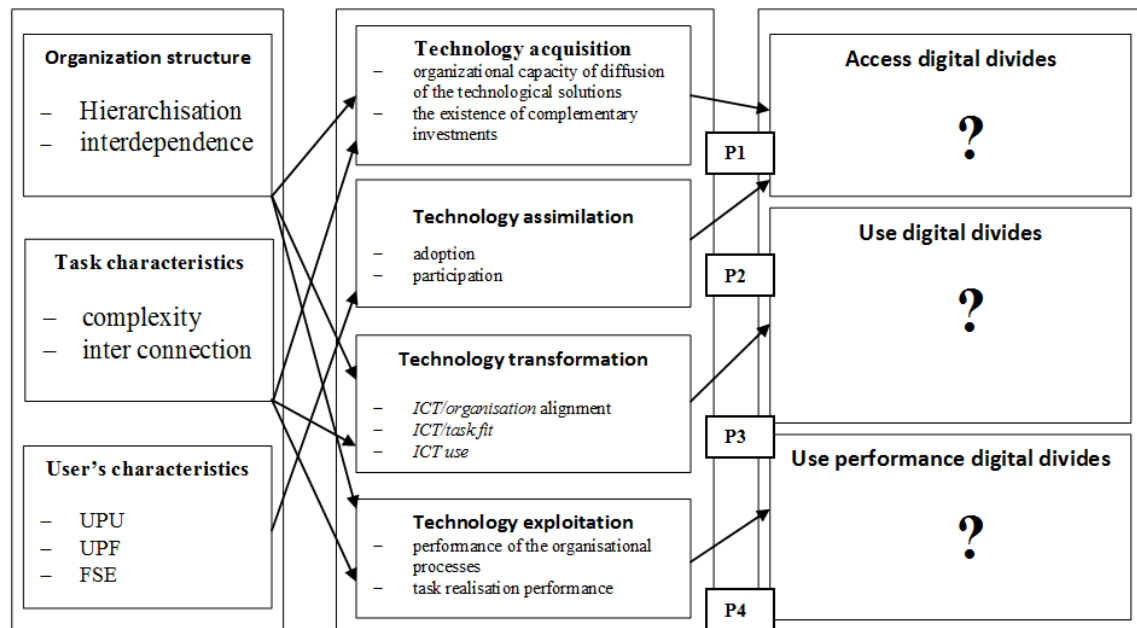
The transformation of the technological innovation was studied from the point of view of "the duality of the structure" (Giddens, 1984). In this direction, the formation of the uses is regarded, at the functional level, as the resultant of the alignment level between the technological and the organizational structures (De Vaujany, 2000) [[F., X., De Vaujany, "Use of information technology and creating value for the organization: a proposed analytical structurationist based on key factors of success." AIMS Ninth International Conference of Strategic Management, May 24-25-26, 2000, Montpellier.]] or, from the individual's level, as the degree of coherence between the task structure and the ICT infrastructure (Goodhue and Thompson, 1995).

Source: The production and reproduction mechanisms of the social structures. [De Vaujany, 2000]

Figure 4 The uses formation at the individual level



Source: The reduced model: «Task technology fit» (TTF)



-(P1) During the acquisition of the technological innovation, the low organizational diffusion capacity of the technological innovation as well as the inexistence of complementary investments is likely to result by some ICT access inequalities.

-(P2) The absence of participation in the process of introduction of the technological innovation as its differentiated adoption limits its assimilation by the potential users causing by the way the emergence of ICT access inequalities.

-(P3) At the level of the technological innovation transformation, the failures in the digital process adaptation and applications specification will be translated into ICT use inequalities.

-(P4) In the exploitation phase of the technological innovation, the very differentiated level of the individual performances as well as for those relating to the organizational procedures results in to ICT use performance inequalities.

Such stages of the absorption process are systematically

[Goodhue et Thompson, 1995]

This research model can now enable us to focus the attention on the various manifestations of the digital inequalities at the organizational scale and this according to the different stages of the technological innovation absorption process. The genesis of these digital divides is thus recalled through the following proposals:

reported to the organizational context in terms of structural characteristics and those of the tasks realization.

Conclusion

Finally, we can say that the integration of the diffusion of the innovations and the structuration theories appear also relevant for the analysis of the digital divides on the firm level. Considering the delay that they show in the computerization of their management systems, such a research prospect appears very useful to analyze the digital inequalities likely to handicap the local firms in their process of correction.

The access, use and performance digital divides (output) are the consequences of the organization, the tasks and the user's characteristics (input) but also of the absorption process engaged by the ICT acquisition, assimilation, transformation and exploitation (process).

But, even if the whole of the components of our model dealing with the context of implementation and use of the technological innovation as well as with the process of their absorption are sufficiently studied empirically, the resultant gaps remain empirically unexplored in the organizational level.

Such characterization, whose genesis is explained by the technological absorption process, could be more relevant if it leads to the substantiation of the noted inequalities. The realization of an instrumental case study constitutes for this purpose a future way of research and a natural prolongation of this conceptualization work.

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Detection System for the Cadmium Ion Concentration Based on the Android Platform

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Abstract: Cadmium, the main heavy metal in the water pollution, can cause a serious damage to human body once absorbed by humankind. The existing detection methods are time-consuming and require expensive bulky equipment. Besides, the results obtained from these methods are easily affected by the surrounding environment. To solve these problems, a detection system for cadmium concentration was designed and implemented based on the Android platform. First the real-time image of the colloidal gold immunochromatographic strips was processed and analyzed using this system in a closed environment. Then a standard curve of cadmium concentration icon was made in accordance with the relationship between concentration of cadmium and the color of strips in T-line area. As a result, cadmium concentration of samples can be read in this curve. This system is easy to carry with small size and low in cost. It can detect cadmium concentration icon of the samples within 15 min and is of higher precision with 10 % of deviation and has good scalability and availability with 90-110 % of recovery and 0 - 5 % of coefficient of variation.

Key words: cadmium Ion, concentration, Android Integrated Optical Density (IOD), ImmunoChromatographic Strips (ICS)

Introduction

The soil and water pollution caused by heavy metal become increasingly serious. Many experts, like Aragay(2010), Bhagure(2011) and Zakir(2011), have reported that the heavy metal accumulated in the food chains have huge potential danger to the food security and once absorbed by our humankind, they can cause great damage to our human body. The Cd²⁺, the most dangerous of five heavy metal, which is evaluated as the major pollution by the United Nations Environment Program, is the main heavy metal in the water pollution. Cadmium can produce stimulating effects on the respiratory passageways, leading to the pneumonia and emphysema. Should it be absorbed by human beings through food, enterogastitis would cause. Patients who are poisoned by the cadmium will be anaemia because of the damage of Kidney. If the amount of cadmium is accumulated over a certain value, it can result in osteomalacia and osteoporosis and even cancer (Zakir, 2011; Devi, 1995; Bernard, 2008). Therefore, it is of great importance to make analysis about cadmium concentration in the water for the health of human beings.

To detect cadmium concentration, various normal methods are available, including atomic absorption spectroscopy (AAS) (Legrand, 2005), atomic emission spectrometer (ICP-AES)(Hoa et al., 2010), mass spectrum(ICP-MS)(Hightower et al., 2003), Atomic

Fluorescence Spectroscopy(AFS)(McDowell et al, 1999-200) and Graphite furnace atomic absorption spectrometry(GFAAS). Although all these methods mentioned have a high sensitivity and accuracy, they are not only too expensive and time-consuming but failed to be applied in large scale only limited in labs due to the higher requirements to the users (Salvador, 2004; Forrer, 2001).



Fig. 1 ICP-AES Analyzer

As the cadmium pollution of the water has become increasingly of a concern, a detection method for the cadmium concentration which is swift and instant and stable should be established. At present, colloidal gold immunochromatographic strips are frequently used for the fast detection of cadmium concentration. The result of cadmium concentration will be showed within 15 min. Thus, this

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method is quicker and more convenient (Adaris, 2013a, b). However, the colloidal gold immunochromatographic strips cannot be used for the quantitative analysis but only for the qualitative analysis. Moreover, it appears to be particularly affected by the light from the surrounding environment, limiting its application. Furthermore, the chart scanner used for the quantitative analysis is high in price and is not easy to carry because it should be connected with computer when at work. To reach the goal of monitoring the amount of cadmium in environmental water samples in an accurate and swift manner, a chart scanner which can be read using mobile phone was designed and made. The mobile phone can provide steady light in a stable environment and the mobile phone camera can take photos for the strips, minimizing the impact of light from the environment. A software system based on the Android was designed. Thus, the quantitative analyses that can be made for the result of detection are able to read in time.

The composition of this system

This system consists of three parts: detection strips, environmental devices and Android measuring software system. With the detection strips inserted into the bottom of environmental devices and a mobile phone fixed on the top of environment, the phone camera is able to take photos for the detection strips in time. The environmental device will be recharged using USB. Nowadays, as most phones are using USB as a charger device, this device can be powered using mobile phone. Therefore, this system is practical, which is easier to carry with small scale and needs no extra charge.

Detection strips

The colloidal gold immunochromatographic strips is shown as Fig. 2. A drop of water dripped in the hole of samples will move forward due to the capillary action and the detection results can be read within 15 min. With the further increase of cadmium concentration, the color in the T-line areas of the detection strips will be gradually pale. On the contrary, the decrease of cadmium concentration lead to the dark color in the T-line areas of the detection strips. In other words, the concentration of the samples is proportional to the color of strips in the T-line areas. Therefore, a standard curve can be made based on the relationship between the known concentration of the reagent and its corresponding color in the T-line areas. Based on this curve, the value of concentration of a sample to be tested can be calculated according to its color in T-line areas.



Fig. 2 the detection strips. The bottom area is a sample pad where the reagent of cadmium to be detected drips; the top area is the T-line areas marked by the letter "T".

Environmental device

The phone card reader designed is shown as in Fig. 3. There is a groove in the bottom of the closed box. Once the test strip is inserted into the groove, the T line will be aligned with the phone camera. A LED lamp and the mobile phone installed in the box will be considered as the light and charger needed, respectively. After 15 min, inserting the strips dripped a reagent into this device and turning on the LED lamp, the real-time pictures of the strip will be shown and analyzed. Then the measurement results will be got.



Fig. 3 the environmental device. A groove in the bottom is used for the insertion of the detection strips. A phone cover is employed to fix the phone, making the T line aligned with the camera. LED switch and USB interface are designed in the back.

Android platform

The android system is an open source system designed by Google. It is favored by many manufactures because of the feature of open source and also wins a large consumer group due to the low price. As a result, it accounts for a large percentage of the market share. This detection system designed on the basis of the Android system has further lowered the barrier to the users.

The design of software system

This software system whose flow chart is shown as Fig. 4 has two functions, i.e., drawing a standard curve and measuring the concentration of a reagent, helping to read the color of strips in T-line areas (see in Fig. 5).

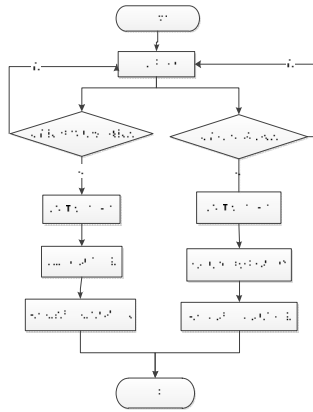


Fig. 4 the flow chart of measurement software system

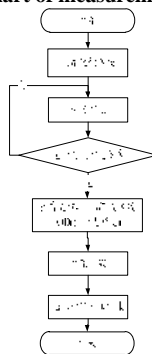


Fig. 5 the flow chart of reading the color of T-line areas

The initialization of the camera

The Android system allows users to communicate with each other by real-time video through the Camera model. It requires to add users-permission to the AndroidManifest.xml in order to taking advantage of the Camera model, which is described as follows

```

<uses-permission
android:name="android.permission.CAMERA"/>
<uses-feature
android:name="android.hardware.camera" />
    
```

SurfaceView can capture and preview and show pictures by using camera. The procedures of the initialization of camera using the surfaceCreated method is depicted as follows: open the camera and then get the current default values of the Camera Parameters through the method of “get Parameters” in the Camera; set a proper preview Fps range by repeating the procedures of getting Parameters; preset the format of and preview size of image by using the method of “set Picture Format” and “set PreviewSize”, respectively.

As the size of strips is relatively small, the image is too small to be effectively analyzed in the default value. Thus, it is necessary to set the format of picture to change the size of pictures previewed. Therefore, to preview a clear image, the Focus model macro need changing into the macro length by taking advantage of the

parameters and then the method for setting Zoom is employed to set the maximum macro length. Finally, the method of camera autoFocus will be employed to make the AutoFocusCallback interface active. It notes that the SurfaceView should be employed to show the image before previewing a certain picture. It can be done by setting the Preview Display and then starting the Preview model.

The real-time preview and format conversion

After completing the set of the camera parameter, the video streams of the preview can be got by the interface of the Preview Callback where the Preview Frame includes a date. As the format of Preview Frame is YUV420SP, while, the formats of image analysis and process are RGB, therefore, it should convert the YUV420SP into the RGB.

YUV is a method used for the color coding by the European Television system, whose bandwidth is fairly smaller than that of RGB. The letter “Y” represents the signal of Luma, i.e., the gray level. The letters of “U” and “V” refer the Chrominance or Chroma (Zhang, 2013; Tang, 2014). YUV420SP belongs to the YUV format only with a few differences in the arrangement of pixel. Therefore, the YUV and RGB can be converted as follows:

$$R = Y + 1.402(V - 128) \tag{1}$$

$$G = Y - 0.34414(U - 128) - 0.71414(V - 128) \tag{2}$$

$$B = Y + 1.772(U - 128) \tag{3}$$

The image process and analysis

The color of images in the T-line areas should be measured as the format of pictures converts into the RGB. The Integrated Optical Density (IOD) will be used for the precise color measurement.

Optical density

The optical density is also called absorbance (A). The optical density (OD) is calculated as the following equation according to the Beer-Lamb theorem.

$$OD = \log(I_o / I) = KCL \tag{4}$$

Here: “I₀” and “I” refer the gray value of incident and emergent light, respectively. “K”, “C” and “L” present the absorptivity, concentration and thickness, respectively. I₀ is the gray value of the background of strips as the incident light is not pure white (gray value = 225). The color of strips in T-line areas is pink. The gray value only shows the light change of a image and cannot reflect the changes of color. The results of repeated experiments suggest that the value of R (red)-component as the value of “I” can represent the

change of color of the T-line areas more accurately. Therefore, the equation (4) can be converted into equation (5).

$$OD = \log(I_{background} / I_R) \quad (5)$$

Here: the $I_{background}$ represents the gray value of the background of strips and I_R the value of R-component of the RGB in the T-line areas. The higher the value of OD, the darker the color of T-line areas and the lower cadmium concentration are to be observed.

Integrated optical density

The different color of every pixel in the T-line areas with the darker color in the center and the lighter color in the margin mean that the values of OD of every pixel are not the same. The integrated optical density is employed to accurately reflect the color change of the T-line areas.

$$IOD = \sum(OD * Area) \quad (6)$$

The value of IOD, equal to the sum of OD values of all pixels, is proportional the cadmium concentration.

The design of software system

A standard curve is made according to the cadmium concentration and its corresponding IOD value which is measured though the known concentration of a reagent.

Drawing a standard curve

Ten different kind of concentration of the cadmium reagents were dripped into ten strips located on the pad, respectively, with 0 nm/ml, 3 nm/ml, 6 nm/ml, 12 nm/ml, 24 nm/ml, 48 nm/ml, 96 nm/ml, 192 nm/ml, 384 nm/ml and 768 nm/ml, respectively. The specific procedures were shown in Fig. 6 and 7. After 15 min, the strips were inserted into the groove at the bottom of this device. Subsequently, opening the LED lamp, the system starts. Then, an interface of this system was presented at Fig. 8. Clicking the button, the IOD values of T-line areas were measured. In order to reduce the measurement errors, the IOD values of T-line areas were measured three times and the average of these IOD values was considered as the final value. This system automatically recorded the concentration of the cadmium reagents and its corresponding IOD values, thus a standard curve were made as shown in Fig. 9, with the abscissa and ordinate standing for the concentration(ng/ml) and corresponding IOD values.



Fig. 6 taking out the strips and droppers.

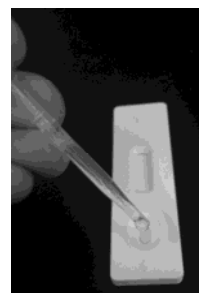


Fig. 7 dripping the reagent into the sample pad.

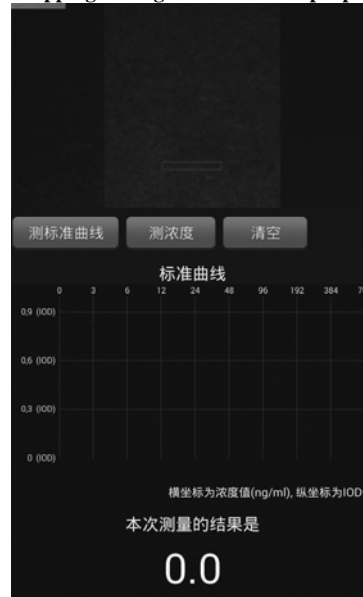


Fig. 8 the interface of the system; the real-time picture of the strips taken by the phone camera-on the top; the place for strips(inserting the strips at the bottom of this equipment with the T-line area aligning to the red box) -the highest area of this picture; the standard curve(with the abscissa and ordinate standing for the concentration(ng/ml) and corresponding IOD values.) -in the middle; the final results -at the bottom.

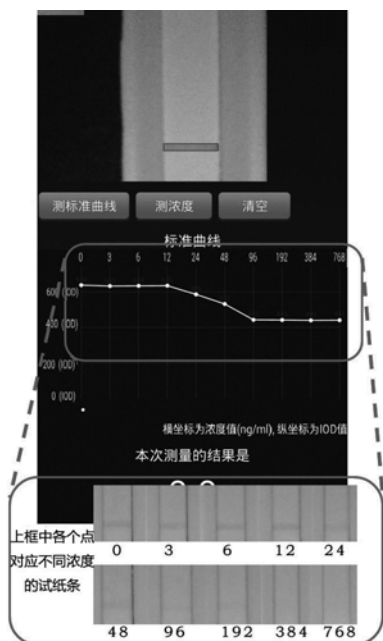


Fig. 9 the standard curve; the value of concentrations of all strips , staning for the values of abscissa, respectively-in the bottom.

The cadmium concentration is inversely proportional to the IOD values in the concentration of 12 ng/ml - 96 ng/ml. While, if < 12 ng/ml and > 96 ng/ml, the IOD values almost remain still with the changes of concentration, which is consistent with the real situation.

The actual measurement

The concentration of any reagent is able to be measured with the standard curve. A drop of reagent (25 ng/ml) was dripped into a strip

pad, whose procedure is the same as those shown in Fig.6 and 7. Subsequently, the actual concentration of the reagent will be measured by inserting the strip into the bottom of this device and activating this device and clicking the concentration button. The result of measurement shown in Fig. 10 was 27 ng/ml. The error is small enough to be ignored.

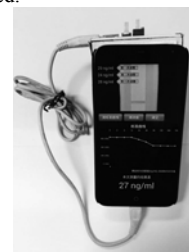


Fig. 10 the final measurement result.

To further test the applicability and reliability, three kinds of water sample collected from Fen River and Pearl River and running water were tested by using this system and the ICP-AES method which is one of the typical methods to be traditionally used for the detection of heavy mental, respectively. Then, a comparison of the Recovery and CV were made and the results shown in Table 1. It notes that the Recovery = the measurement value / the actual weight of the samples used $\times 100\%$, used for the observation of the ratio of deposited samples used for the detection of cadmium and the CV = standard deviation (SD) / Mean $\times 100\%$, used for the investigation of the dispersion.

Table 1 the comparison of the measurement results obtaining form ICP-AES method and this system

Resource	The concentration of the standard reagent(ng.mL-1)	The measurement concentration obtained from the ICP-AES method(ng.mL-1)	The measurement results obtained from this system(ng.mL-1)	Recovery (%)	CV(%)
Fen-River	0	2.76	1.37±0.15		
	100	101.85	104.70±2.	104.70±2	1.91
	200	208.45	212.09±6.27	106.045±3.135	2.96
Pearl River	0	0.47	0.99±0.40		
	100	107.97	107.88±3.73	107.88±3.73	3.46
	200	202.73	205.24±12.08	102.62±6.04	5.89
Running water	0	0.21	0.48±0.29		
	100	101.97	103.46±0.78	103.46±0.78	0.75
	200	203.86	209.61±6.34	104.805±3.17	3.02

From the above Table results, the Recovery ranges from 90 to 110 % and the CV varies from 0 to 5 %. They all are within the acceptable limits with Recovery ranging from 70 to 110 % and CV

$\leq 10\%$ and close to the results obtained from the ICP-AES method. Besides, it only needs 15 min. All the above findings prove that this software system is available.

Conclusion

Heavy metal, especially for the cadmium, is harmful to our human beings. The testing system based on the Android platform has overcome the disadvantages of the existing systems with the characteristics of high price, bulky size and slow detection of cadmium concentration. It can measure the concentration of samples on site and get results within 15 min. Some advantages that make the large-scale use of this system feasible include: it is low in cost and easy to carry and applicable to other reagent with corresponding strips; equipped with position system, it can regularly do sample inspection for some regions and deliver the data to the background. Once should the data go outside of the safe range, departments concerned would be alarmed to take measures to deal with it.

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Daily Rhythms of oxygen consumption in freshwater crab, “*Barytelphusa jacequemontii*” & Prawn, “*Macrobrachium lamerrli*”.

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Abstract: Biological rhythms are the equal combination of ecological & physiological events producing the internal sense of time in living being. The internal metabolic rate is influenced by the degree of voluntary activity that is affected by environmental conditions & is associated with changing season time of day or month and body size. Bliss and Montel (1968) found that, in general, the smaller individuals within a species or a small sized species have higher metabolic rate per unit rate and time than larger animals. Dehnel and Wines (1960) observed the distinct diurnal rhythm of oxygen consumption. The rhythm is characterized that maximum utilization is at 8.00 to 9.00 a.m. by a second smaller peak is at 10.00 to 11.00 p.m. at midnight. Several workers carried out such type of studies [Diwan and Nagbhusnam (1972)]. The crab, *B. jacequemontii* were collected and kept for laboratory acclimatization. The pH & temperature were 7.2 & 15.0 °C respectively. All the crabs were in the size range was 3.0 cm. to 7.0 cm. The experiments were performed on 30 animals and the oxygen consumption of each individual was measured by Wrinkler's Method (1960).

Key words: oxygen consumption, aquatic respiration, respiration, oxygen

Introduction

Numerous water breathers exhibit a gas exchange regulation strategy that maintains P_{O_2} partial pressure, P_{O_2} (Oxygen) in the arterial blood within the range 1-3 kpa at rest during the daytime. In night active crustacean, they examined whether this could limit the rate of O_2 consumption. O_2 consumption of locomotor muscles and / or the whole body as part of a coordinated response to energy conservation.

Carvalho et al (1997) showed the routine metabolic and ammonia excretion rates were measured during minimum but quantities in the shrimp, *Xiphopenaeus kroyeri* at five different temperatures (20, 22, 25, 28, 30 °C) in a flow through system. The animals rapidly achieved uniform rates, showing little handling stress, which may represent an experimental artifact that is responsible for wide variation in the measurement of routine rates. A circadian rhythm of R and U rate, was detected as they were significantly higher during dark conditions.

Materials and Methods

The crab, *B. jacequemontii* & prawn, *M. lamerrli* were collected and kept for laboratory acclimatization. The pH and temperature were 7.2 and 15 °C respectively. All the crabs were in the size range was 3.0 cm to 7.0 cm. The experiments were performed on 30 animals. The oxygen consumption of individual animals was measured by Wrinkler's method (1960). The crabs were allowed to settle for 24 hrs. before recordings were made, and then transferred within 1 hr. to experimental jar. The oxygen consumption measurement were made

from morning 9.00 to 10.00 a.m. and measurements were performed 2, 4, 6, 24 and 48 hrs. under circadian clock.

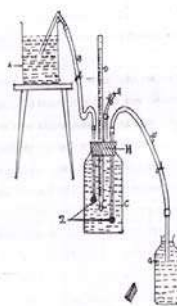


Diagram showing the arrangement of the respiratory chamber

- A - Reservoir
- B - Inlet tube
- C - Respiratory chamber
- D - Thermometer
- E - Air tight tube
- F - Out-let tube
- G - Sample collecting bottle
- H - Rubber cork

Experiments & Results

1 Effect of temperature on oxygen consumption of Crab, *Barytelphusa jacequemontii*

The crab were taken in each weight group i.e. between 0.310 and 0.320 gms and smaller prawns weighting between 0.180 to 0.190 gms, and were exposed to the freshwater pre-adjusted to varying temperatures (thermostatically adjusted). Oxygen consumption was measured at 15, 20, 25, and 30 °C. The room temperature during the course of experiment was 25 ± 1 °C. The results are represented in Table 1A. The Table shows that as the temperature decreased from the control (25 ± 1 °C), the rate of oxygen consumption decrease steadily, but as the temperature increased, the rate of oxygen consumption also increased.

Table 1 B indicates the values of Q_{10} . In the bigger prawns Q_{10}

10 at high temperature ($25 \pm 30^\circ\text{C}$) was 2.978 and at low temperature ($15 \pm 25^\circ\text{C}$) was 1.809, whereas in the smaller Crabs, Q_{10} at high temperature ($25 \pm 30^\circ\text{C}$) was 1.482 and at low temperature ($15 \pm 25^\circ\text{C}$) was 1.239.

2 Oxygen consumption of *Berytelphusa juqueumontii* at different sodium chloride concentrations

The prawns are exposed to five different concentrations of NaCl; 0.1%, 0.2%, 0.3%, 0.4% and 0.5%. The first sets of observations were made using from the 25°C aquarium containing tap water. This served as control. After measuring the oxygen consumption of prawns in normal tap water, experiments were conducted on prawns exposed to above mentioned salt concentrations. The results are given in Table 2. It is evident from the result that oxygen consumption increases steadily from 0.1% to 0.5% of salt concentration.

3 Influence of pH of the media on oxygen consumption

The oxygen consumption of the was determined at 9 different pH media, i.e. 5.0, 5.5, 6.5 (Control), 7.0, 7.5, 8.0, 8.5, 9.0 and 9.5 respectively, at the laboratory temperature. The results given in Table 3, demonstrate that in acidic pH the oxygen consumption decreased when compared with the control, at pH 7.0 and 7.5, the respiration did not show much variation. However, high alkaline pH tend to decrease the oxygen uptake.

4 The influence of oxygen tension of the medium on the oxygen consumption

The oxygen consumption of the prawn was measured at six different oxygen concentrations i.e. 1.6; 2.5, 3.5, 4.6, 5.4, ml/l. The results presented in Table 4 reveals that oxygen consumption did not vary much between oxygen tension of 4.6 to 6.5 ml/l. At low oxygen tension of the medium, the rate of oxygen consumption decreased considerably. With the rise in oxygen tension the rate of oxygen consumption increased.

5 Effect of decision on oxygen consumption

The oxygen consumption of normal crabs were measured first and this served as control. 10 prawns were taken from the 25°C aquaria, blotted thoroughly with filter paper and exposed to the atmospheric air. Every 15 minutes intervals the crabs exposed to the atmospheric air, were taken and their oxygen consumption was measured by patting them respirometer. The results are shown in table 5. It is seen from the table that the rate of oxygen consumption was increased as the time of exposure to the atmospheric air increased.

6 Effect of starvation on oxygen consumption

The results are shown in Table 6. It is seen that the oxygen consumption was reduced to nearly 50% after starving the Crab for 14 days. The oxygen consumption went on decreasing as the days of starvations increased.

7 Oxygen consumption in relation to body weight

Metabolism varies according to the body weight and sex. This experiment was conducted on Crab of both to sexes separately and

the results are shown in Table 7 A and 7 B, table 7 A, shows the results of weight specific oxygen consumption of female prawns and that of table 7 B, shows the results of weight specific oxygen consumption of male prawns. The female prawns weighing between 0.168 to 0.357 gms were grouped at 0.024 gms intervals (average) and their respiratory rates were measured. Likewise, male prawns belonging to the weight groups of 0.075 gms to 0.50 gms were chosen for the experiments. They were grouped at 0.012 gms intervals (average) and their respiratory rates were measured.

The weight specific oxygen consumption for smaller female Crabs (0.168 gms) was found to be 0.51 ± 0.004 ml/gm/h/1, whereas for the bigger female prawns (0.357 gms), it was 0.015 ± 0.007 ml/gm/1 whereas for the bigger individuals (0.150 gms), the rate of oxygen consumption was found to be 0.045 ± 0.06 ml/gm/h/1.

Thus, the experiments clearly demonstrated that the rate of oxygen consumption was decreased as the body weight increased irrespective of sex of the individuals.

8 Oxygen consumption in relation to sex

In this experiment male and female Crabs of almost of same weight groups were taken and their oxygen consumption was measured. The results are given in Table 8. It is quite obvious from the table that the rate of oxygen consumption was found to be more in the male prawns than the females.

9 Diurnal rhythm in oxygen consumption of

The results are given in Table 9. It is evident from the table that the rate of oxygen consumption was maximum at 8.00 a.m. and minimum at 8.00 p.m. Oxygen consumption went on increasing from 8. P.m. and reached its peak at 8.00 a.m. and then slowly declined by 8.00 p.m. so there appears to be a distinct rhythm in oxygen consumption of.

Results

1 Effect of temperature on oxygen consumption of *Macrobrachium lamerrli*

The prawns were taken in each weight group i.e. between 0.310 and 0.320 gms and smaller prawns weighting between 0.180 to 0.190 gms, and were exposed to the freshwater pre-adjusted to varying temperatures (thermostatically adjusted). Oxygen consumption was measured at 15 $^\circ\text{C}$, 20 $^\circ\text{C}$, 25 $^\circ\text{C}$ and 30 $^\circ\text{C}$. The room temperature during the course of experiment was $25 \pm 1^\circ\text{C}$. The results are represented in Table 1A. The Table shows that as the temperature decreased from the control ($25 \pm 1^\circ\text{C}$), the rate of oxygen consumption decrease steadily, but as the temperature increased, the rate of oxygen consumption also increased.

Table.1.A Effect of temperature and weight on oxygen consumption of *Berytelphusa jaequemontii*

Temperature	:	$25 \pm 1^\circ\text{C}$
PH	:	3.6
Oxygen tension	:	6.9 ml/l

Sex		Female	
Sr. No.	Average weight of prawns in (gms)	Temperature of the dedium in (°C)	Oxygen consumption MI/g/h/1 ± S.D.
1	0.315	0.315	0.034 ± 0.008
2	0.315	0.315	0.046 ± 0.004
3	0.315	0.315	0.051 ± 0.009
4	0.315	0.315	0.088 ± 0.005
5	0.185	0.185	0.073 ± 0.004
6	0.185	0.185	0.181 ± 0.002
7	0.185	0.185	0.092 ± 0.007
8	0.185	0.185	0.011 ± 0.008

Table 1 B indicates the values of Q₁₀. In the bigger prawns Q₁₀ at high temperature (25 ± 30°C) was 2.978 and at low temperature (15 ± 25°C) was 1.809, whereas in the smaller prawns, Q₁₀ at high temperature (25 ± 30°C) was 1.482 and at low temperature (15 ± 25°C) was 1.239

Table.1 B Q₁₀ Oxygen consumption of Macrobrachium lamerrii as a function of weight and temperature

Sr. No.	Weight of the prawn (in grams)	Q 10 at		
		15-20°C	20-25°C	25-30°C
1	0.315	1.809	1.229	2.978
2	0.185	1.231	1.290	1.482

Table.1 Effect of different sodium chloride on oxygen consumption of Berytelphusa jaequemontiii

		Temperature	:	25 ± 1°C
		PH	:	3.6
		Oxygen tension	:	6.9 ml/1
		Sex	:	Female
Sr. No.	Average weight of Crabs (in gms)	Temperature of the dedium in (°C)	Oxygen consumption ± S.D. MI/gm/h/1	
1	215.10	15	10.034 ± 0.034	
2	210.20	20	10.046± 0.001	
3	210.25	25 (Control)	09.051 ± 0.034	
4	200.30	30	8.088 ± 08.088	
5	175.25	15	7.073 ± 07.073	
6	165.20	20	6.081 ± 06.081	
7	160.15	25 (Control)	5.092 ± 05.092	
8	157.10	30	4.011 ± 04.011	

Table.1 B Q 10 Oxygen consumption of Berytelphusa jaequemontiii as a function of weight and temperature

Sr. No.	Weight of the prawn (in grams)	Q 10 at		
		15-20°C	20-25°C	25-30°C
1	0.215	1.809	1.229	2.978
2	0.285	1.231	1.290	1.482

Table.1 A Effect of temperature and weight on oxygen consumption of *Berytelphusa jaequemontiii*

Temperature	:	25 ± 1°C
PH	:	3.6
Oxygen tension	:	6.9 ml/1
Sex	:	Female
Sr. No.	Average weight of Crabs (in gms)	Oxygen consumption ± S.D. MI/gm/h/1
1		0.044 ± 0.006
2	0.1	0.046 ± 0.004
3	0.2	0.054 ± 0.005
4	0.3	0.064 ± 0.007
5	0.4	0.095 ± 0.008
6	0.5	0.106 ± 0.005

2 Oxygen consumption of *Macrobrachium lamerrii* at different sodium chloride concentrations

The prawns are exposed to five different concentrations of NaCl; 0.1%, 0.2%, 0.3%, 0.4% and 0.5%. The first sets of observations were made using from the st^oCk aquarium containing tap water. This served as control. After measuring the oxygen

consumption of prawns in normal tap water, experiments were conducted on prawns exposed to above mentioned salt concentrations. The results are given in Table 2. It is evident from the result that oxygen consumption increases steadily from 0.1 % to 0.5 % of salt concentration.

Table.2 Effect of different sodium chloride consumptions on the oxygen consumption of *Macrobrachium lamerrii*

Temperature	:	26 ± 1°C
PH	:	4.6
Oxygen tension	:	6.8 ml/1
Average weight	:	0.268 gms
Sex	:	Female
Sr. No.	Salinity (X)	Oxygen consumption ± S.D. MI/gm/h/1
1	Control	0.044 ± 0.006
2	0.1	0.046 ± 0.004
3	0.2	0.054 ± 0.005
4	0.3	0.064 ± 0.007
5	0.4	0.095 ± 0.008
6	0.5	0.106 ± 0.005

Table.2 Effect of different sodium chloride consumptions on the oxygen consumption of *Berytelphusa jaequemontiii*

Temperature	:	26 ± 1°C
PH	:	4.6
Oxygen tension	:	6.8 ml/1
Average weight	:	0.168 gms
Sex	:	Female
Sr. No.	Salinity (X)	Oxygen consumption ± S.D. MI/gm/h/1
1	Control	10.044 ± 0.006
2	0.1	10.046 ± 0.004
3	0.2	10.054 ± 0.005
4	0.3	10.064 ± 0.007

5	0.4	10.095 ± 0.008
6	0.5	10.106 ± 0.005

3. Influence of pH of the media on oxygen consumption

The oxygen consumption of the was determined at 9 different pH media, i.e. 5.0, 5.5, 6.5 (Control), 7.0, 7.5, 8.0, 8.5, 9.0 and 9.5 respectively, at the laboratory temperature. The results given in Table

3, demonstrate that in acidic pH the oxygen consumption decreased when compared with the control, at pH 7.0 and 7.5, the respiration did not show much variation. However, high alkaline pH tend to decrease the oxygen uptake.

Table.3 Effect of the different pH of the media on oxygen consumption of Macrobrachium lamerrlii

Temperature	:	27 ± 1°C
PH	:	4.6
Oxygen tension	:	6.8 ml/1
Average weight	:	0.168 gms
Sex	:	Female

Sr. No.	Salinity (X)	Oxygen consumption ± S.D. ml/gm/h/1
1	6.4 Control	0.024 ± 0.007
2	5.0	0.017 ± 0.006
3	5.5	0.019 ± 0.005
4	7.0	0.024 ± 0.006
5	7.5	0.023 ± 0.008
6	8.0	0.021 ± 0.004
7	8.5	0.018 ± 0.006
8	9.0	0.015 ± 0.007
9	9.5	0.012 ± 0.008

Table.3 Effect of the different pH of the media on oxygen consumption of Berytelphusa jaequemontiii

4. The influence of oxygen tension of the medium on the oxygen consumption

The oxygen consumption of the prawn was measured at six different oxygen concentrations i.e. 1.6, 2.5, 3.5, 4.6, 5.4, ml/1. The results presented in Table 4 reveals that oxygen consumption did not

vary much between oxygen tension of 4.6 to 6.5 ml/1. At low oxygen tension of the medium, the rate of oxygen consumption decreased considerably. With the rise in oxygen tension the rate of oxygen consumption increased.

Table.4 Effect of the oxygen tension of the medium on the oxygen consumption of Macrobrachium lamerrlii

Temperature	:	26 ± 1°C
PH of H ₂ O	:	6.8
Oxygen tension	:	4.6 ml/1
Average weight	:	0.270 gms
Sex	:	Female

Sr. No.	Salinity (X)	Oxygen consumption ± S.D. ml/gm/h/1
1	1.6	0.006 ± 0.007
2	2.5	0.022 ± 0.006
3	3.5	0.042 ± 0.008
4	4.6 Control	0.069 ± 0.005
5	5.4	0.071 ± 0.005
6	6.5	0.073 ± 0.007
7	7.0	0.077 ± 0.006

Table.4 Effect of the oxygen tension of the medium on the oxygen consumption of Berytelphusa jaequemontiii

Temperature	:	26 ± 1°C
PH of H ₂ O	:	6.8
Oxygen tension	:	4.6 ml/l
Average weight	:	270 gms
Sex	:	Female

Sr. No.	Salinity (X)	Oxygen consumption ± S.D. ml/gm/h/1
1	1.6	11.006 ± 0.007
2	2.5	10.022 ± 0.006
3	3.5	11.042 ± 0.008
4	4.6 Control	09.069 ± 0.005
5	5.4	10.071 ± 0.005
6	6.5	08.073 ± 0.007
7	7.0	07.077 ± 0.006

5. Effect of desiccation on oxygen consumption

The oxygen consumption of normal crabs were measured first and this served as control. 10 prawns were taken from the 26°C aquaria, blotted thoroughly with filter paper and exposed to the atmospheric air. Every 15 minutes intervals the crabs exposed to the

atmospheric air, were taken and their oxygen consumption was measured by putting them respirometer. The results are shown in table 5. It is seen from the table that the rate of oxygen consumption was increased as the time of exposure to the atmospheric air increased.

Table.5 Effect of desiccation on the oxygen of *Macrobrachium lamerrii*

Temperature	:	26 ± 1°C
Average weight	:	0.268 gms
Sex	:	Female

Sr. No.	Salinity (X)	Oxygen consumption ± S.D. ml/gm/h/1
1	Control	0.056 ± 0.005
2	15	0.061 ± 0.007
3	30	0.070 ± 0.008
4	45	0.079 ± 0.006
5	60	0.088 ± 0.007
6	75	0.096 ± 0.005
7	90	0.108 ± 0.008
8	105	0.177 ± 0.006
9	120	0.123 ± 0.006

Table.5 Effect of desiccation on the oxygen of *Berytelphusa jaequemontii*

Temperature	:	26 ± 1°C
Average weight	:	0.268 gms
Sex	:	Female

Sr. No.	Salinity (X)	Oxygen consumption ± S.D. ml/gm/h/1
1	Control	10.056 ± 0.005
2	15	10.061 ± 0.007
3	30	10.070 ± 0.008
4	45	10.079 ± 0.006
5	60	10.088 ± 0.007

6	75	09.096 ± 0.005
7	90	08.108 ± 0.008
8	105	07.177 ± 0.006
9	120	06.123 ± 0.006

6.Effect pf starvation on oxygen consumption

The results are shown in Table 6. It is seen that the oxygen consumption was reduced to nearly 50% after starving the Crab for

14 days. The oxygen consumption went on decreasing as the days of starvations increased.

Table.6 Effect of the starvation on the oxygen consumption of Macrobrachium lamerrii

Temperature	:	26 ± 1°C
PH of H ₂ O	:	6.7
Oxygen tension	:	5.04 ml/l
Average weight	:	0.267 gms
Sex	:	Female

Sr. No.	Days of starvation	Oxygen consumption ± S.D. MI/gm/h/1
1	Control	0.056 ± 0.005
2	2	0.051 ± 0.004
3	4	0.045 ± 0.006
4	6	0.040 ± 0.007
5	8	0.037 ± 0.008
6	10	0.033 ± 0.005
7	12	0.030 ± 0.007
8	14	0.028 ± 0.006
9	16	0.016 ± 0.008
10	18	0.010 ± 0.004

Table.6 Effect of the starvation on the oxygen consumption of Berytelphusa jaequemontiii

Temperature	:	26 ± 1°C
PH of H ₂ O	:	6.7
Oxygen tension	:	5.04 ml/l
Average weight	:	267 gms
Sex	:	Female

Sr. No.	Days of starvation	Oxygen consumption ± S.D. MI/gm/h/1
1	Control	10.056 ± 0.005
2	2	10.051 ± 0.004
3	4	10.045 ± 0.006
4	6	10.040 ± 0.007
5	8	10.037 ± 0.008
6	10	10.033 ± 0.005
7	12	09.030 ± 0.007
8	14	07.028 ± 0.006
9	16	05.016 ± 0.008
10	18	04.010 ± 0.004

7.Oxygen consumption in relation to body weight

Metabolism varies according to the body weight and sex.

This experiment was conducted on Crab of both to sexes

separately and the results are shown in Table 7 A and 7 B, table 7 A, shows the results of weight specific oxygen consumption of female prawns and that of table 7 B, shows the results of weight specific oxygen consumption of male prawns. The female prawns weighing between 0.168 to 0.357 gms were grouped at 0.024 gms intervals (average) and their respiratory rates were measured. Likewise, male prawns belonging to the weight groups of 0.075 gms to 0.50 gms were chosen for the experiments. They were grouped at 0.012 gms intervals (average) and their respiratory rates were measured.

The weight specific oxygen consumption for smaller female Crabs (0.168 gms) was found to be 0.51 ± 0.004 ml/ gm/h/1,

whereas for the bigger female prawns (0.357 gms), it was 0.015 ± 0.007 ml/ gm/h/1.

In the case of male prawns, the weight specific oxygen consumption for smaller individuals (0.075 gms) was found to be 0.092 ± 0.007 ml/ gm/1 whereas for the bigger individuals (0.150 gms), the rate of oxygen consumption was found to be 0.045 ± 0.06 ml/gm/h/1.

Thus, the experiments clearly demonstrated that the rate of oxygen consumption was decreased as the body weight increased irrespective of sex of the individuals.

Table.7 A Effect of the different body weights and sex on the oxygen consumption of Macrobrachium lamerrii

Temperature	:	$26 \pm 1^\circ\text{C}$
PH of H ₂ O	:	6.8
Oxygen tension	:	5.02 ml/1
Average weight	:	0.267 gms
Sex	:	Female

Sr. No.	Average body weight of a prawn (In grams)	Oxygen consumption \pm S.D. MI/gm/h/1
1	0.168	0.051 ± 0.004
2	0.180	0.047 ± 0.006
3	0.201	0.045 ± 0.007
4	0.228	0.042 ± 0.006
5	0.248	0.036 ± 0.005
6	0.267	0.033 ± 0.008
7	0.282	0.026 ± 0.008
8	0.321	0.020 ± 0.006
9	0.357	0.015 ± 0.007

Table.7 B Effect of the different body weights and sex on the oxygen consumption – Prawn.

Temperature	:	$27 \pm 1^\circ\text{C}$
PH of H ₂ O	:	6.7
Oxygen tension	:	5.26 ml/1
Average weight	:	0.267 gms
Sex	:	Male

Sr. No.	Average body weight of a prawn (In grams)	Oxygen consumption \pm S.D. MI/gm/h/1
1	0.075	0.092 ± 0.007
2	0.084	0.088 ± 0.008
3	0.098	0.073 ± 0.005
4	0.011	0.065 ± 0.008
5	0.125	0.058 ± 0.007
6	0.137	0.050 ± 0.005
7	0.150	0.045 ± 0.006

Table.7 A Effect of the different body weights and sex on the oxygen consumption of Berytelphusa jaequemontiii

Temperature	:	$27 \pm 1^\circ\text{C}$
PH of H ₂ O	:	6.7

Oxygen tension : 5.26 ml/l
 Average weight : 267 gms
 Sex : Male

Sr. No.	Average body weight of a prawn (In grams)	Oxygen consumption ± S.D. MI/gm/h/1
1	75	10.092 ± 0.007
2	84	10.088 ± 0.008
3	98	10.073 ± 0.005
4	11	10.065 ± 0.008
5	25	06.058 ± 0.007
6	137	05.050 ± 0.005
7	150	04.045 ± 0.006

8.Oxygen consumption in relation to sex

In this experiment male and female Crabs of almost of same weight groups were taken and their oxygen consumption was

measured. The results are given in Table 8. It is quite obvious from the table that the rate of oxygen consumption was found to be more in the male prawns than the females.

Table.8 Effect of sex on the oxygen consumption of jaequemontii

Temperature : 27 ± 1 °C
 PH of H₂O : 6.7
 Oxygen tension : 5.26 ml/l
 Average weight : 0.267 gms
 Sex : Male

Sr. No.	Sex	Average body weight (In grams)	Oxygen consumption ± S.D. MI/gm/h/1
1	Male	0.166	0.062 ± 0.005
	Female	0.168	0.051 ± 0.008
2	Male	0.198	0.052 ± 0.006
	Female	0.200	0.074 ± 0.007
3	Male	0.226	0.049 ± 0.007
	Female	0.228	0.072 ± 0.005
4	Male	0.247	0.040 ± 0.006
	Female	0.248	0.036 ± 0.008

Table.8 Effect of sex on the oxygen consumption of Berytelphusa jaequemontiii

Temperature : 27 ± 1 °C
 PH of H₂O : 6.7
 Oxygen tension : 5.26 ml/l
 Average weight : 267 gms
 Sex : Male

Sr. No.	Sex	Average body weight (In grams)	Oxygen consumption ± S.D. MI/gm/h/1
1	Male	166	10.062 ± 0.005
	Female	168	10.051 ± 0.008
2	Male	198	10.052 ± 0.006
	Female	200	09.074 ± 0.007
3	Male	226	08.049 ± 0.007
	Female	228	08.072 ± 0.005
4	Male	247	07.040 ± 0.006
	Female	248	07.036 ± 0.008

9. Diurnal rhythm in oxygen consumption of

The results are given in Table 9. It is evident from the table that the rate of oxygen consumption was maximum at 8.00 a.m. and minimum at 8.00 p.m. Oxygen consumption went on increasing from

8. p.m. and reached its peak at 8.00 a.m. and then slowly declined by 8.00 p.m. so there appears to be a distinct rhythm in oxygen consumption of.

Table 9 Diurnal rhythm in oxygen consumption of Macrobrachium lamerrii

Oxygen tension	:	4.76 to 5.6 ml/l
PH of H ₂ O	:	6.9
Average weight	:	0.268 gms
Sex	:	Male

Sr. No.	Average body weight (In grams)	Oxygen consumption \pm S.D. (ml/gm/h/1)
1	8 a.m.	0.028 \pm 0.004
2	12 noon	0.022 \pm 0.006
3	4 p.m.	0.021 \pm 0.005
4	8 p.m.	0.011 \pm 0.006
5	12 mid night	0.015 \pm 0.007
6	4 a.m.	0.028 \pm 0.007

Table.9 Diurnal rhythm in oxygen consumption of Berytelphusa jaequemontiii

Oxygen tension	:	4.76 to 5.6 ml/l
PH of H ₂ O	:	6.9
Average weight	:	268 gms
Sex	:	Male

Sr. No.	Average body weight (In grams)	Oxygen consumption \pm S.D. (ml/gm/h/1)
1	8 a.m.	10.028 \pm 0.004
2	12 noon	12.022 \pm 0.006
3	4 p.m.	10.021 \pm 0.005
4	8 p.m.	10.011 \pm 0.006
5	12 mid night	09.015 \pm 0.007
6	4 a.m.	07.028 \pm 0.007

10. Effect of photoperiod on oxygen consumption

The data is given in the Table 10. It is seen from the table that the oxygen consumption is maximum in the prawns exposed to 24

hrs light. However, the prawns exposed to 18 hrs light and 6 hrs darkness and Vice-Versa showed slight change in the oxygen consumption over the control.

Table.10 Effect of photoperiod on the oxygen consumption of

Temperature	:	27 \pm 1 °C
PH of H ₂ O	:	6.9
Oxygen tension	:	4.92 ml/l
Average weight	:	0.270 gms
Sex	:	Female

Sr. No.	Average body weight (In grams)	Oxygen consumption \pm S.D. (ml/gm/h/1)
1	12 D : 12 L (Control)	0.053 \pm 0.004
2	24 D : 0 L	0.055 \pm 0.005
3	12 D : 12 L	0.057 \pm 0.008
4	6 D : 18 L	0.052 \pm 0.007
5	18 D : 6 L	0.054 \pm 0.006

Table.10 Effect of photoperiod on the oxygen consumption of Berytelphusa jaequemontiii

Temperature	:	27 ± 1 °C
PH of H ₂ O	:	6.9
Oxygen tension	:	4.92 ml/l
Average weight	:	270 gms
Sex	:	Female

Sr. No.	Average body weight (In grams)	Oxygen consumption ± S.D. MI/gm/h/1
1	12 D : 12 L (Control)	10.053 ± 0.004
2	24 D : O L	10.055 ± 0.005
3	12 D : 12 L	10.057 ± 0.008
4	6 D : 18 L	10.052 ± 0.007
5	18 D : 6 L	10.054 ± 0.006

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An analysis of Influence Factors of Intracranial Infection in Patients With Meningioma Recurrence After Reoperation

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Abstract: Objective: To analyze the influence factors of intracranial infection in patients with meningioma recurrence after reoperation. Methods: The clinical data of 213 patients with meningioma recurrence and reoperation selected from the department of neurosurgery in our hospital from February 1995 to September 2014 were retrospectively collected. One-way analysis and multivariate Logistic regression analysis were used to analyze the correlative factors of intracranial infection. Results: Malignant tumor, an age not less than 55 years old, staying in bed for a long time before operation, being complicated with organ dysfunction, obesity and diabetes mellitus, chemotherapy before the operation, a preoperative KPS score not more than 70 points, an interval time between the recurrence and first operation not less than 6 months and intensive care after operation are the risk factors of intracranial infection in patients with meningioma recurrence after reoperation, and the differences are statistically significant ($P < 0.03$); the results of multivariate Logistic regression analysis show that a preoperative KPS score not more than 70 points, an interval time between the recurrence and first operation not less than 6 months and being complicated with diabetes mellitus are the independent risk factors of intracranial infection in patients with meningioma recurrence after reoperation ($P < 0.001$, $\beta = 0.033$, $P < 0.001$). Conclusion: The risk of intracranial infection in patients with meningioma recurrence after reoperation is higher when the patients are complicated with diabetes mellitus, have preoperative KPS scores not more than 70 points and interval time between the recurrence and first operation not less than 6 months.

Key words: Risk factors, intracranial infection, meningioma, recurrence

The nature of the meningioma is benign and it is one of the most common tumors in the central nervous system (Bo-Jie, & Cheng-Chuan et al., 2013). At present, the most important treatment for meningioma is to remove the tumor and bones and meninges invaded by tumor simultaneously by operation. However, when the tumor invades to the basicranial blood vessels or venous sinuses and other important structures (Heng, & Xinghu, 2014), it can not be completely removed, which is one of the main reasons for tumor recurrence. For the patients with meningioma recurrence, the important and effective treatment currently is still excision (Leonello, & Mario, G et al., 2012). The patients with meningioma recurrence experience radiotherapy or chemotherapy, whose resistance is significantly lower than the normal people (Dai, & Gang et al., 2013). Therefore, when the craniotomy is performed again, the risk of intracranial infection is greatly increased, and the difficulty of the operation is also greatly increased. If intracranial infection occurs in patients after operation, it means that patients and their families have to bear a huge psychological and economic burden. The clinical data of 213 patients with meningioma recurrence in our hospital from February 1995 to September 2014 were retrospectively collected in the study. Their basic conditions, perioperative treatment, postoperative infection and others were analyzed, and the risk factors of postoperative infection in patients were summarized, in order to provide more theoretical basis for clinical prevention and treatment of patients with meningioma recurrence.

Materials and Methods

Clinical data

The clinical data of 213 patients with meningioma recurrence in our hospital from February 1995 to September 2014 were retrospectively collected, which recorded the patients' gender, age, tumor nature, tumor location, tumor size, whether the patients were complicated with organ dysfunction, hypoproteinemia, emaciation, anemia, obesity, diabetes mellitus and extracranial infection before operation, smoking history, drinking history, history of previous infection operation, whether the patients stayed in bed for a long time before operation, preoperative radiotherapy and chemotherapy history, preoperative hospitalization time, preoperative KPS score, interval time between the recurrence and first operation, times of previous craniotomies, whether that was emergency operations, whether that was the first operation, intraoperative bleeding, whether skull and dura mater repair materials were used, duration of operation, drainage time after operation, whether intracranial hematoma occurred after operation and whether intensive care was needed after operation.

Diagnostic criteria for intracranial infection

The diagnostic criteria of intracranial infection after reoperation for patients with meningioma recurrence are as follows: ① The cerebrospinal fluid test shows that chloride < 119 mmol/L, glucose < 2.50 mmol/L, protein content > 0.45 g/L, number of white blood cell > 10106 /L; ② The patient shows continuous fever early, accompanied by nausea, vomit, headache and other symptoms of intracranial hypertension, as well as meningeal irritation sign; ③ Bacterial growth is found in the culture of cerebrospinal fluid, and

the bacteria are found in the cerebrospinal fluid smear under microscope. If the patient meets the above two or more than two criteria, it can be diagnosed as intracranial infection. If two or more than to kinds of bacteria are found in the culture of cerebrospinal fluid, it can be diagnosed as mixed bacterial infection.

Statistical methods

The data were analyzed using SPSS17.0 software. One-way analysis was performed by chi square test, and the risk factors of postoperative intracranial infection were selected. Multivariate analysis was performed by Logistic regression model, and then the independent risk factors of intracranial infection after reoperation for patients with meningioma recurrence were established by Binary and stepwise method. A p value < 0.05 was considered statistically significant.

Results

Basic data

In the 213 cases of patients with meningioma recurrence, there were 91 women and 121 men, whose age distributed between 4665 years old with an average of (55.4±4.3) years old. Among them there were 181 cases of benign tumors and 32 cases of malignant tumors, 134 cases with tumor diameter < 5cm and 79 cases with tumor diameter ≥ 5cm, 87 cases with convex meningioma and 126 cases with skull base meningioma, 45 cases with diabetes mellitus before operation, 33 cases with drinking history, 89 cases with smoking history, 13 cases with extracranial infection, 42 cases with organ dysfunction, 37 cases with hypoproteinemia, 37 cases with emaciation, 32 cases with anemia, 43 cases with obesity, 37 cases with a history of previous infection operation, 36 cases staying in bed for a long time before operation, 7 cases with radiotherapy and 57 cases with chemotherapy before the operation, 47 cases with a preoperative hospitalization time > 10 days, 157 cases with preoperative KPS score > 70 points and 56 cases with KPS score ≤ 70 points, 177 cases with interval time between the recurrence and first operation > 6 months and 36 cases ≤ 6 months, 17 cases of emergency operations, 24 cases of non first operation, 75 cases with amount of intraoperative bleeding > 500mL, 92 cases with operation

time > 5 hours, 178 cases with times of previous craniotomies < 2 times and 35 cases ≥ 2 times, 71 cases using skull and dura mater repair materials in operation, 87 cases in the intensive care after operation, 33 cases with postoperative drainage time that more than 2 days, 41 cases with intracranial hematoma after operation. 213 cases of patients preventively used antibiotics half an hour before operation, among which 177 patients used cephalosporin antibiotics and 36 patients allergic to cephalosporin antibiotics used quinolone antibiotics.

Analysis of postoperative infection

In the 213 cases of patients with meningioma recurrence after reoperation, there were 39 cases (18.3%) of intracranial infection. There were 23 cases of patients showing positive in cerebrospinal fluid culture, including 8 cases of Streptococcus, 2 cases of Staphylococcus aureus infection, 2 cases of Escherichia coli, 5 cases of Pseudomonas aeruginosa, 6 cases of Staphylococcus epidermidis, and no patients were infected by mixed bacteria. If the patient was diagnosed with intracranial infection after operation, the antibiotics can be chosen or replaced on the basis of the original broad-spectrum antibiotic treatment, according to the patients' drug sensitivity test results, cerebrospinal fluid culture, and the clinical manifestations of meningeal irritation sign, body temperature, etc. None of the patients suffered from hydrocephalus, subdural empyema and brain abscess and other complications. 213 cases of meningioma recurrence all obtained good curative effect.

Results of Statistical Analysis

It can be found after the selection with chi square test that malignant tumor, an age not less than 55 years old, staying in bed for a long time before operation, being complicated with organ dysfunction, obesity and diabetes mellitus, chemotherapy before the operation, a preoperative KPS score not more than 70 points, an interval time between the recurrence and first operation not less than 6 months and intensive care after operation are the risk factors of intracranial infection in patients with meningioma recurrence after reoperation, and the differences are statistically significant (P < 0.03). Table 1.

Table 1 Analysis of the risk factors of intracranial infection in patients with meningioma recurrence after reoperation

Items	Infection group (n=39)	Non infection group (n=174)	X ² value	P value
Age ≥ 55 years old	38	75	37.760	< 0.001
Gender (man)	27	94	3.003	0.083
Tumor diameter ≥ 5cm	19	60	2.767	0.096
Tumor nature (malignant)	20	12	49.164	< 0.001
Tumor location (convex)	20	67	2.152	0.142
With preoperative extracranial infection	2	11	0.079	0.778
With smoking history	17	72	0.064	0.800
With drinking history	10	23	3.755	0.053
With diabetes mellitus	32	13	106.345	< 0.001

With obesity	18	25	19.978	<0.001
With anemia	7	25	0.320	0.572
With emaciation	10	27	2.275	0.131
With hypoproteinemia	10	27	2.275	0.131
With organ dysfunction	21	21	35.126	<0.001
Staying in bed for a long time before operation	15	21	15.801	<0.001
With history of previous infection operation	10	27	2.275	0.131
Times of previous craniotomies ≥ 2 times	8	27	0.579	0.447
Preoperative hospitalization time > 10 days	12	35	2.103	0.147
Operation time > 5 hours	23	69	3.399	0.065
Non first operation	7	17	2.131	0.144
Emergency operation	2	15	0.529	0.467
Interval time between the recurrence and first operation ≤ 6 months	25	11	75.733	<0.001
Preoperative KPS score ≤ 70 points	34	22	91.335	<0.001
With radiotherapy before the operation	23	34	25.278	<0.001
With chemotherapy before the operation	3	4	2.916	0.088
Using skull and dura mater repair materials in operation	17	54	2.260	0.133
Amount of intraoperative bleeding > 500 ml	18	57	2.506	0.113
With intracranial hematoma after operation	10	31	1.255	0.263
Postoperative drainage time > 2 days	10	23	3.755	0.053
Postoperative intensive care	29	58	22.193	<0.001

The results of multivariate Logistic regression analysis show that a preoperative KPS score not more than 70 points, an interval time between the recurrence and first operation not less than 6

months and being complicated with diabetes mellitus are the independent risk factors of intracranial infection in patients with meningioma recurrence after reoperation. Table 2.

Table 2 Analysis of the independent risk factors of intracranial infection in patients with meningioma recurrence after reoperation

Independent risk factors	Regression coefficient	Standard error	Wald value	Degree of freedom	P value	OR value	95%CI
Preoperative KPS score ≤ 70 points	1.892	0.539	12.322	1	<0.001	6.633	2.306~19.076
Interval time between the recurrence and first operation ≥ 6 months	3.782	1.772	4.555	1	0.033	43.904	1.362~1415.333
With diabetes mellitus	3.128	0.768	16.589	1	<0.001	22.828	5.067~102.851

In the analysis of relevant factors of intracranial infection in patients with meningioma recurrence after reoperation, the older the patients, the lower the immunity, the more the organ dysfunction and complications, so the greater the risk of intracranial infection (Carlos, & Paulo et al.,2015). For patients with longer tumor diameter, the amount of bleeding and operation wound is more, thereby increasing the risk of infection, and the incidence of postoperative intracranial infection in patients with preoperative extracranial infection is also significantly increased (Atsushi, & Hiroaki et al.,2013). However, the results of this study show that the tumor diameter and preoperative extracranial infection are not significantly correlated with the incidence of postoperative intracranial infection, perhaps due to the preventive use of antibiotics before operation. For patients with high meningioma recurrence, the preventive use of antibiotics before operation can reduce the risk of increased infection rate caused by

the tumor diameter and preoperative extracranial infection (Changbao, & Yu et al.,2013). For patients with skull base meningioma, because of the great risk of cerebrospinal fluid leakage after operation, the intracranial environment is easy to contact with the outside world, so the risk of intracranial infection after operation is greatly increased (Aaron, & Ameet et al.,2013). However, the results of this study show that skull base meningioma is not a risk factor for postoperative intracranial infection. The reason is supposed to be that aseptic operation principle is strictly followed in operation, the incision is sutured completely and cerebrospinal fluid leakage is prevented by reconstructing the skull base after operation, etc. (Bulsara & DiLuna et al.,2010), so that the risk of intracranial infection after operation is greatly reduced. For patients with meningioma recurrence and obesity, as a result of the little blood supply of fat layer (Christina, & Dennis et al.,2014), the patients'

ability to resist infection is greatly reduced. Staying in bed for a long time before operation, being complicated with organ dysfunction, hypoproteinemia, anemia and emaciation before operation and a preoperative KPS score less than 70 points all reflect poorer bodies of patients, so that the risk of intracranial infection after operation is greatly increased. The results of this study show that being complicated with organ dysfunction before operation, staying in bed for a long time before operation and a preoperative KPS score less than 70 points are all the risk factors of postoperative intracranial infection, while there is no significant correlation between emaciation, hypoproteinemia, anemia and postoperative intracranial infection. The reason is supposed to be that for patients with meningioma recurrence, due to the long course of disease, emaciation, hypoproteinemia and anemia can be improved significantly by nutritional correction and supplement (Thomas,& Zachary,2012), while being complicated with organ dysfunction before operation, staying in bed for a long time before operation and a preoperative KPS score can better reflect the patients' body condition, and thereby have a significant effect on the incidence of postoperative intracranial infection.

For patients with malignant tumors, radiotherapy and chemotherapy result in severe reduction of body immunity, tissue hypoxia and hypoperfusion, which greatly increases the incidence of postoperative intracranial infection (Edith,&Dieleman et al.,2012). Generally, the hospital ward is filled with a variety of microbial pathogens, therefore, with the prolonging of hospitalization time, the incidence of cross infection among patients will increase significantly (Dan,& Hyun et al.,2012). However, the results of this study show that the length of hospitalization time is not a risk factor of postoperative intracranial infection. Because for operation infection, the pathogen is mainly the microorganism contacted in the operation (Epstein,& Nancy,2014). Therefore, hospitalization time does not significantly affect the postoperative intracranial infection. If a patient has a history of previous infection operation, the patient's susceptibility can be reflected to a certain degree. But the results of this study show that the history of previous infection operation is not an influence factor of postoperative intracranial infection, which suggests that the external conditions such as aseptic technique and operation room environment also have a great influence on the incidence of infection. Therefore, hospitals should continuously improve the operation room environment and aseptic technique, striving to create better conditions for reducing the risk of infection. The more the previous operations, more seriously the patients' normal tissue is damaged, and the weaker the patients' ability against infection. Therefore, the influence of the times of operations before on the postoperative intracranial infection can be effectively reduced by means of reducing the exposure range of brain tissue, strengthening minimally invasive consciousness and shortening the operation time through continuous operation practice.

At present, most chemotherapy drugs are cytotoxic, and radiotherapy will cause a certain degree of damage to the bone

marrow. Both will destroy immune cells, affect the body antibody formation, and then produce immunosuppression, making the risk of postoperative intracranial infection increased greatly. The results of this study show that, radiotherapy is significantly related to the postoperative intracranial infection in patients with meningioma recurrence, while chemotherapy is not, which may be associated with the lack of chemotherapy patients and the insufficient sample size. A long operation time is often accompanied by a large amount of bleeding, a large area of wound and the formation of local hematoma. And a lot of bleeding can reduce the body's ability to resist infection caused by pathogenic microorganisms, and increase the possibility of infection. Intracranial hematoma provides nutrition for bacteria. In addition, because intracranial hematoma tends to make the time of placing drainage tube prolonged and thus increases the contact time between the intracranial environment and the outside world, the probability of infection also increases. But the results of this study show that intracranial hematoma is not a risk factor of postoperative intracranial infection. The possible reason is considered to be that the strict performance of hemostatic operation in the operation, the strict management and quick removal of the drainage tube after the operation greatly reduce the influence of intracranial hematoma on postoperative intracranial infection.

If the environment of non first operation is significantly worse than that of the first operation, the infection probability of patients will increase. Some patients required emergency operations for cerebral hernia, shock and other conditions, but inadequate preoperative preparation and others often make the patients' risk of infection increased greatly. If the patients use the skull and dura mater repair materials, the risk of intracranial infection may be increased due to bacterial adhesion and so on (Donatella,&Elena et al.,2011). However, the results of this study show that there is no significant correlation between the use of skull and dura mater repair materials and the occurrence of intracranial infection, which may be due to the great protective effect of the preventive use of antibiotics before operation and the aseptic operation. The study shows that postoperative intensive care is a risk factor of postoperative intracranial infection. It may be because that the patients needing intensive care often tend to be more serious, and there are many dangerous pathogenic microorganisms in the intensive care unit, so that the incidence of postoperative intracranial infection is gradually increasing.

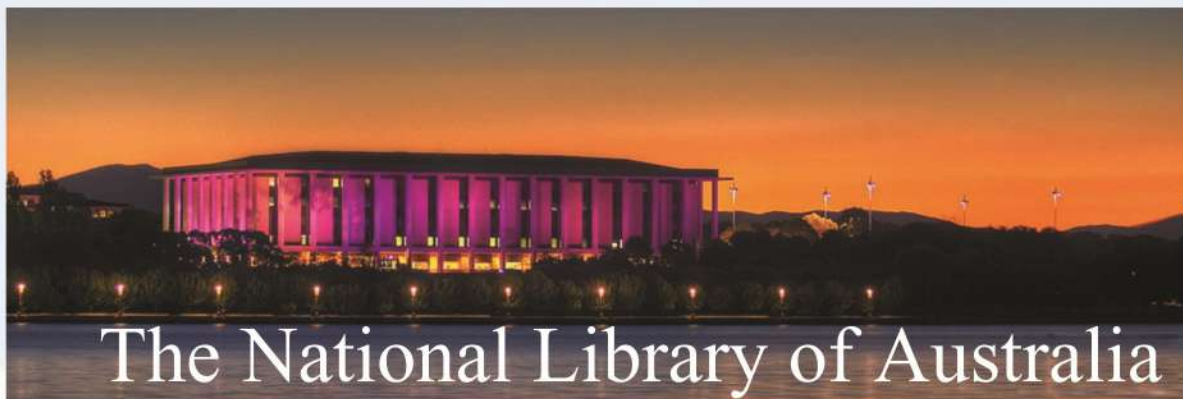
The multivariate Logistic regression analysis shows that the patients' own factors, including preoperative KPS score ≤ 70 points, interval time between the recurrence and first operation ≥ 6 months and being complicated with diabetes mellitus, are the independent risk factors of intracranial infection in patients with meningioma recurrence after reoperation. Compared to the patients' own factors, iatrogenic factors are more easily controlled and improved, so they have less influence on the occurrence of postoperative intracranial infection.

The patients' clinical data were retrospectively collected and

analyzed in the study. There is a certain degree of error in the study results because of the factors such as small sample size and the large time span of the selected cases. Therefore, multicentre and prospective randomized controlled trials should be carried out for further study, in order to provide more accurate theoretical basis for clinical treatment and prevention.

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