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Does Peer-Assisted Learning Improve Student Marks in Accounting?

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Abstract

For the past several years students in accounting at Macquarie University in Sydney have been offered the chance to participate in a peer-assisted learning program. This paper conducts a statistical analysis of the relationship between participation in peer-assisted learning and student performance, as measured by the final mark achieved in the unit offering peer-assisted learning. The paper presents a methodology for conducting the analysis that represents an advance on that found in the extant literature on this topic. Using this superior methodology, the paper finds that participation in peer-assisted learning has a statistically and numerically significant effect on student marks.

Keywords: Peer-assisted learning, First year accounting, Student marks

JEL classification: M41; A22

1. Introduction

The past decade has seen a substantial number of universities and higher education institutes adopting the Peer-Assisted Learning (PAL) method as a means of facilitating student learning. This has occurred in a variety of areas including accounting, bioscience, economics, law, medical education and vocational learning (Morrison, 2007; Tariq, 2005; O' Donnell, 2004; Howman, Bertfield & Needleman, 2002; Sullivan, 2002; Evans, Flower and Holton, 2001; Coe, McDougall, & McKeown, 1999; Playford, Miller & Kelly, 1999). The adoption of PAL programs in Australian universities has been viewed as a strategy to deal with the educational challenges associated with higher enrolments, increased numbers of international students and reduced government funding (Morrison, 2007; Miller, Oldfield & Bulmer, 2004; O' Donnell, 2004; Playford et al., 1999).

At Macquarie University in Sydney, PAL has operated in several accounting units since 2003. In 2007 we conducted a qualitative assessment of this program (Dobbie & Joyce, 2008). The data were collected via a series of focus groups with student participants and student leaders involved in the PAL program. Our results revealed that PAL at Macquarie generates significant academic and non-academic benefits for all those involved. In light of these findings the aim of the current study was to determine whether participation in PAL leads to improved marks, something that we did not examine in the qualitative assessment. As explained below, the paper also employs a superior methodology than is found in the extant literature on this topic. The paper is structured as follows. The next section describes PAL. Section 3 examines the literature on the benefits of PAL. Section 4 examines more closely the literature on the relationship between PAL and student marks/grades. Section 5 outlines the methodology employed in the paper. Section 6 discusses the results of the statistical analysis. Section 7 offers some concluding comments.

2. What is PAL?

PAL has been defined as “the acquisition of knowledge and skill through active helping and supporting among status equals or matched companions” (Topping, 2005 p.361). In a university environment this involves students, often from within the same cohort and at a similar stage of progression, learning with and from one another (Tariq, 2005; Falchikov, 2001; Playford et al., 1999). At Macquarie University for instance, the individuals who lead the PAL sessions are students who have successfully completed the subject in the recent past (Dobbie & Joyce, 2008).

The emphasis in PAL sessions is on *how* to learn and study a specific subject (Congos & Schoeps, 1993). The purpose of PAL is not to re-teach the information presented in lectures and tutorials, and for this reason, there is often no prescribed content for a PAL session. Students will bring along problems and topics that they wish to understand. It is the role of the PAL leader to encourage students to ask and answer questions regarding the material they find difficult or confusing (Dobbie & Joyce, 2008; Morrison, 2007; Tariq, 2005; Playford et al., 1999). To do so, the PAL leaders encourage student interaction, facilitate group work and develop active learning and problem-solving skills among their students (O’Donnell, 2004; Congos & Schoeps, 1993). In this way PAL programs encourage students to become more active and independent in their learning. These techniques have been defined as ‘deep learning’ approaches (Biggs, 1993; Marton & Säljö, 1976), and as such may generate benefits beyond the unit in question.

PAL programs aim to provide a friendly collaborative working environment in which students can ask questions and discuss problems. The provision of such an environment is particularly important nowadays where students often confront large lectures and large tutorials which involve highly structured content (Dobbie & Joyce, 2008; Morrison, 2007; Miller, et al., 2004; Playford et al., 1999). This type of environment is not conducive to asking questions and exploring ideas. PAL attempts to redress this.

3. What are the benefits of PAL?

There have been several studies examining the academic and non-academic benefits for both the students who attend PAL sessions, *and* the student-leaders who conduct the sessions. Some studies have found that the PAL sessions can provide an opportunity for the leaders to refine their knowledge of the subjects and topics they are tutoring. They also provide the opportunity to develop important skills such as leading a group, organising materials and sessions, time management, team work, communicating and public speaking (Dobbie & Joyce, 2008; Playford et al., 1999).

From the students’ viewpoint, several studies suggest that PAL programs can promote significant academic progress with regards to a greater and more in-depth understanding of the particular material covered during the sessions (Atkins, May & Marks-Marden, 2005; Finlay & Faulkner, 2005; Tariq, 2005; Playford et al., 1999). In addition, research suggests that students who attend PAL regularly develop valuable skills such as deep learning strategies, critical thinking, problem solving, team-work, time-management and communication skills (Dobbie & Joyce, 2008; Atkins et al., 2005; Finlay & Faulkner, 2005; Tariq, 2005; Miller et al., 2004; Playford et al., 1999).

The development of these types of skills is particularly important. Recent research suggests that technological advances and competition within the industry have led to increased expectations with regards to the capabilities and skills that accounting graduates should possess (Kavanagh and Drenan, 2008; Birrell, 2006; Lee & Blaszczyński, 1999). It has been proposed that, from an employer’s point of view, an accountant’s value is increasingly reflected in higher-order skills and abilities such as problem solving, critical thinking and oral communication (Hunton, 2002; Leveson, 2000). The PAL program is one in which such skills are automatically fostered and developed among students and leaders alike, and may thus positively influence their employability on graduation.

Research has also found that PAL programs can produce significant social and emotional benefits for PAL leaders and students. These benefits include social development, positive self-concept, improved self-esteem, opportunities to develop friendships and connections at university and increased motivation to learn and study (Dobbie & Joyce, 2008; Morrison, 2007; Ginsburg-Block, Fanuzzo & Rohrbeck, 2006; Tariq, 2005; Howman et al., 2002; Fantuzzo & Ginsburg-Block, 1998 and Saunders & Gibbon, 1998). This is an important finding when we consider that developmental and educational research has already established that positive associations exist between academic achievement, and factors such as self-esteem, self-concept, friendship and social skills (Ginsburg-Block, et al., 2006; Eccles, Roeser, Ginsburg-Block, Wigfield & Freedman-Doan, 1999; Parker, Rubin, Price & DeRosier, 1995). But does PAL actually improve student grades? The next section turns to the literature on this.

4. Does PAL improve grades?

Many of the studies examining this question have focused entirely on the students’ *perception* of how PAL has influenced their performance, often doing so with evidence that is essentially anecdotal and based on small samples of students (Ginsburg-Block, et al., 2006; Finlay & Faulkner, 2005; Tariq, 2005). Tariq (2005) for example surveyed 114 undergraduate bioscience students at the University of Central Lancashire in the United Kingdom. In this study, 85% of students reported that PAL was an extremely valuable experience. Similar positive feedback was also reported in a study by Atkins and colleagues (2005) that examined the success of a PAL-based mathematics aid program at Kingston

University in the UK (Atkins et al., 2005). The study involved interviews with 9 students who attended PAL. All students reported that PAL helped them to perform better and achieve higher grades in their assignments.

Interestingly, a qualitative study at Macquarie University (Dobbie & Joyce, 2008) revealed mixed opinions when students were questioned about whether PAL had helped improve their grades. While most students were confident that the program assisted them in developing study skills and a greater understanding of the material, some students also reported that they were uncertain as to whether or not their attendance at PAL directly impacted on their overall mark in the unit. Indeed several students commented that simply attending PAL did not necessarily guarantee a good grade. Nevertheless, a number of students were adamant that the PAL program had a significant and positive effect on their grades, aiding them in obtaining higher grades than what they believed they would be capable of achieving. All of these studies are limited however, in that they do not go beyond reporting the subjective opinions of students regarding how PAL impacted on their marks.

Two papers that try to establish whether PAL actually does improve student grades are O'Donnell (2004) and Playford et al (1999). O'Donnell (2004) undertook an assessment of the effects of PAL on student grades at Macquarie University, while Playford et al (1999) undertook a similar study of the University of Queensland's Peer-Assisted Study (PASS) program. In essence, these studies compared the distribution of grades between students who had, and who had not, participated in peer-assisted learning programs. O'Donnell (2004) also compared, for a first year accounting unit, the grade distribution for a year in which PAL had been offered, with the grade distributions from two previous years in which PAL had not been offered. Both studies found that the distribution of grades was better for those students who participated in PAL type programs. O'Donnell also found that the grade distribution was better in the year in which students had the opportunity to avail themselves of PAL. In both studies the improved grade distributions were attributed to the effect of PAL.

O'Donnell (2004, p.7) noted that this methodology is far from perfect, since it does not rigorously control for the effect of variation in innate student ability between the PAL and non-PAL student cohorts. As a result of this, these studies cannot conclusively establish whether the observed differences in the grade distributions were due to the effect of PAL, or the effect of differences in innate ability between the PAL and non-PAL student cohorts. The research reported in this paper follows a methodology developed by McLennan (2006) which is able to directly address this methodological concern. As such the results reported in this paper are more rigorous than those in the extant literature on the topic. The methodology is outlined in the next section.

5. Objectives of this study and methodology

The purpose of this paper is to examine the relationship between student performance, as measured by their Standard Numerical Grade (SNG), and their participation in PAL, while controlling for a range of other factors likely to influence SNG. This is done by estimating the following linear regression model with homoscedastic disturbances:

$$\begin{aligned} SNG_i &= \beta_0 + \beta_1 PAL_i + \beta_2 GPA_i + \beta_3 CHINA_i + \beta_4 OTHER_i + u_i \\ u_i &\sim N(0, \sigma^2) \\ i &= 1, \dots, n \end{aligned} \tag{1}$$

Where:

SNG = standard numerical grade. This is the final mark out of one hundred awarded to each student in the unit.

PAL = a dummy variable taking the value of one if a student participated in PAL. The variable takes the value of zero if the student did not participate in PAL.

GPA = grade point average. This is a calculation which reflects the overall grades of each student. It is based upon units completed only at Macquarie University. Given the way the formula for calculating a GPA at Macquarie works, the GPA is a number between zero and four. A GPA of zero implies that the student has failed every unit they have enrolled in. A GPA of four implies that a student has received a High Distinction, the highest grade, for every unit they have ever been enrolled in. The rationale for including this variable is as follows. A student's SNG may be influenced by participation in PAL, but it will also be a function of the student's ability. In this study GPA is used to measure this 'ability'. Indeed, in order to separate the influence of ability and PAL on SNG, what is required in this study is some measure of ability prior to participation in PAL. Therefore the GPA that is included in the data is the GPA of each student prior to undertaking the unit for which the student participated in PAL.

The variables CHINA and OTHER are dummy variables capturing nationality. Specifically, CHINA is a dummy variable, equal to one if a student was from Mainland China and zero otherwise.

OTHER is a dummy variable, equal to one if a student was from any nation other than Australia or Mainland China and

zero if the student was from either of those nations. Note that students of Australian nationality are the omitted reference category. The reason for including these controls for nationality is that they may act as a proxy for a range of nationality related factors that influence SNG. Included in these factors would be language proficiency and cultural differences in approaches to learning.

A potential problem arises with the estimation of (1) due to the possibility of a relationship between GPA and PAL. It may be that the more capable students are more likely to enrol in PAL in order to improve their grades. On the other hand poorer students may be disproportionately represented in the PAL cohort as a means to improve their grades. In either event there is the possibility that these two 'independent variables', PAL and GPA, are not really independent, thereby raising the estimation problems associated with collinearity. To address this, a two-step method is applied as follows.

The first step involves modelling PAL as a Probit, with GPA as a regressor. The Inverse Mills Ratio (IMR) is computed for all observations, and saved as a variable. In the next step (1) is estimated using Ordinary Least Squares (OLS), but the variable PAL is replaced with the IMR as obtained in the first step. The IMR has the characteristic of being a continuous measure of the probability of a student participating in PAL, but with the influence of GPA on PAL participation factored.

The model is estimated for the accounting units; ACCG200, Fundamentals of Management Accounting and ACCG251, Accounting and Information Systems. These are both second year units. While PAL is also offered in a first year accounting unit, there are insurmountable problems with estimating the type of model in (1) for this unit. Most students undertaking the first year accounting unit have just commenced their university studies. As a result they do not have a GPA that can then be used to proxy their ability. An alternative approach would be to use each students University Admissions Index (UAI) as a measure of ability. The problem with this approach is that overseas students, who make up around 30 per cent of the intake, would then have to be excluded from the study as they do not have an Australian UAI. The result would be an unrepresentative sample based essentially on domestic students only. Another option would be to give all students without a UAI, the sample mean UAI. As just noted however this would involve replacing a crucial variable for 30 per cent of the sample, something we found to be unacceptable. We have therefore chosen to limit the study to the two units for which these problems do not arise. In the next section the results are presented and discussed.

6. Results

The results of the statistical analysis are reported in Tables 1 and 2. We discuss the results for each unit in turn.

6.1 ACCG200

As can be seen from Table 1, the main determinant of variation in SNG is variation in student ability, as measured by GPA. This is a robust result that is almost identical using the OLS or two-stage estimation procedures. The results suggest that for each one unit increase in GPA, SNG increases by approximately 10.3 marks. These results are significant at the one per cent significance level.

Participation in PAL has a statistically significant effect on SNG, although the magnitude of the effect is much smaller than for GPA. In the OLS results, participation in PAL results in an increase in SNG of 6.5 marks, on average, all other factors held constant. This result is statistically significant at the one per cent significance level. In the two-stage results the size of the effect from PAL participation is halved to 3.02 marks. This result is statistically significant at the one per cent significance level. The smaller magnitude of the coefficient in the two-stage estimation is consistent with the finding from the Probit regression of GPA on PAL. This regression, reported in Table 2, suggests that more able students are more likely to enrol in PAL, although it should be noted that this results fails to achieve significance at conventional levels. If there is indeed some correlation between GPA and PAL, then we would expect the IMR to be a more independent measure of the effect of PAL on SNG, since it has the influence of ability (GPA) factored out. In other words the estimated effect, as measured from the OLS regression, overstates the influence of PAL, since part of the influence being captured is due to ability (correlated with PAL).

Students from mainland China also seem to perform better than all other students. This result is significant at the one per cent significance level and results in approximately an additional 5 marks on average, all other factors held constant. The adjusted R-squared for this regression is 0.34, which is quite reasonable given that the data being used is cross-sectional.

6.2 ACCG251

As was the case for ACCG200, the major determinant of variation in SNG in ACCG251 is variation in ability, as measured by GPA. Each one unit increase in GPA is associated with a 6.3 mark increase in SNG, on average, with all other factors held constant. The estimated coefficients on GPA are significant at the one per cent level in both the OLS and two-stage estimations. Participation in PAL has a small positive effect on SNG. The result is significant at the ten

per cent level. The magnitude of the effect on SNG is 3.32 and 2.03 in the OLS and two-stage estimations respectively. The fact that the two estimation processes produce numerically close estimates is consistent with the evidence from the Probit reported in Table 2. The estimated coefficient on GPA is numerically small at 0.02, and the t ratio is also very low. The conclusion is that for this group of students there is no relationship between ability and participation in PAL. Hence the two estimation procedures produce very similar results.

The estimated coefficients on the nationality dummy variables suggests that compared with Australian students, both students from mainland China and those from other countries perform worse, all other factors held constant. The magnitudes of these effects are 13.34 and 11.83 respectively. The adjusted R-square is 0.23, which is again quite good, given the cross-sectional nature of the data employed.

6.3 Discussion of results

In both units the single most important explanation of variation in performance is variation in ability. Nevertheless, it is also the case that in both units participation in PAL has a positive effect on performance as measured by SNG. Students who participate in PAL perform better than those who do not, even after controlling for a range of other factors which could influence performance, most notably, ability. The magnitude of the effect is reasonable in ACCG200, with students improving their results by 6.5 marks on average. The magnitude of the improvement achieved by PAL in ACCG251 is more modest at around 2 to 3 marks. Students from mainland China seem to perform better than other students in ACCG200. In ACCG251 it is domestic students who perform better than non-domestic students. This result was put to the lecturers in these units. As one explained, ACCG200 is a more 'technical' unit. Some 70 per cent of the assessment in ACCG200 involved solving practical numerical questions that may well have suited the learning style of students from Mainland China, as well as placing less emphasis on written communication skills.

7. Conclusions

This paper has a very specific focus. It sets out to quantify the effect of participation in PAL on SNG. We find evidence of numerically and statistically significant effects, especially in ACCG200. The results of the current study support past research findings that attending peer-learning programs can improve overall grades (O'Donnell, 2004; Playford et al., 1999). These quantitative results complement the findings reported in an earlier paper focusing on the qualitative benefits of PAL (Dobbie & Joyce, 2008). Together, these papers present a significant endorsement of the PAL approach. A fruitful direction for future research would be to attempt to establish whether the higher order skills that are developed in the PAL program are associated with greater success in the workforce post-graduation.

References

- Atkins, N., May, S., & Marks-Marden, D. (2005). Widening participation in subjects requiring data handling skills: The MathsAid Project. *Journal of Further and Higher Education*, 29 (4), 353-365.
- Biggs, J. (1993). What do inventories of students' learning process really measure? A theoretical review and clarification. *British Journal of Educational Psychology*, 83, 3-19.
- Birrell, B. (2006). *The Changing Face of the Accounting Profession in Australia*, report prepared for CPA Australia. [Online] Available: <http://www.cpaaustralia.com.au> (15 December 2007)
- Coe, E.M., McDougall, A.O., & McKeown, N.B. (1999). Is peer-assisted learning of benefit to undergraduate chemists? *University Chemistry Education*, 3, 72-75.
- Congos, D., & Schoeps, N. (1993). Does supplemental instruction really work and what is it anyway? *Studies in Higher Education*, 18, 1-13.
- Dobbie, M., & Joyce, S. (2008). Peer-Assisted Learning in Accounting: A Qualitative Assessment. *Asian Social Science*, 4 (3), 18-25.
- Eccles, J. S., Roeser, R., Wigfield, A., & Freedman-Doan, C. (1999). Academic and motivational pathways through middle childhood, in: L. Balter and C. Tamis-LeMonda, eds. *Child psychology: A handbook of contemporary issues*, (Philadelphia: Psychology Press) 287-317.
- Evans, W., Flower, J., & Holton, D. (2001). Peer tutoring in first-year undergraduate mathematics. *International Journal of Mathematical Education in Science and Technology*, 32, 161-173.
- Falchikov, N. (2001). *Learning Together. Peer Tutoring in Higher Education*, (Routledge Falmer, London, U.K).
- Fantuzzo, J., & Ginsburg-Block, M. (1998). Reciprocal peer tutoring: Developing and testing effective peer collaborations for elementary school students, in: K.J. Topping and S. Ehly, eds, *Peer assisted learning* (Hillsdale NJ: Erlbaum) 121-144.
- Finlay, S.J., & Faulkner, G. (2005). Tete a tete: Reading groups and peer learning. *Active Learning in Higher Education*, 6, 32-45.

- Ginsburg-Block, M.D., Fantuzzo, J.W., & Rohrbeck, C.A. (2006). A meta-analytic review of social, self-concept, and behavioral outcomes of peer-assisted learning. *Journal of Educational Psychology*, 98, 732-749.
- Howman, M., Bertfield, D., & Needleman, S. (2002). *The PAL Project: Peer-assisted learning in medicine*. [Online] Available: <http://www.ucl.ac.uk/acme/The%20PAL%20Project.doc> (30 January 2008)
- Hunton, J.E. (2002). Blending information and communication technology with accounting research. *Accounting Horizons*, 16, 56-67.
- Kavanagh, M.H., & Drennan, L. (2008). What skills and attributes does an accounting graduate need? Evidence from students perceptions and employer expectations. *Accounting and Finance*, 48, 279-300.
- Lee, D. W., & Blaszczyński, C. (1999). Perspectives of 'Fortune 500' executives on the competency requirements for accounting graduates. *Journal of Education for Business*, 75, 104-108.
- Leveson, L. (2000). Disparities in perceptions of generic skills: academics and employers. *Industry and Higher Education*, 14, 157-164.
- Marton, F., & Säljö, R. (1976). On qualitative differences in learning. *British Journal of Educational Psychology*, 46, 4-11 and 115-127.
- McLennan, M. (2006). Report to Trevor Whitehead: Relationship between Peer Assisted Learning and Standardised Numerical Grades, Mimeo, Macquarie University.
- Miller, V., Oldfield, E., & Bulmer, M. (2004). Peer Assisted Study Sessions (PASS) in first year chemistry and statistics course: insights and evaluations. *Uniserve Science Scholarly Inquiry Symposium Proceedings* 30-35. [Online]. Available: www.science.uniserve.edu/pubs/procs/wshop9/schws003.pdf (18 December 2007)
- Morrison, K. (2007). Peer Assisted Study Sessions: supporting quality learning & student engagement in Economics & Business. *Synergy*, 24, 3-7.
- O'Donnell, R. (2004). Introducing peer-assisted learning in first year accounting in Australia, *Macquarie Economics Research Papers* 12, [Online] Available: <http://www.econ.mq.edu.au/research/2004/PALDec04.pdf> (January 15 2008)
- Parker, J.G., Rubin, K.H., Price, J.M., & DeRosier, M.E. (1995). Peer relationships, child development and adjustment, in: D. Cicchetti, and D.J. Cohen, eds. *Developmental psychopathology: Risk, disorder and adaptation Vol 2* (Wiley, New York), 96-161.
- Playford, J., Miller, V., & Kelly, B. (1999). Peer assisted study programs (PASS), paper presented at the TEDI Conferences, Brisbane March 8 2002, [Online] Available: http://www.tedi.uq.edu.au/conferences/teach_conference99/papers/Playford.html (20 January 2008)
- Saunders, D., & Gibbon, M. (1998). Peer tutoring and peer-assisted student support: Five models within a new university. *Mentoring & Tutoring: Partnership in Learning*, 5, 3-13.
- Sullivan, M. (2002). Peer assisted learning in vocational education. *Australian Vocation Education Review*, 9, 17-27.
- Tariq, V.N. (2005). Introduction and evaluation of peer-assisted learning in first year undergraduate bioscience. *Bioscience Education e-Journal*, 6, [Online] Available: <http://www.bioscience.heacademy.ac.uk/journal/vol6/beej-6-3.htm> (30 January 2008).
- Topping, K.J. (2005). Trends in peer learning. *Educational Psychology*, 25, 631- 645.

Table 1. Regressions of SNG on student characteristics

	ACCG200	ACCG200	ACCG251	ACCG215
	(1)	(2)	(3)	(4)
	OLS	Two Stage	OLS	Two stage
CONSTANT	39.88** (27.60)	40.05** (27.74)	53.34** (20.02)	54.39** (20.57)
GPA	10.27** (18.17)	10.34** (18.32)	6.25** (5.52)	6.28** (5.55)
PAL (OLS)	6.561** (2.75)		3.32# (1.66)	-
PAL (IMR) (2 step)	-	3.02** (2.75)		2.03# (1.67)
CHINA	5.62** (4.58)	5.63** (4.58)	-13.34** (-5.51)	-13.34** (-5.51)
OTHER Nation	1.41 (0.92)	1.41 (0.92)	-11.83** (-4.10)	-11.83** (-4.10)
Number of Observations	686	686	210	210
Adjusted R ²	0.34		0.23	

Notes: ** implies significant at the 1 per cent level. # implies significance at the 10 per cent significance level. The *t-ratios* are in brackets. *F-tests* for joint significance (not reported) rejected null hypothesis in all models.

Table 2. Probit Regressions of PAL as a function of GPA

	ACCG200	ACCG251
Constant	-1.86*** (-9.20)	-0.48** (-2.66)
GPA	0.10 (1.21)	0.02 (0.23)

Notes: ** denotes significance at the 1 per cent significance level. The *t-ratios* are in brackets.



Private Property Rights, Legal Enforcement and Economic Prosperity: The Fall of Early Civilized China and the Rise of United Kingdom in 18th -19th Century

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Abstract

Having a glance at the historical sites such as Bing Ma Yung, Great Wall, Forbidden City, watching movies of history about China, flipping pages of stories about ancient China, China was once the most powerful nations. Nevertheless, industrial revolutions in 18th -19th century countries miles away improve the skills of industries, making the Great Britain as the most affluence countries at that time. Well developed private property rights and legal system has provided a superb environment for inventors.

Keywords: Property rights, Legal enforcement, Economic prosperity, China, United Kingdom

1. Introduction

History of China can be dated back to the period of Three Sovereigns and Five Emperors in about 5,000 years ago which is supported by archaeological records. China is one of the world's oldest early civilizations. Turtle shells with Chinese writing in Shang Dynasty dated to around 1500 BC (Wikipedia, 2008a). Nevertheless, whilst industrial revolution led to the success among European countries, China's economic growth started to fall behind. While Malthus once regards the security of private property as "among the most important causes which influence the wealth of nations." (Malthus, 1820), the existence of patent, a kind of private property right has become one of the key factors which lead to the success in industrial revolution. Private property rights exist as if the owners has (1) the right to exclude the other people so that the private property owner alone can decide on its use (2) the right to extract an exclusive income, and (3) the right to transfer or exchange the property as he thinks fit (Cheung, 1983). The economic success brought about by innovative technological breakthrough during industrial revolution (1700 to 1850) was deal largely to the presence of patent system. Frankly, nobody has incentive to invent something if the fruit of innovation does not belong to the one who spent time on invention. Protection of private property right on innovations requires good laws. Legal regulations and enforcement has long been regarded as an important factors in business development, it not only affects the development of real estate developers in modern times (Li, 2008b, 2009), it also determines the economic development in times of industrial revolution.

2. Background: UK and China in 18-19th century

18th – 19th century was the turning point in UK's economy; it marks the beginning of modern time. Great innovations improve human life and lead to economic prosperity. Generally speaking, there were 2 phrases of modern inventions in UK. The first was dominated by coal, iron and steam which fell between 1700 and 1850. The second phrase was associated with steel, internal combustion engine and electricity started from 1850. Both two period of time demonstrated that advances in technology cannot by themselves lead to industrial growth. Striking progress, however, can be achieved in short period of time if entrepreneurs have the willingness and ability to recognize and apply useful new ideas and inventions (Henderson, 1969).

(Table 1 here)

One of the major revolutions in history happened in no more than a hundred years. Hand tools were substituted by heavy-duty machines. Output of coal, Pig-iron and raw-cotton increased greatly over the short period of time (Table 1).

It is undeniable that technological progress had been a powerful stimulus in the early growth of the British manufacturers (Henderson, 1969) and economic progress in 18th to 19th century.

19th century in China under Qing control was weak and economic prosperity diminished (Wikipedia, 2008b). When the Chinese reformer Huang Tsun Hsien visited London in the 1890s, it was unbelievable that, within only one hundred years' time, the economy of homeland China and that of Britain had basically born a similitude to one another (Henderson, 1969). Indeed, China suffered from economic problem and great population growth. All these increased strain on the food supply. Under traditional Chinese culture, the emperor had the rights to rule "all under heaven". All the inventions and innovative ideas belong to the emperor (Wikipedia, 2008b).

3. Literature Review

3.1 Determinants of economic development: private property rights

Previous research suggests that the key factors of economic development are physical and human capital accumulation and improvements in technology. Famous economists John Mill stated that "productions will be limited by the amount of their previous accumulation, and ... will be proportional to their energy, their skill, the perfection of their machinery, and their judicious use of the advantages of combined labour" (Mill, 2001). Neoclassical growth school of thought stresses on physical capital accumulation (Heitger, 2004). Although the neoclassical growth theory (which regards technological know-how as exogenous and a constant in production function) has dominated the field for quite a long time, academic researchers in economic geographers and regional science have emphasized the importance of technology in structuring and restructuring regional, national and international economy. Economist Joseph A. Schumpeter emphasizes the role of innovations and inventions in economic development as in 1930s. Endogenous growth theory has also stressed the strategic role of technological progress in economic dynamics over time and international space. In view of these, governments at various levels across different parts of the world spend large amount of resources in inventions and innovations to speed up regional economic growth and to increase national and international competitiveness (Sun, 2000). After all, the key question is: What is the major factor which speeds up capital accumulation, innovation and technological improvements which cause economic growth ultimately?

As Hayek (1949) comments "self interests represented the universal mover. The worth of a state in the long run is the worth of the individuals who help compose it (Mill, 2001). Current researchers think that the major ingredient in economic growth and innovation is incentives, which strappingly depend on private property rights system. Such rights can enable the sources of production attain their utmost degree of fecundity. If the government itself or the sovereign power "practices robbery," property will become a pure "mockery." Without the protection of private property rights, "it is impossible to conceive any considerable development of the productive power of man, of land, and of capital; or even to conceive the existence of capital at all" (Say, 2001). Indeed, nobody will have an incentive to invent something if he does not have the right to generate income from his innovation. It is undeniable that efficient use of resources requires secure property rights. Traditional growth theory, however, never mentions the importance of private property rights which is quite obvious not true in reality (Heitger, 2004).

Though private property was viewed with growing distrust in the middle of 18th century, the fall of the wall between Western and Eastern Berlin, Russia Empire etc Europe in real life history has proven the importance of private property rights. During the Mao's period in China, there was an old saying "a man who does his own job earns \$36, a man who does not does his job also earn \$36" There was no incentive to do job during that period of time, economic development nearly stopped as the right to generate income was absence.

3.2 Patent as an example of private property right and economic development

Mises, Demsetz, and Pejovich propose that folks respond to the resource scarcity problem because they are aware of the presence of property rights and want to do something about it (Beaulier & Prychitko, 2006). "The original idea of patent was to "facilitate and encourage disclosure of innovations into the public domain for the common good". The existence of patent is a typical example of how private property rights enhance human prosperity. Patent owners has (1) the right to exclude the others (2) the right to extract exclusive income from patent and (3) the right to exchange (Cheung, 1983). Patent provides the fundamental incentive for research and development. Without patents, corporations would be much more conservative about the R&D investments they made, as third parties would be free to exploit any developments (Wikipedia 2007).

4. Objective of the study

"Commerce and manufactures can seldom flourish long in any state which does not enjoy a regular administration of justice, in which the people do not feel themselves secure in the possession of their property, in which the faith of contracts is not supported by law" (Smith, 2000) While Malthus perceived private property as the most important causes which determine the wealth of nation (Beaulier & Prychitko, 2006), this paper aims at reviewing the impact of patent (as one of the examples of private property rights) on economic developments during industrial revolution.

4.1 Research method

'Research method' refers to the tools which are used to gather and analyze data (Cooper & Schinder, 1998). As Merton commented "it is through originality, in greater or smaller increments, that knowledge advances (Lamont, 2009), extensive literature review has been carried out. To study the impact of patent on economic development, historical data (15th-17th centuries) on output of coal, pig-iron and raw-cotton in UK has then been collected.

5. Results and discussions

No great mechanical inventions had been introduced before 1760 during the old industrial system in England (Toynbee, 1920). Nevertheless, technological innovation was at the heart of the industrial revolution. Granting of patents to inventors by the UK government was considered as an essential factor in thought-provoking innovative technological breakthrough and ultimately economic prosperity.

The end products of patents on the industrialization development are clearly demonstrated in the history of the steam engine, the major technological breakthrough which marks the beginning of industrial revolution. In return for an invention, James Watt received the patent for his steam engines which increased the pace of technological development at that time. The improved steam engine invented by James Watt was at first primarily used for pumping out mines. Starting from the 1780s, however, it was applied for generating power for machines. This enabled efficient semi-automated factories on a previously unimaginable scale in places where waterpower was not available (Wikipedia 2007). Because of this, production of coal has increased greatly from 1660 to 1800 (Figure 1).

(Figure 1 here)

Another example was Henry Cort who invented ironmaster. During the Industrial Revolution, Cort refined iron from pig iron to wrought iron and got his patent in the grooved rolling process in 1783 and balling or puddling furnace in 1784. Cort set up his iron works in Fontley, the place where he developed his ideas. (Wikipedia, 2007) Such innovative invention greatly increases iron production (Figure 2).

(Figure 2 here)

Without barriers, innovators may even have the incentive to over-accumulate knowledge Sustained levels of income and growth rely on innovation and adoption of new technologies, which in turn require the accumulation of human capital (Marimon & Quadriini, 2006).

In the 18th and 19th century, there was no incentive system like patent for inventor in China. All the innovations belong to the "son of God" – the emperor. China's first law in the area of patent right was issued by the late Qing government in 1911 and revised in 1923. Under this law, newly unique inventions were protected for a period of 5 years but were issued to Chinese nationals only or by treaty to foreigners. Chinese patent law system grants exclusive rights to patentable invention, utility model or design to the first party to file a patent application. This is sharp contrast to the system in UK, which issues patents on a first-to-invent basis. Patent protection is therefore denied for any invention that has been disclosed in a publication anywhere in the world or has been used or made known to the public before the filing date of the application (Hill & Judith, 1993). May be, all these explain why scientific innovation in China at that period of time can not be comparable to those in UK.

As self-interests determine people's normal action: to contribute his or her effort as much as possible, people contract to set up institutions to enforce stable, define entitlements to scarce resources with a view to smooth the progress of investment, production, and exchange. Thus, contracts which constitute private property rights and institutions pave the way those contracts dealing with existing property rights; both can be conceived as market transactions made in pursuit of gains (Getzler, 1996). After all, "if private property were adopted, we must presume that it would be accompanied by none of the initial inequalities and injustices"(Mill, 2001). Academic researchers such as Weber had stated the significance of the role of lawyers and law in creating property rights stability and contract enforcement predictability via formal bureaucratic rule, whereby chosen norms were applied on purpose, rather than traditional norms by means of "age-old rules and powers", so as to resolve conflict and generate order (Getzler, 1996). The object of enforcement is to achieve a level of compliance with a set of behavioral rules that society believes it can afford (Stigler, 1970). While private property rights provide the certainty and incentive necessary to free people from having to protect their possessions and to make them willing to invest resources in fixed locations for production which brings people to work harder for themselves and their families than for needy humanity in general, officials should enforce private property in whatever tangible or intangible resources they wish people to produce in greater quantities accordingly. Development of national wealth in the last several centuries is almost entirely associated with the development of strong private property systems. Private property rights sometimes imply the lawful boundaries that protect the object. An adequate legal system of property law includes formal ways of determining the extent of property boundaries and providing enforcement against and compensation for harmful crossing. Tort law, criminal law and government regulations provide the function. Contract law and commercial Act specify the rules by which owners exchange objects in a private property-based legal system (Reed, 2006). As Hayek mentioned "the aim of the rules of law is merely to prevent, as

much as possible, by drawing boundaries, the actions of different individuals from interfering with each other,” (Hayek, 1973). Any system of private property rights require state enforcement: to protect such rights from forced occupation, invasion and embezzlement (Epstein, 2005). Adam Smith also stated that “Commerce and manufactures can seldom flourish long in any state which does not enjoy a regular administration of justice, in which the people do not feel themselves secure in the possession of their property, in which the faith of contracts is not supported by law” and “The first and chief design of every system of government is to give each one the secure and peaceable possession of his own property”(Smith, 2000).

People often misunderstand that there legal enforcement does not exist in Chinese history. As a matter of fact, the history of law in China is quite long. Its legal system has been established in early Qi'in dynasty (221BC - 206BC). The well-known story of Sheung Yang who was killed by the law established by himself is one of the most famous evidence on the existence of law in China. Nevertheless, there is no set of rules which ran through two dynasties in history--different set of laws and regulations were written and designed particularly for different emperors. There was Han Law in Han Dynasty (206 - 220), Tang Law in Tang Dynasty (618 - 907) and so on in Chinese history. As Chan commented that “Chinese had their rule of law many years ago.” (Chan, 1997). Fa (legal), however, is to be employed as a last resort to maintain social order to maintain social order when li (propriety) has failed to do so. This can be explained by its own culture. Confucius commented “If the people be led by virtue and uniformity sought to be given them by punishments, they will try to avoid punishments but will have no sense of shame. If people are led by virtue and uniformity sought to be given to them by the rules of property they will be ashamed and will become good.” (Bhatia, 1974). In fact, when we read the history of law in China, legal rules and regulations were perceived as an important apparatus of emperors to protect their own rights and powers. Civilians' rights are deprived. People are often of the view that the one with high social status should not be punished. (B. C. Chan, 2007) It was a common phenomenon that the one with lower status in the organization to be punished instead of the head of the companies. Bribery often helped the affluent or the people in high social status to escape from penalty. From this perspective, even patent exists in ancient China, such inequalities and inadequacies in law cannot enforcement the private property rights systems well. The rich or officials in higher social status still can rob the fruit of the inventors easily.

In United Kingdom, however, Carta 1215 had clearly stated that the rule of law control the power of the emperor which served to prevent the emperor abuse his power. Besides, as people in the Western World do consider fairness as an important value, for example, all people were equal in a court of law (Li, 2008a). All these ensure smooth of private property rights enforcement.

6. Conclusion

The secure and transferable property rights are the key to economic efficiency and wealth. Legal definitions of rights and responsibilities based on firmly understood private property rights are the major instrument for economic progress while at the same time ensure the sustainability of production. (Heitger, 2004) It is undeniable that private property is the goose which lays the egg of wealth of nations. The existence of patent, as a kind of private property rights, protects the hard work of the inventor. With the presence of this, inventors have the incentives to do invention since he can generate income from it. Looking back, patent has stimulated innovation activities which lead to the industrial revolution in UK. At that period of time, inventors in China cannot enjoy the fruit of their inventions. All the innovative ideas belong to the emperor. Potential inventors spend time on studying to secure a job as a government official rather than spending time on scientific inventors. It was until the conquered of the major cities in China, officials start to think of some possible ways to stimulate scientific innovations when patent was introduced in 1911. Enforcement of private property rights have become another important issue. Although there are patent system in China nowadays, many newly inventions were copied by the others in a very short period of time. Clearly, nobody will follow the rule if enforcement is absence, inadequate or injustice. Issuing patent without enforcement is only a kind of waste.

References

- Anglia Multimedia. (1995). Industrial revolution [VCD]. Benfleet: Essex.
- Beaulier, S. A., & Prychitko, D. L. (2006). Disagreement Over the Emergence of Private Property Rights: Alternative Meanings, Alternative Explanations. *Review of Austrian Economics*, 19, 47-68.
- Bhatia, H. S. (1974). *Legal and political system in China*. New Delhi: Deep & Deep Publications.
- Chan, A. (1997). *The development of Chinese legal system and the interaction between Chinese law and Hong Kong law*. Hong Kong: Local Crown Counsel Association.
- Chan, B. C. (2007). *Han Fei Zi*. Beijing: Chung Hwa Book Co.
- Cheung, S. N. S. (1983). The contractual nature of firm. *Journal of Law and Economics*, 26.
- Cooper, D. R., & Schinder, P. S. (1998). *Business research methods*. Boston: Irwin McGraw Hill.
- Epstein, R. (2005). *The creators own ideas*. U.S.A: Massachusetts Institute of Technology.

- Getzler, J. (1996). Theories of Property and Economic Development. *Journal of Interdisciplinary History*, 26(4), 639-669.
- Hayek, F. A. (1949). *Individualism and economic order*. Great Britain: Weatherby Woolnough.
- Hayek, F. A. (1973). *Law, Legislation and Liberty*. Chicago: The University of Chicago Press.
- Heitger, B. (2004). Property Rights and the Wealth of Nations: A Cross-Country Study. *The Cato Journal*, 23, 381-402.
- Henderson, W. O. (1969). *The Industrialization of Europe*. London: Thames & Hudson.
- Hill, D., & Judith, E. (1993). Chinese patent law: Recent changes align China more closely. *The George Washington Journal of International Law and Economics*, 27(2/3), 359-393.
- Lamont, M. (2009). *How professors think : inside the curious world of academic judgment*. Cambridge Harvard University Press.
- Li, R. Y. M. (2008a). *East and West: an exploratory study of cultural impact on sustainable development in Hong Kong*. Paper presented at the ICONUS Conference, Hong Kong.
- Li, R. Y. M. (2008b). Nature of the Firm: a Study on Developers in China and Hong Kong. *Journal of Applied Economic Sciences*, 3(4(6)), 479-486.
- Li, R. Y. M. (2009). Legal Regulations, People's Perceptions on Law and Scope of Services Provided by Firms: A Study on Dwelling Developers in Beijing and Hong Kong. *The Business Review, Cambridge*, 12(1), 221-226.
- Malthus, T. R. (1820). *Principles of Political Economy*. Cambridge: Cambridge University Press.
- Marimon, R., & Quadrini, V. (2006). Competition, Innovation and Growth with Limited Commitment. [Online] Available: <http://www.urrutiaealalde.org/WinterWorkshop/2007/marimon.pdf> (July 1, 2009)
- Mill, J. S. (2001). *The Principles of Political Economy*. Ontario: Batoche Books.
- Reed, O. L. (2006). Exclusive private property is indispensable to Brazil's economic development. *International Journal of Economic Development*, 8(1/2), 5-10.
- Say, J. B. (2001). *A treatise on political economy*. Kitchener: Batoche.
- Smith, A. (2000). *The wealth of nations*. New York: Modern Library.
- Stigler, G. J. (1970). The optimum enforcement of laws. *Journal of Political Economy*, 78(3), 526-536.
- Sun, Y. (2000). Spatial distribution of patents in China. *Regional Studies*, 34(5), 441-455.
- Toynbee, A. J. (1920). *Lectures on the industrial revolution of the 18th century in England : popular addresses, notes, and other fragments*. London: Longman.
- Wikipedia. (2007). Industrial Revolution [Online] Available: http://en.wikipedia.org/wiki/Industrial_revolution (July1, 2009)
- Wikipedia. (2008a). History of China. [Online] Available: http://en.wikipedia.org/wiki/History_of_China (July1, 2009)
- Wikipedia. (2008b). Qing Dynasty. [Online] Available: http://en.wikipedia.org/wiki/Qing_Dynasty (July1, 2009)

Table 1. Output of coal, pig-iron and raw-cotton in UK (Henderson, 1969).

Product	Output(Year)	Output(Year)
Coal	>3 million tons (1690)	10 million tons (1790)
Pig-iron	17,000 tons (1740)	250,000 tons (1806)
Raw-cotton	1 million lb (1743)	60 million lb (1802)

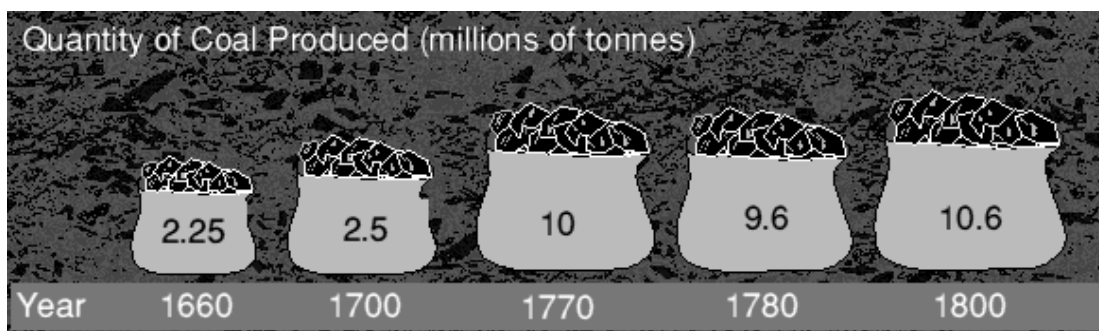
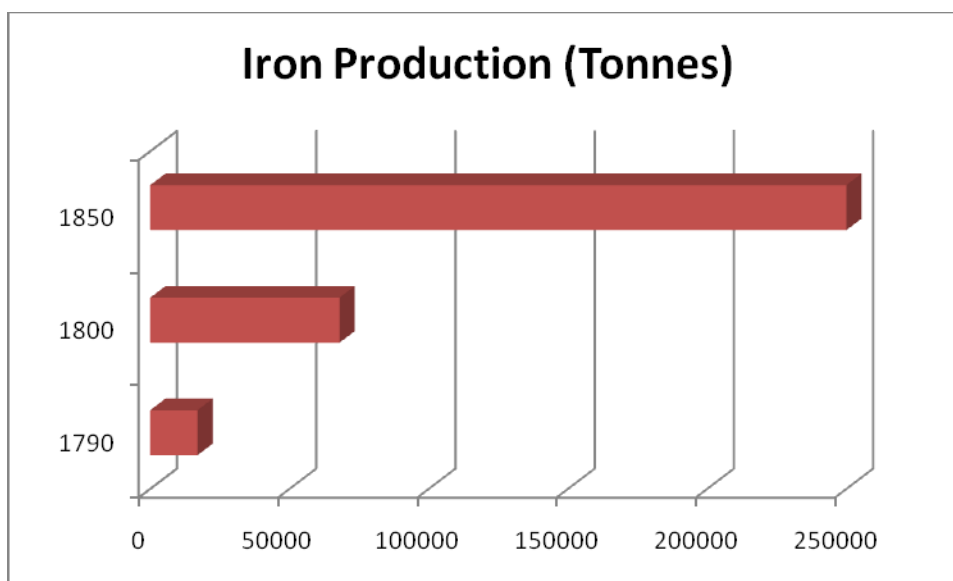


Figure 1. Quantity of Coal Produced from 1660 to 1800 Source: Anglia Multimedia (1995)

Figure 2. Iron production in 18th and 19th century from 1740 to 1790 (Anglia Multimedia, 1995)



China's Opportunities of Investment during Economic Downturn: Study on Foreign and Outward Investment Activities

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Abstract

Financial crisis from US heavy shocked great China's economic, so that financial asset rapid decrease, job market goes down and international trade shrinks. Due to at the beginning of the crisis broke out, a lot of review thought that China economic will not be go out of balance and decreased fast, in adverse, China should to catch up the chance for adjust structure of industries and optimize economic development. In this paper we are going to study how to get the suitable opportunities for make crisis be a favorable factor to promote China economic reform get closely to expectation by the research of foreign and outward investment activities. Moreover through to this study to analysis China foreign and outward invest policy options.

Keywords: Economic crisis, Investment, Opportunities, Strategy options

1. Introduction

The current global financial crisis which began with the downturn of the U.S subprime housing market in 2007, current turmoil is confronting emerging market economies with two shocks—a “sudden stop” of capital inflows resulting from the global deleveraging process, and a collapse in export demand associated with the global recession—that in turn are leading to sharply tighter domestic credit conditions and slumping aggregate demand. This note discusses, in broad terms, the main policy options for emerging market economies confronted by these shocks, recognizing that specific prescriptions must be tailored to individual country circumstances.

Over the past several years, China has enjoyed one of the world's fastest growing economies and has been a major contributor to world economic growth. However, the current global financial crisis threatens to slow China's economy. Although its exposure to troubled U.S. sub-prime mortgage securities is believed to be relatively limited, China's export industries and sectors dependent on foreign investment could be hard hit if the economies of its major trading partners, including the United States, experience a sharp slowdown. This possibility concerns the Chinese government, which views rapid economic growth as critical to maintaining social stability. China is a major economic power and holds huge amounts of foreign exchange reserves, and thus it could play a major role in responding to the current crisis. For example, in an effort to help stabilize the U.S. economy, China might boost its holdings of U.S. Treasury securities, which would help fund the Federal Government's purchases of troubled U.S. assets. However, this could raise a number of issues and concerns for U.S. policymakers. This report will be updated as events warrant.

2. Current crisis impact on China economic

China's economy is heavily dependent on global trade and investment flows. In 2007, China overtook the United States to become the world's second largest merchandise exporter after the European Union (EU). China's net exports (exports minus imports) contributed to one-third of its GDP growth in 2008. The Chinese government estimates that the foreign trade sector employs more than 80 million people, of which over 30 million works in foreign-invested enterprises. Foreign direct investment (FDI) flows to China have been a major factor behind its productivity gains and rapid economic growth. FDI flows to China in 2008 totaled more than \$80 billion, making it the largest FDI recipient among developing countries and the third largest overall, after the EU and the United States.

A global economic slowdown (especially among its major export markets (especially among its major export markets –

the United States, the EU, and Japan) could have a significant negative impact on China's export sector and industries that depend on FDI flows. There are indications that the Chinese economy is already slowing down. Chinese real GDP growth for January through September 2008 was 9.9%, which was 2.3 percentage points lower than growth in same period in 2007.² Global Insight, an international forecasting firm, projected in October 2008 that China's GDP growth would slow from 11.9% in 2007 to 9.8% in 2008, and to 8.4% in 2009.³ Some analysts contend annual economic growth of less than 8% could lead to social unrest, given that every year there are 20 million new job seekers in China.⁴ According to the International Monetary Fund (IMF), China was the single most important contributor to world economic growth in 2007.⁵ Thus, a Chinese economic slowdown could also have global implications.

3. Exposures from China to Crisis

The extent of China's exposure to the current global financial crisis, in particular from the fallout of the U.S. sub-prime mortgage problem, is unclear. On the one hand, China places numerous restrictions on capital flows, particularly outflows, in part so that it can maintain its managed float currency policy. These restrictions limit the ability of Chinese citizens and many firms to invest their savings overseas, compelling them to invest those savings domestically, (such as in banks, the stock markets, real estate, and business ventures), although some Chinese attempt to shift funds overseas illegally. Thus, the exposure of Chinese private sector firms and individual Chinese investors to sub-prime U.S. mortgages is likely to be small.

On the other hand, Chinese government entities, such as the State Administration of Foreign Exchange, the China Investment Corporation (a \$200 billion sovereign wealth fund created in 2007), state banks, and state-owned enterprises, may have been more exposed to troubled U.S. mortgage securities. Chinese government entities account for the lion's share of China's (legal) capital outflows, much of which derives from China's large and growing foreign exchange reserves. These reserves rose from \$403 billion in 2003 (year end) to \$1.9 trillion as of September 2008.⁸ In order to earn interest on these holdings, the Chinese government invests in overseas assets. A large portion of China's reserves are believed to be invested in U.S. securities, such as long-term (LT) Treasury debt (used to finance the federal deficit), LT U.S. agency debt (such as Freddie Mac and Fannie Mae mortgage-backed securities), LT U.S. corporate debt, LT U.S. equities, and short-term (ST) debt.⁹ The Treasury Department estimates that, as of June 2007, China's holdings of U.S. securities totaled \$922 billion, making China the 2nd largest foreign holder of such securities (after Japan).¹⁰ Of this total, \$467 billion were in LT Treasury securities, \$364 billion were in LT U.S. agency securities, \$29 billion in LT equities, \$28 billion in LT corporate securities, and \$23 billion in ST debt.

If China held troubled sub-prime mortgage backed securities, they would likely be included in the corporate securities category and certain U.S. equities (which include investment company share funds, such as open-end funds, closed-end funds, money market mutual funds, and hedge funds) which may have been invested in real estate. However, these were a relatively small share of China's total U.S. securities holdings. China's holdings of Fannie Mae and Freddie Mac securities (though not their stock) were likely to have been more substantial, but less risky (compared to other mortgage-backed securities), especially after these two institutions were placed in conservatorship by the Federal Government in September 2008 and thus have government backing.

The Chinese government generally does not release detailed information on the holdings of its financial entities, although some of its banks have reported on their level of exposure to sub-prime U.S. mortgages.¹³ Such entities have generally reported that their exposure to troubled sub-prime U.S. mortgages has been minor relative to their total investments, that they have liquidated such assets and/or have written off losses, and that they (the banks) continue to earn high profit margins.

For example, the Bank of China (one of China's largest state-owned commercial banks) reported in March 2008 that its investment in asset-backed securities supported by U.S. sub-prime mortgages totaled \$10.6 billion in 2006 (accounting for 3.5% of its investment securities portfolio). In October 2008, it reported that it had reduced holdings of such securities to \$3.3 billion (1.4% of its total securities investments) by the end of September 2008, while its holdings of debt securities issued or backed by Freddie Mac and Fannie Mae were at \$10 billion. Fitch Ratings service reported that the Bank of China's exposure to U.S. subprime-related investments was the largest among Asian financial institutions, and that further losses from these investments were likely, but went on to state that the Bank of China would be able to absorb any related losses "without undue strain."

However, Chinese banks are not immune to financial problems.¹⁶ There are several indicators that China's economy is slowing, which could present difficult challenges for the banking system in the years ahead, such as a sharp increase in non-performing loans. For example, the real estate market in several Chinese cities has exhibited signs of a bursting bubble, including a slowdown in construction, falling prices, and growing levels of unoccupied buildings. This has increased pressure on the banks to lower interest rates further to stabilize the market, but has raised concerns that doing so could result in higher inflation (which, until recently, has been a major problem for the economy).

In addition, the value of China's largest stock market, the Shanghai Stock Exchange Composite Index, fell by 67% from

January 1 to October 27, 2008. China's media reports that export orders in 2008 have declined sharply. From January to August 2008 toy exports were 20.8% lower than they were during the same period in 2007, and from January to July, more than half of China's toy exporters shut down.¹⁸ The Federation of Hong Kong Industries recently estimated that 2.5 million Chinese workers employed by Hong Kong firms in the Pearl River Delta region could soon lose their jobs.¹⁹ On November 3, 2008, Wen Jiabao warned that 2008 would be the "worst in recent times" for China's economy.

4. China foreign investment

China's attitude to foreign investment in the current economic turmoil is turning out to follow dual tracks – straightforward financial investment is good, foreign control is bad. There are increasing signs of foreign investment being opened up in capital, particularly bond, markets, property and private equity. By contrast, foreign direct investment is only being welcomed in certain areas, and more restricted in others.

Foreign direct investment policy is more nuanced. More industries are being seen as 'strategic', such as automobiles and financial institutions, and the government wants to either protect the IP or control from foreigners. The non-strategic industries, such as logistics and services, are still open game, though, and restrictions on energy saving industries are being removed. Moreover, there is the ongoing battle between central and local governments over FDI, with local governments desperate to attract as much as possible, but central government more mindful of the economic and strategic impact of such investment. While the policies on foreign ownership of securities houses, asset managers and banks are unlikely to be lifted (particularly not after the recent ignominious exit of the foreign banks from the Chinese domestic ones), the main routes to encouraging greater investment are likely to be: (1) to raise the QFII limits substantially, (2) introducing more foreign currency products (such as foreign currency bonds through Hong Kong), (3) easing the examination and approval process for investment, and (4) to gradually improve convertibility of the Yuan.

4.1 QFII Investment

The main channel for investment in domestic securities is through the QFII scheme, which now extends to 70 institutions. The total amount of QFII has reached \$30bn, of which \$10.3bn has got official approval. The demand for QFII still exceeds supply, with a significant shortfall in quotas for 2009, even after the 65% fall in the equity markets in 2008, as private equity and bonds are more than making up the shortfall. While the policies on foreign ownership of securities houses, asset managers and banks unlikely to be lifted (particularly not after the recent exits of the foreign banks from the Chinese domestic ones), the main routes to encouraging greater investment will be a) to raise the QFII limits substantially, b) introducing more foreign currency products (such as foreign currency bonds through Hong Kong), c) easing the examination and approval process and d) to gradually improve convertibility of the Yuan.

4.2 China Equities

Foreign investment in China's stock market has dropped significantly over the past few years. The main inflow came in 2006 when the four commercial banks were raising funds from international sources and is therefore a perfect example of capital retrenchment during the economic downturn. ICBC, Bank of China and China Construction Bank raised around \$12bn in 2005 from large foreign institutions. Now, three years later, the lock-ins has expired and the original investors need to plug holes in their own balance sheets. Bank of America sold 2.4%, out of its total 19% stake, in China Construction Bank; UBS sold its 1.3% shareholding and billionaire Li Ka-shing his \$511m stake in Bank of China. RBS is now expected to divest its £2bn shareholding in Bank of China, while ICBC's shareholders, Goldman Sachs, Allianz Group and American Express have until 28 April 2008 to decide whether to divest their shareholdings.

Insert Chart 1 Here

While these investments are in some ways technically FDI, as the banks were expected to share technological and operational knowledge in return for the stakes, rather than foreign investment, they are indicative of the massive outflow of funds from the equity market by foreign investors either because of cash calls back at home, or disappointment with the precipitous falls in the Chinese stock markets during 2008.

A lot of the tweaking around the edges, such as the numerous changes to stamp duty, has had little effect on the market, but the announcement of the fiscal stimulus package has contributed to a 20% increase in the CSI 300 index, it may be the case that the government concludes that improving the economic fundamentals will make a greater contribution to the health of the equity markets, and the re-entry of foreign investment, than structural changes.

4.3 Private Equities

In February 2008, JP Morgan, Blue Ridge China II and Orchid Capital IV declared that they had raised as much as \$2.62bn within one week. Other data shows that in January 2008, 25 PE investments were reported with a total value of \$235m, almost double the \$103m in 2007, and foreign investors took up more than half of the \$235m. The influential foreign investment companies in the Chinese market include Goldman Sachs, Carey and Prax, of which Goldman's has made 10 investments and Carey and Prax seven. They have mainly focused on education, catering, manufacturing,

media and new energy. In general, industries particularly favorable for foreign PE investment include manufacturing, transportation, energy, finance, service, resource industries, and retail. However, the restrictions on private equity investment are similar to those of corporate FDI, with strategically important sectors generally excluded from foreign investment, with a few notable exceptions. Moreover, the Chinese government prevents foreign private equity from holding the controlling proportion in investee companies. In addition, private equity must be conducted through the proper regulatory sources, and it is also the case that the government is actively trying to promote the development of domestic private equity, in order to counterbalance the foreign money.

Further foreign investment is now also being hindered by the financial crisis, as foreign private equity is facing financing difficulties for their deals, in common with most other countries, and the flotation of overseas-registered companies as red chips has been temporarily halted. With the IPO channel closed, private equity is instead turning to M&A to exit their investments, with 19 M&A deals totaling \$2.6bn in the year to November 30, 2008, compared to \$600m the previous year.

4.4 Foreign Direct Investment

Foreign direct investment has been a driving force for China's economic growth since the 1980s, but the latest data show a significant slowdown in H2 08 and particularly Q4 08, as multinational companies are retrenching. Either they no longer have the capital to invest in overseas expansion, are being forced to close down non-profitable subsidiaries, or have lost faith in Chinese economic growth. As can be seen, along with many other economic indicators, the change in FDI was sharply negative in November 2008, down 36.5%, compared to 64% growth in H1 08.

Insert Chart 2 Here

Insert Table 2 Here

In terms of where the money has gone, the majority of it is destined for manufacturing, particularly high technology and high value added sectors. The other two notable areas are property and the service sector. Property increased dramatically in 2006 and 2007, driven by the soaring property valuations and the construction boom Olympics. However, it ground to a halt and is likely to have seen a decrease in H2 08. By contrast, the service sector, particularly retail and catering, are still being driven by domestic spending and demand, and without the forced retrenchment by multinationals, should still be developing strongly.

5. The Outward Investment

5.1 The Build-Up of Reserves

The incredible build-up in foreign exchange reserves owing to the ever-widening trade surplus has only taken place in the last four years, indicating that it is not an insurmountable, or permanent, problem. Although on a medium- to long-term basis, the trade surplus is expected to continue, owing to the structure of the global economy and China's role as a key manufacturer within that, over the short term, the size of the increase will lessen substantially and may even turn negative in 2009.

In February the trade declined to \$4.8bn from \$39.1bn in January 2009, owing to imports now falling at a similar rate to exports (-24.1% and -25.7% respectively). Exports decreased 17.5% in January, as opposed to the 43.1% fall in imports. Now that enterprises and the state have started buying commodities for both strategic reasons (of which more below) and use in infrastructure spending, imports are decreasing at a slower rate. This leads to expectations that the trade surplus could actually turn negative in the next few months, as exports continue to drop, but domestic consumption stages a slight recovery. On current outlook, this deficit would be too small to make a big dent in the forex reserves, but if trade significantly worsened then it could start falling just as quickly as it has grown.

In addition, over the longer term, around 94% of the trade surplus was caused by processing imported materials, amounting to US\$276.6bn of the US\$295.5bn surplus. If the government stimulus package works as intended, more of the imports should continue to go into the domestic economy, as domestic and infrastructure spending, replaces the export market. With less going out, but similar amounts going in, this inevitably leads to a longer term reduction in the surplus.

5.2 Diversifying

The key way in which the state can offset its forex reserves is by buying foreign assets for internal use. As China is a large consumer of commodities, which have reduced in value, buying up resources is an obvious solution. More nuanced is the IP/technology purchasing, where the country is specifically looking for IP to import, rather than empire-building.

5.2.1 Resource

The most high profile purchases of resources have been Chinalco's \$19.5bn investment in Rio Tinto in return for an eventual 20% stake, and Minmetals' purchase of OZ Minerals for A\$2.6bn (US\$1.7bn), both of which are being studied

by the Australian government.

With such purchases expected to continue (respective governments permitting), this has contributed to a 29% recovery in the Global Commodity Index from November 2008, against the 16% fall in the MSCI World Index, with larger rises of 46% for the TSX Materials index.

Aside from the company purchases, however, the State Reserves Bureau is gradually building up the strategic reserves of oil, steel and copper while the international prices are still low. It has not widely publicised these purchases, as it is conscious of the fact that any major buying will prompt price speculation; for example, it is conducting the oil purchases for the state reserve through Sinopec and PetroChina, rather than independently, and using Minmetals for non-ferrous metals.

The latest draft of the stimulus plan for the oil industry is suggesting that oil reserves be increased by 3m tons in 2009, 6m tons in 2010 and 10m in 2012, which at current prices means spending \$1bn, \$2bn and \$3.4bn in those years respectively. China currently has oil reserve capacity of 14m tons at four storage sites, but is building another eight with 27m cubic metres of capacity this year. The Petroleum Commission recommended in December that the government should also use the estimated 200m tons of idle storage capacity in the private sector to build up more oil reserves.

In addition, China entered into an oil-for-loans accord with Brazil and Venezuela and Russia agreed last month to supply China with 15m metric tons of oil a year for the next 20 years in return for US\$25 billion in loans.

Details over the copper reserves are more speculative, but the State Reserves Bureau has reportedly contracted to buy 300,000 tons of copper to build up its reserves and may buy up to 1.2m tones. Some of this will come from internal sources, but at current prices, building up a 400,000 ton reserve for the next three years would cost \$1.45bn pa.

While there are also plans to build up other non-ferrous metals reserves, including aluminums, tin, zinc and lead, many of these commodities are domestically produced, so will not have an impact on forex reserves. The State Council has also drafted a plan to set up national coal reserves, with a capacity of around 3m tons, but as China exports more coal than it imports, this would only serve to support the local coal miners.

In total, China has in the space of a few months spent \$30bn on resources from state, or state-owned sources (if one annualizes the \$25bn loan) and is expected to continue to pursue these purchases, although may struggle to find similarly large-sized targets as Rio and Russian oil in an increasingly protectionist environment.

5.2.2 Technologies

The second main way to use forex reserves is by buying foreign technology for use domestically. While China has pursued this strategy for many years, this buy-in method using domestic SOEs as the overseas purchasers may now be seen to be a more attractive way of developing domestic markets than attracting FDI for joint ventures in China.

First, it is a better development path for SOEs and strengthens their positions in their markets as they will own the technology, rather than just trying to copy it.

Second, FDI has been falling in recent months as foreign companies and investors retrench and pull back their investment plans in China. Car manufacturers are among that are still planning to increase investment.

Third, foreign companies in dire financial straits may be more willing (or at least less reluctant) to sell some of their technology to the highest bidder in order to bolster their balance sheets. The best example of this is, of course, MG Rover in the UK, where the 2004 rescue of the company turned into farce, and SAIC was able to buy the company, but not the brand name, for £53m. It then released a car based on the Rover 75 model within a year.

5.2.3 SOEs Urged to be More Prudent

There were only 12 cases of Chinese enterprises' buying American enterprises in 2006, amounting to US\$70m, and 21 in 2007 amounting to US\$8.5bn, including Morgan Stanley and Blackstone. In 2008 there were 22 worth a total of US\$917m. Due to the financial crisis, however, these SOE overseas assets have suffered from heavy losses and have led to mounting debts.

As a result, SASAC's overseas investment approval has become stricter, with new investments and acquisitions having to meet higher standards and the risk management strengthened. The central SOEs investing overseas are required to first beware of risks and SASAC says that the government requires central SOEs to be prudent in three areas: a) overseas investment and acquisition; b) investment with high risks, such as financial derivatives; and c) the strategic investment besides the enterprise's major business. Of the three types, overseas investment is seen to have the highest risks.

Meanwhile the private sector accounts for around 11% of the number of overseas investments, and around 20% of the value in 2007, although public limited companies and private enterprises only had \$3bn of foreign investment. Although private companies are being encouraged to invest overseas, many have been hit hard by the financial crisis, and probably will not step back into the market until 2010.

5.2.4 Importing IP

The main market speculation has been whether Chinese financial institutions or car makers will step in to save the ailing Western companies. There seems to be little chance of another financial sector transaction being approved under the stricter guidelines, following the losses on Morgan Stanley, Blackstone and Fortis. Although there is a desire for the expertise of long-established financial groups, the Chinese companies are still seen to be too wary of the potential losses from the sector, as well as the problems of trying to learn from and integrate companies whose whole business models are being undermined.

The car manufacturers hold more promise, as the technology can be transferred, but purchases such as Hummer would appear to be antithetical to the government's pro-small car auto stimulus package.

So far, the most concrete move was the European trade trip, which focused on electromechanical devices and equipment, including autos, machine tools, telecom equipment, and aircraft engines. Enterprises engaged in the purchasing group included China Unicom, Hainan Airlines, China National Aero Technology Import and Export Corporation.

The total amount agreed was more than the \$15bn yuan expected and included a \$1.1bn deal between Hainan Airlines and Rolls-Royce, including flight stimulators, \$2.2bn of orders for BMW and Mini cars, and \$300m on Swiss machinery, chemicals and pharmaceutical products.

While direct imports of goods were the main deals announced, this trip demonstrated that the main focus for Chinese purchasing is domestic transfer of technologies. The key areas were 3G mobile phone technologies in Germany, aerospace technology in the UK and Germany, and energy saving technologies in Germany and Spain. As well as being areas of strategic focus for building domestic strength (the TD-SCDMA technology, the space plan, and the high installed renewable capacity), they are all readily importable technologies in areas where China does not yet have a domestic lead.

6. Retaining Value

The combined total of these commodity and technology asset purchases in 2009 alone is an estimated \$45bn on an annual basis, equal to a total commitment of \$77bn (including the entire Russian oil loan and all three years of the reserve purchase plan). While impressive, it only accounts for 2% of the forex reserves in 2009, or 4% overall. Although we expect the overseas purchases to continue, they may only reach a total of 10% by the end of the year, leaving 90% of forex exposure to manage.

Around 70% of this forex exposure is estimated to be in US\$ securities, equivalent to US\$1.3bn. The Chinese government is therefore stuck in a situation where it has to minimize losses on this exposure and choose the least value-destructive way of paying down some of these assets.

The largest holdings are US Treasuries, and it has so far continued to support the US government issues, notably in late 2008, when purchases went from around \$15bn in July to \$66bn in October during former Treasury secretary Hank Paulson's last visit. The rate in November and December slowed down, however, with the amount in November \$29bn and December around \$15bn.

Although the Chinese does not want, or need, to keep buying Treasuries in such large amounts in 2009 it is expected to continue to fund purchases as this protects both the value of the bonds themselves as well as the value of the dollar.

Insert Chart 3 Here

The difference will be that China is expected to focus on the short end, as this will avoid the threat of future US inflation eating into the value of the holdings over time. This may lead to a shortage of demand at the long end and will also hinder the US in inflating its way out of debt.

There are, however, calls for some US\$ assets to be sold both to fund domestic stimulus packages and overseas acquisitions. In the table above, the US Treasury figures show China to have very low holdings of corporate debt and equities in June 2007. There is general speculation that the holdings in equities surged during 2008 to substantially over \$100bn by June 2008, however, while corporate debt is also considered to be substantially more than the figure reported in 2007.

For equities, with most of the holdings likely to be in Dow Jones index companies, the size of these shareholdings will have fallen by 42% since June 2008, leaving an estimated \$80-100bn of equities remaining. Although selling these equities would realize these losses, this is potentially preferable to selling down Treasuries, as the total amount of losses would be 300bn-500bn yuan, rather than potentially over 1trn yuan.

Selling down equities is also more politically palatable, as there is the counter-argument that the Western governments are selling down Chinese equities. From a domestic perspective, this has taken the form of the Western banks selling the stakes they bought in the Chinese institutions in 2005, with 60% UK state owned RBS selling HK\$18bn shares in Bank of China, UBS selling US\$808m, US government-backed Bank of America selling US\$2.8bn in CCB, and Goldman

Sachs, Allianz and American Express due to start reducing their stakes in ICBC in May.

Instead of holding US\$ equities, the \$200bn state investment fund, CIC has instead suggested that it may keep a closer eye on the Taiwanese and Hong Kong markets as places for investment.

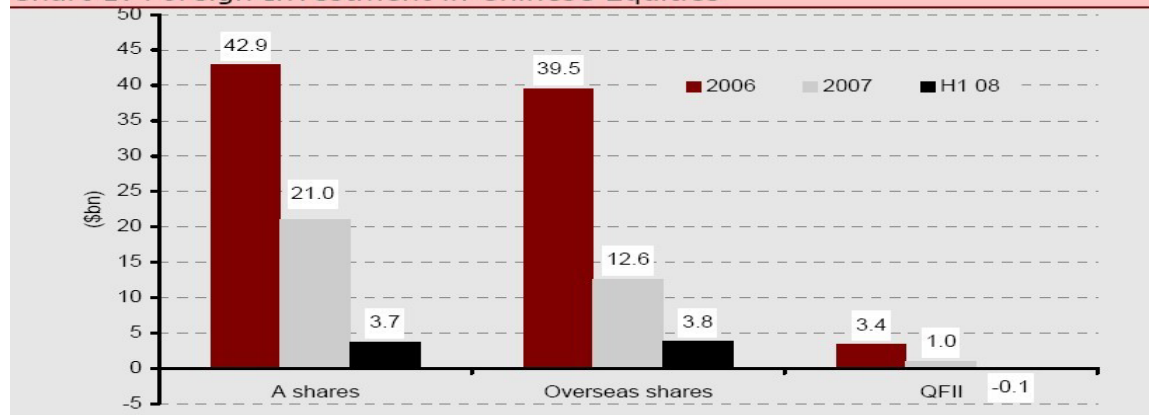
7. Conclusion

China has made great strides in its reforms to open up its market for foreign direct investment. Among developing countries, China is now the largest recipient of foreign capital. Foreign direct investment is still concentrated in the southeast and the coastal areas, even though we see a slow process of diffusion. Foreign-invested firms have played an increasingly important role in Chinese economic reform. It is also a large part of China's trading activities with the rest of the world. While there may be some differences in interpretations with respect to the role of foreign investment in raising China's GDP, few would deny that without foreign investment, China reform will eventually suffocate. China foreign and outward investments need a re-structure policy options during the crisis in the world.

References

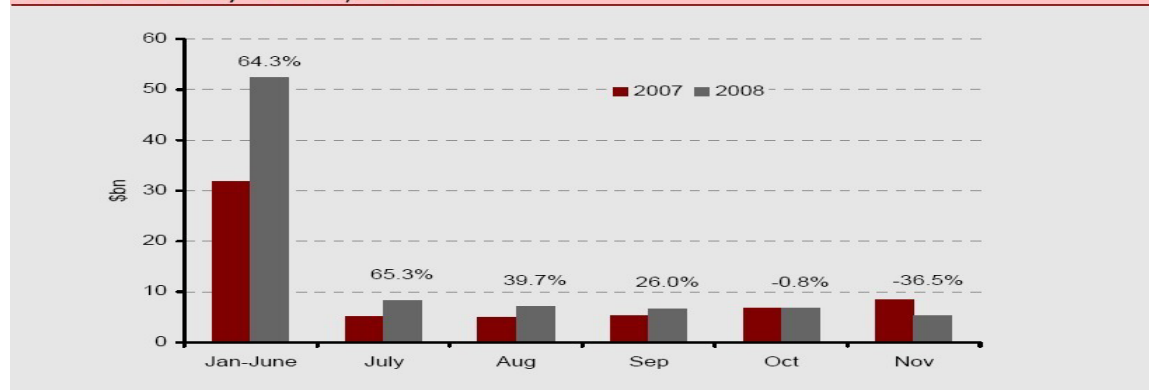
- Alejandro Izquierdo, and Ernesto Talvi. (2006). *Phoenix Miracles in Emerging Markets: Recovering Without Credit from Systemic Financial Crises*. NBER Working Paper No. 12101 (Cambridge, Massachusetts: National Bureau of Economic Research).
- Almanac of China's Foreign Economic Relations and Trade. Beijing: China foreign Economic Relations and Trade Publishing, various years.
- Andrews, Michael. (2006). Issuing Government Bonds to Finance Bank Recapitalization and Restructuring: Design Factors That Affect Banks' Financial Performance, in *Bank Restructuring and Resolution*, ed. by David Hoelscher (Washington: International Monetary Fund).
- Ariyoshi, Akira, Karl Habermeier, Bernard Laurens, Inci Ötker-Robe, Jorge Iván Canales Kriljenko, and Andrei Kirilenko. (2000). *Capital Controls: Country Experiences with Their Use and Liberalization*, IMF Occasional Paper No. 190 (Washington: International Monetary Fund).
- Bai, Chong-En, Yingjuan Du, Zhigang Tao and Sarah Tong. (2002). *Geographic Concentration in China's Industries: Evidence for Conventional Theories and Local Protectionism*, mimeo. University of Hong Kong.
- Basurto, Gabriela and Atish Ghosh. (2001). The Interest Rate–Exchange Rate Nexus in Currency Crises. *IMF Staff Papers*, Vol. 47 (Special Issue), pp. 99–120.
- Blomstrom, Magnus. *Host country benefits of foreign investment*. NBER Working Papers 3615, Cambridge, USA.
- Calvo, Guillermo. (2006). Monetary Policy Challenges in Emerging Markets: Sudden Stop, Liability Dollarization, and Lender of Last Resort. NBER Working Paper No. 12788 (Cambridge, Massachusetts: National Bureau of Economic Research).
- Cebotari, Aliona and others. (2008). *Fiscal Risks: Sources, Disclosure, and Management* (Washington: International Monetary Fund, Fiscal Affairs Department).
- Cheng, L.K. and Changqi Wu. (2000). Determinants of the performance of foreign invested enterprises in China. Department of Economics, *Hong Kong University of Science and Technology*.
- Cheng, L.K. and H. Zhao. (1995). Geographical Pattern of Foreign Direct Investment in China: Location, Factor Endowments, and Policy Incentives. Department of Economics, *Hong Kong University of Science and Technology*.
- Cheng, L.K. and Y.K. Kwan. (2000). What Are the Determinants of the Location of Foreign Direct Investment? The Chinese Experience. *Journal of International Economics*, 51: 379-400.
- Cheng, Leonard K. (2001). Economic benefits to China and impact on Hong Kong firms. *China Economic Review*, 12, 415-18.
- China Statistical Yearbook. Beijing: China Statistics Press, various years.
- Fung K.C., Hitomi Iizaka and Stephen Parker. Determinants of U.S. and Japanese Direct Investment. *Journal of Comparative Economics*, Forthcoming.
- Fung, K.C., Hitomi Iizaka, Chelsea Lin and Alan Siu. (2002). *An Econometric Estimation of Locational Choices of Foreign Direct Investment: The Case of Hong Kong and U.S. Firms in China*. Mimeo, University of Hong Kong.
- Fung, K.C., Lawrence J. Lau and Joseph Lee. *U.S. Direct Investment In China*. AEI Press: Washington, D.C., forthcoming.
- Kiminami, Lily Y., and Akira Kiminami. (1999). Intra-Asia trade and foreign direct investment. *Regional Science*, 78: 229-42.

Chart 1: Foreign Investment in Chinese Equities



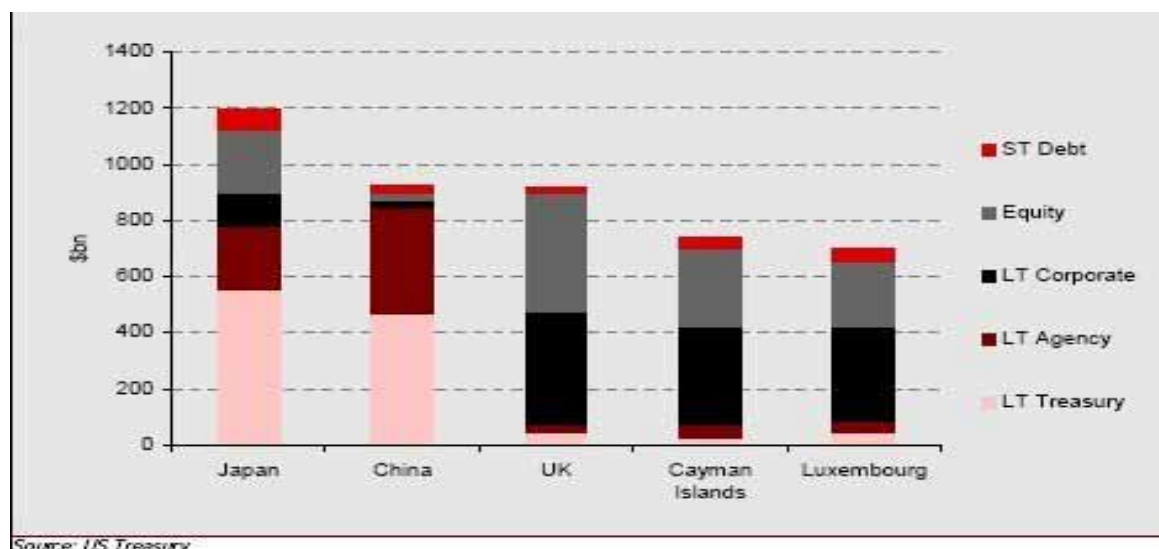
Source: SAFE

Chart 2: FDI by Month, 2008



Source: MOFCOM

Chart 3. Top 5 Holders of US Securities



Source: US Treasury

Table 2: FDI Sector Distribution and Growth

Sector	Value (\$bn)	Growth rate (%)		
	2006	2006	2007	2008
Agriculture, Forestry, Husbandry & Fishery	0.6	-17%	33%	66%
Manufacturing	40.1	-6%	27%	24%
Telecom and electronic equipment	8.2	6%	--	--
Electronic Appliances	3	1%	--	--
Non-Financial Service Industry	14.7	26%	--	--
Property	8.2	52%	98%	1%
Social Service	--	--	104%	59%
Retails and Catering	--	--	52%	38%
Transportation and Communication	--	--	34%	6%
Financial Insurance	6.4	-47%	22%	19%

Source: SAFE



Spot Natural Gas Prices: A Theoretical Party to Party Bargaining Framework

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Abstract

Whilst some regional energy markets appear to be integrating, modelling the pricing of natural gas exports in an imperfect global spot market remains a difficult task. For the sake of analysis, this paper proposes the expansion of a theoretical global party to party spot gas price bargaining model to capture lagged daily prices of the major competing fuels and values of a global economic indicator in the world stock market price index. Vector autoregressive based tests provide no evidence of cointegration, however tests of exogeneity show that gas prices and gas price changes are primarily influenced by oil prices and oil price changes. Within this framework, it is found that the oil price and oil price changes are influenced significantly by global stock price index values and index value changes and the coal price index values and index value changes. The model put forward is purely for preliminary analysis but it shows potential. All markets need to become larger, more globally integrated, more informationally efficient and mechanisms to arbitrage the various energy markets would need to be established before a final global gas spot price index is possible.

Keywords: Gas pricing, Stock prices, Oil prices, Economic expectations, Benchmark, HH

1. Introduction

Cartel pricing for gas, as suggested by some that support the OPEC oil pricing model, is generally rejected by free market economists. Based on studies of cartel versus competitive behaviour, collusive pricing behaviour is rejected in this paper. Economic theory and fact says that cartel behaviour is monopoly pricing. Cartel behaviour is not consistent with market efficiency. It interferes with supply by imposing production limits. It distorts prices. In the late 1970s the OPEC cartel has been blamed for price hikes that caused the energy crisis of the 1980s and subsequent global financial instability (For example, the Latin American debt crises of the late 1980s early 1990s). A global benchmark price for gas determined by world supply and demand is ultimately desirable, as it will, as in any other market; result in the most efficient allocation of scarce and depletable resources.

An increasing number of countries are concerned with energy costs and environmental issues surrounding nuclear, coal and oil power generation for industry and households. Domestic and foreign direct investment has mobilised funds for gas as an alternative energy source with funds applied to exploration and infrastructure for transport, liquefaction, storage and power generation. However, despite the lack of a global integrated market, pricing of natural gas in some domestic and regional markets is making progress towards efficiency. There is a greater choice of natural gas contracts through deregulation and restructuring in many countries. For example, in the USA since 1984 there has been a separation of natural gas supply from interstate pipeline transportation, deregulated natural gas production and the wholesale market, and competition has been introduced in interstate pipeline transportation. In 1986 the British government privatised British Gas. In 1992, Argentina separated and then privatised natural gas production, transportation and distribution. Mexico opened up its market to competition in 1993. Hungary separated and privatised distribution companies in 1994-95. Privatisation is increasingly being seen as a means of improving efficiency and increasing investment. On the global supply side, gas reserves are substantial for the time being and are often found along-side oil reserves in many countries. For example, Australia has enormous reserves from the oil producing area North West Shelf. It will compete strongly with Middle Eastern and other suppliers over the next decade.

Whilst contract formulae or specific contract prices are not in general for public knowledge, LNG pricing for importing countries is receiving greater attention as more countries move over to gas energy. The method of import pricing of LNG is known to differ from region to region. The pricing is usually linked to oil prices but which oil prices are they linked to? In Asia (For example Japan) the import price formula is based on a basket of crude oil prices commonly referred to as the Japanese Crude Cocktail (JCC).

However, this is not the case in China, which has provided for lower prices and weaker linkages to oil prices. It may be that the Chinese rely on high volumes in large contracts to entice exporters such as Australia into lower prices despite global conditions of excess demand (For example, the first Chinese project in Guangdong, negotiated in 2002 with the first delivery June 2006). Of course the Chinese regard this price as a precedent price and will always negotiate towards this lower bound. (Note 1) Australian exporters will, however, negotiate in future towards the upper bound which could be in excess of, for example, the bound negotiated by Japanese importers. Figure 1 is cited in Eng (2006) and shows the differences in the Japanese and Chinese pricing models for LNG gas imports.

European gas prices are linked to Brent oil prices. In Europe gas imports compete with pipeline imports and indigenous supplies of gas in many European countries. The USA market is re-emerging as indigenous supplies and Canadian imports are depleted and LNG imports grow. The USA gas market is the most dynamic of all regional markets. Imports are growing and are sourced through both spot and short-term contracts.

Eng (2006) builds a case for the adoption by New Zealand of a lower bound Chinese pricing model for LNG imports. These imports may not necessarily be sourced from Australia but the distance from Australia to New Zealand compares to that from Australia to China. Whilst the case for the Chinese model is compelling for New Zealand, it is not for Australia, as the volumes required would be expected to be substantially less and Australia has already negotiated closer to the upper Japanese pricing bound with other countries. (Note 2) It is clear that a pricing formula for both forecasting and negotiation of global gas prices is needed. Whether or not such a formula is currently practical in such an inefficient energy market is another question. At least a spot pricing model can and should be put forward for preliminary analysis.

2. Market Background

Whilst the regional natural gas markets are becoming more deregulated, integrated and efficient, excess demand in the global market is forcing up both spot and contract prices. Supply is unable to adjust to demand because of delays in infrastructure completion for pipelines, port facilities, liquefaction plants and shipping. The spot market is believed to account for between 10% and 20% of the total gas market. Most gas is sold on long-term fixed price contracts. Brito and Hartley (2007) have noted recent changes in the liquefied natural gas market where shorter term multinational trades are being favoured relative to long-term bilateral and project specific contracts. Brito and Hartley find that just as oil markets had changed, changes to the gas market structure in short-term trades could occur quite rapidly. A global spot benchmark price for natural gas is becoming more important as a basis for exporter and importer price negotiations. Such a benchmark will also be useful in forecasting and to manage price risk in long-term contracts for both buyers and sellers. Deregulation in the natural gas industry has produced two types of market. The first is a production market where gas is traded as a commodity. This includes the export market for liquefied natural gas (LNG). There is also a market where participants can trade the shipment of gas through conventional sea shipping and through pipeline systems. Both involve substantial transportation costs. The socially optimal outcome in a country or region is where there is a simultaneous clearing of natural gas production and transportation markets. To achieve this, two models have been developed and discussed by Juris (2005). The easy to implement and popular "bilateral trading" model relies on decentralised bilateral negotiations. The "poolco" model has great potential and relies on a centralised entity that coordinates individual transactions. The drawback of the latter model lies in problems of sharing and processing of information. In order to simplify the analysis this paper develops an expanded global party to party bargaining model.

It is useful to first look at constraints for natural gas as an energy alternative. According to Okogu (2002), there are several factors that restrict the development of natural gas as an energy source. Impediments are the opaqueness of gas contracting processes and the absence of a global market. Okogu (2002) thinks that foreign direct investment might monetise some of the stranded reserves but, the success of that depends on investor friendly climates. These include more liberal tariff regimes in domestic markets. It is clear that political risk factors act to inhibit necessary investment in natural gas infrastructures to free up supply bottlenecks. This is the subject of future research as it is evident that political risk factors will also affect pricing.

The USA and Europe are important potential markets for Australian LNG. The USA market players, concerned with depletion of resources at home and in Canada, continue to examine alternatives for diversification of suppliers. There is also concern about supply continuity as the pace of industrial usage of gas increases. There remains a debate in Australia as to whether or not prices negotiated for large export contracts in the past were below the market price. Perhaps this was due to the fact that a satisfactory benchmark price was not available or had not been properly considered.

It is expected that the global gas market will become increasingly liquid. Exporting countries are endeavouring to diversify their buyers. Importing countries are trying to diversify their sources. Producing countries have enormous reserves that need to be brought to the production stage. Consumer countries are investing heavily in port, liquefaction, storage and pipeline infrastructures. Japan is investing in increasing its LNG marine shipment capability.

However, at the time of writing, conditions of excess demand exist. Importers are unable to purchase gas in a global market that has been unable to keep up with production and transport infrastructure. Even in the spot market ships are being re-routed according to prices offered by buyers when the ships have left port. This situation will change as supply infrastructure catches up over the next decade. The global market players are striving to match supply with demand.

Given these market conditions, the purpose of this paper is to examine the feasibility of an interim spot benchmark pricing model for natural gas, taking into account a variable that partially reflects supply and demand forces and variables that represent replacement energy sources in an expanded party to party bargaining model. If an acceptable and available series of spot gas prices can be significantly explained by these variables, an interim benchmark gas pricing model will be provided to assist in party to party spot or contract price negotiations. Such a model will also serve as a partial gas price forecaster.

3. Theory and literature

In international trade in commodities, an international spot price reference point inevitably evolves. For example, West Texas Intermediate is the reference point for sweet crude oil traded in the Atlantic basin. Brent Oil is the benchmark in Europe. The National Balancing Point (NBP) is the gas price benchmark in the UK. To commence an analysis of what the benchmark should be it necessary to differentiate the natural gas industry in areas of production, pipeline transportation, shipping transportation, trading and supply, and distribution.

There are of course different costs associated with these areas in different economies with different levels of economic development (and different levels of political risk). The costs of factors of production differ from country to country. Nevertheless, in a global market place, a basic export price is needed as a benchmark. This basic indicator price will be adjusted upwards according to differing costs of transportation, trading and supply infrastructures, and infrastructures relating to distribution in bilateral trading relationships.

3.1 Prices and market forces

According to theory and the Law of One Price as revisited by Asche, (2000), in an integrated market, prices on homogenous goods from different producers and suppliers should move together. Price differentials should only indicate differences in transportation costs and quality. In forming a benchmark spot export price as a basis for negotiation, the focus should be on a standard quantity and quality of natural gas on a free on board (fob) basis from the terminal. This paper posits that it is more important that a spot fob benchmark price be established for ex-terminal gas irrespective of whether it is loaded into a pipeline or onto a ship in the form of LNG.

Consistent with this theoretical base, a global spot benchmark for gas should be based on the costs involved in the natural gas production segment and on the operations necessary to deliver the gas from the wellhead to the terminal in the exporting/producing country. The benchmark would exclude the sunk costs of exploration and drilling. It would also exclude the international shipment transportation costs, but include the average costs in each export/producing market (weighted by volumes exported) in production and gathering at the wellhead, and only transportation costs to the terminal in the exporting country.

The benchmark price should also include the costs of standardising quality at the terminal in the exporting/producing country. This would represent a fair fob export benchmark price and differing costs of these operations would be reflected in a unit of currency (for example, the US dollar or the Euro) in different exporting/producing countries. Exporter/producers and importer/consumers would need to place credibility in a formula for a benchmark as an indicator only for the global market price. It may be necessary for a neutral central authority to collect data, to quote prices daily and to supervise standardisation.

The benchmark would be a minimum price. Individual transaction prices would need to be adjusted upwards by agreements between importers and exporters based on the amortised costs of exploration and drilling, trading and supply costs, transportation and distribution costs, and the application of country and political risk premia which are all unique in each bilateral trading arrangement. On the assumption that global supply of gas to terminals will immediately adjust to demand in a developed global marketplace, the fob export price benchmark ultimately might then depend on excess demand conditions.

Mazighi (2005) rightly suggests that, in the long-term and in accordance with economic theory, the evolution of prices is guided by supply and demand. Price changes from period to period ($P_t - P_{t-1}$) will adjust to excess demand (EX_t).

$$P_t - P_{t-1} = \alpha + \beta EX_t + e_t \quad (1)$$

If Beta is close to one and Alpha is close to zero it means that prices are driven by their fundamental values in the long-term.

However, Mazighi (2005) found that more than 80% of gas price changes in the US market were not driven by their fundamental values. In other words other factors need to be taken into account in a market not yet informationally efficient, to account for gas price changes. At the early stage of the development of the global market there are major market informational asymmetries that create a massive divergence between theory and reality.

Krichene (2005), in another attempt to engage economic theory, developed a simultaneous demand and supply equations model for world crude oil and natural gas markets, adopting the hypothesis of rational expectations given the role of market information in determining supply behaviour according to Muth (1961). Natural gas output in billions of cubic metres per year and the natural gas nominal price in US cents per cubic feet were adopted to represent supply and demand conditions.

The model confirmed low price and high income elasticities of demand for both oil and natural gas. However, the explanatory power of such a model would not be expected to be substantial given the absence of an integrated global market. More realistic models operating in a fragmented global natural gas market need to be specified if the ultimate aim is to explain an interim global benchmark price. Such a model would need to include not only the prices of major replacement fuels but also variables that contribute to the explanation of global supply and demand conditions. Together these variables, if selected from both theoretical and practical bases, should ideally capture most of the factors that affect supply and demand. On the bases that stock markets are proven economic indicators this paper examines the global stock market index as a proxy to partially reflect or provide an indication of supply and demand forces for natural gas.

3.2 The relationship between oil, stock, coal and gas prices

It is reasonable in light of previous evidence that the relationship between gas prices and oil prices be continually tested. Though the evidence is mixed, much of it suggests growing integration of regional energy markets. Coal markets need to be included in any analysis as coal is a major replacement fuel. In the case of coal, there is evidence that the global markets are becoming more integrated and efficient. For example, Warell (2006) finds that both steaming and coking coal markets are showing signs of global market integration demonstrated in a stable long-term cointegrating relationship between price series in different world regions. Part of the determination of the price of gas must be related to the price of oil and coal as the most utilised alternative or substitute fuels. Studies such as, Pindyck (1999) and Serletis and Rangle-Ruiz (2004) have used cointegration tests to examine the relationship between oil, coal and gas, and oil and gas prices respectively in North American markets with mixed results in terms of the strength of the cointegrating relationships found.

Pindyck investigated 127 years of data in oil, coal and natural gas and questioned whether or not models of reversion to stochastically fluctuating trend lines can assist in the forecasting of prices over 20 year horizons. Serletis and Rangle-Ruiz, in an investigation of daily oil and gas data from 1991 to 2001 find that North American gas prices are largely defined by the Henry Hub (HH) gas price. In addition there had been a decoupling of North American gas and crude oil prices over the period due to deregulation of these markets after an investigation of shared trends and prices using the HH and the West Texas Intermediate crude oil price. That is, the markets were integrated but the relationship was weakening.

Asche (2006) examined whether or not decoupling of natural gas prices from prices of other energy commodities (such as oil and electricity) had taken place in the liberalised UK and the regulated continental gas markets after the Interconnector had integrated these markets after 1998. Asche finds that monthly price data from 1995 to 1998 indicated a highly integrated market where wholesale demand appeared to be for energy generally.

A comprehensive study of the North Western European market was undertaken by Stern (2007) who questioned the rationale behind the continuing link of gas prices to oil product prices in continental European long-term gas contracts. The choice between burning oil and gas products during the 1970s and 1980s was determined in a robust way by price incentives, but the continuing strength of this rationale is doubtful today. Stern implies that whilst there is a dominant influence of oil on gas prices in Europe, this will weaken as the scale and speed of competition increases.

Bachmeier (2006) finds, using daily price data for five different crude oils that the world oil market is a single highly integrated economic market. In addition he finds that the coal markets in the United States, while cointegrated, show a weaker degree of market integration. He also finds that crude oil, coal and natural gas markets in the United States are only weakly integrated. He concludes that there is not a primary energy market in the United States.

Most researchers agree that the price of oil has something to do with the price of gas. Some also agree that other energy prices such as coal are related to oil and gas prices (For example, Bachmeier, 2006; Pindyck, 1999). If this is the case in North America as well as in Continental Europe, then an interim global gas pricing model remains possible, with oil and coal prices partial forecasters of gas prices. The rationale behind such a model would lie in its joint purpose as partial price forecasting model and an indicator model for party to party bargaining for replacement fuels.

The question is, in a global context, which proxies should be used. Evidence has been provided that OPEC oil prices drive other global oil prices, including those in the USA (Simpson, 2006). On this basis OPEC prices are a logical proxy for oil prices. The HH gas price is sourced from the largest, most developed and efficient USA market. It follows that the HH prices be used to proxy gas prices in any basic analytical model for replacement fuels. Coal markets appear to possess a degree of global integration and global indices (For example, the Global Insight Coal Price Index) for both steaming and coking coals are available (Warell, 2006). Whichever proxies are selected according to logical criteria, the caveat remains that the global oil market is not informationally efficient and the global gas market is not well developed. In the model in this paper stock prices in a global index are deemed to be a reasonable proxy for global supply and demand conditions that should in part spillover to global energy prices.

Oil is the primary replacement fuel. Mazighi (2005) noted that the NBP was significantly related to oil prices. There is also evidence of a statistically significant relationship between oil and gas prices and industrial stock prices. Mazighi (2005), in testing the long-term behaviour of the UK National Balancing Point (NBP) gas prices found a relationship between the changes in the volume of manufactured production using ordinary least squared (OLS) regression analysis. As oil is used as a source of industrial power it follows that there is a relationship between industrial stock prices as well as alternative energy prices.

An increased amount of gas consumption is for industrial power generation and that part of demand for gas there fore arises from the industrial sector. The share of natural gas as a global energy source has been on the increase since the mid 1970s (Okogu, 2002) and it will increase substantially over the next decade with new producers (such as, Australia) strongly developing their export capacity. With the present lack of openness of the global markets, can it be said that gas prices should be fully indexed to oil prices when global oil markets are also not efficient? This investigation goes further to combine a stock market indicator with price indicators of competing energy sources in oil and coal.

3.3 A basic party to party bargaining model

International gas pricing is usually undertaken through negotiations between buyers and sellers on a bilateral basis. Okogu (2002) refers to a complex interplay of factors that relate to the general conditions in a country, the quality of the product, market conditions and taxation environments as well as a global pricing basis according to supply and demand. The factors include whether or not a country is gas poor or gas rich, who is to share the risks, the reliability of the supplies and flexibility of delivery, the quality of the product and what the competing fuels are.

A party to party bargaining model is expanded for gas pricing by Okogu (2002). The model posits that one of the principles of gas pricing is to relate the price of gas to its value in the market for competing energy sources (For example, oil).

Relating the spot price of gas to the price of a competing fuel, as in Okogu (2002), produces the following model.

$$P_{G_t} = \alpha + \beta P_{o_t} + e_t \quad (2)$$

Where

P_{G_t} Is the price of gas at time t.

α Is a base spot price of gas agreed at the outset.

β Is the pass-through price coefficient negotiated under the contract.

P_{o_t} Is the price of the competing fuel (for example, oil).

e_t Is the residual term for the regression which represents an intertemporal gas price escalation coefficient where $e_t = 0$ except in those periods where there have been price adjustments.

It is evident that the caveat on strong global gas market expansion will be whether or not FDI can be mobilised in a high development cost environment to release “stranded” resources. Natural gas reserves should substantially increase over the next decade. Even greater competition with oil as an energy source will result. Gas is regarded as a cleaner and less expensive energy source than oil or coal. It is found along-side oil in many producing countries. It follows that the relationship between gas prices and oil prices needs to be tested. This is because part of the determination of the price of gas must be related to the price of oil as the most utilised alternative or substitute fuel. However, coal is also a strong

alternative energy source. The study in this paper also examines the impact of coal prices which is another major competing industrial power source.

3.4 Is the HH an acceptable benchmark price series?

It remains necessary to specify the endogenous variable in the benchmark/party to party bargaining model. If the specified variables in this study explain a significant proportion of the variance in the HH then it is put that the HH may be an acceptable and available interim gas pricing benchmark. The questions are as follows: Which is the most developed and deregulated market and thus the most likely global leader in global gas market integration? Which market is the greatest consumer of natural gas? Which market supplies itself to the greatest degree? Which market is showing the greatest transition from for example, coal and oil fired power generation for industry? Which market has an established benchmark for natural gas already? Is this benchmark directly related to demand conditions under conditions of immediately adjusted supplies and to other factors such as global stock prices, oil prices and economic expectations?

The price benchmark in the Americas is the Henry Hub (HH). This price is determined at a physical location in Louisiana USA and has a greater potential than the NBP price in UK as a candidate to become a global benchmark price for natural gas (Mazighi, 2005). This is because more gas in the UK market is sold on long-term contracts with prices indexed to oil. Even though the HH is said to show less normality in fluctuation than the NBP price, the USA is the largest market (estimated at more than 660 billion cubic metres compared to 100 cubic metres in the UK in 2007).

The HH prices are quoted on the New York Mercantile Exchange (NYMEX) on a daily basis. The HH price represents standardised quantity and quality of gas in terms of methane content percent, heat value per cubic metre, and carbon dioxide and other impurity content percent. Other requirements of a benchmark are probably more likely to be met by the HH rather than NBP. It is more likely that suppliers and consumers can meet or connect electronically and offer exchange of physical for physical product, futures against futures and futures against physical product swaps in the USA and the Americas.

The Americas market is more likely to be able to report continuous information with transparency and without discrimination or privileged access to that information. In addition, that market has a larger number of players so that the market is liquid. Supply can quicker adjust to demand without any need for discounting. It is more likely that the HH will be predictable in the short-term and converge to equilibrium with other gas prices in the long-term.

The issues in this study are as follows: Are world stock prices, oil and coal prices and the changes in these prices significantly related to HH gas prices and the changes in these prices? Are the specified explanatory variables demonstrated to be exogenous? If the answer to these questions is yes, it is posited that the pricing model could in future become a useful interim benchmark spot price or indicator spot price for natural gas, which may assist in party to party bargaining.

4. The model and methodology

It is quite clear that any interim model for preliminary analysis must assume that energy markets are integrated and efficient and that mechanisms for the arbitraging of the different energy markets are in place. It would assume that all energy users in industry can easily move between different methods and fuels for power generating. Despite the fact that most natural gas is sold on long-term contracts, it is a spot pricing model that is being proposed and therefore it is appropriate to study daily data. In light of the above the paper seeks a theoretical model for analysis, but one that may prove useful as an interim spot natural gas price benchmark in the absence of any alternative.

This paper examines daily natural gas prices in an optimally lagged VAR in order to run VAR based cointegration and causality tests. It extends exogeneity testing to run variance decomposition analysis. The exogenously treated price variables are for coal, oil and global stock market prices. It combines a basic econometric model using global stock price index values to control for economic factors and the competing energy prices of OPEC oil prices and coal prices in an expanded party to party bargaining model.

Even though the oil market is inefficient and dominated by the production allocation behaviour of the OPEC cartel, daily OPEC oil prices are selected as the proxy for oil prices on the basis of a study by Simpson (2006) which identified OPEC oil prices as the principal driver of world and US oil prices. There is no real choice here. The OPEC countries control the oil market.

Coal fired power generation is also a significant contributor to industrial energy as a replacement fuel and the prices of that power source need to be included in any party to party bargaining model. Initially a regression model is specified to investigate unlagged relationships between prices. Based on Equations 1) and 2) in the literature the following model is put forward.

$$P_{G_t} = \alpha_t + \beta_1(P_{S_t}) + \beta_2(P_{O_t}) + \beta_3(P_{C_t}) + e_t \quad (3)$$

Where:

α_t Is the base price of gas agreed to at the signing of the spot contract.

P_{G_t} Is the daily spot gas price.

P_{S_t} Is the daily stock market price.

P_{O_t} Is the daily oil price.

P_{C_t} Is the daily coal price.

β_1, β_2 and β_3 are the pass through price coefficients negotiated under the spot contract as applicable to world stock market price index value, global oil price and global coal price.

e_t Is the regression residual which represents an intertemporal price coefficient not explained by stock, oil or coal prices and $e_t = 0$ except in times of price adjustments.

The specified exogenous variables as stated above are daily world stock price index values, oil prices and the coal prices. It is proposed that increases in economic indicators such as oil, stocks and coal prices are leading signals to gas producers to increase their prices to maintain market share in a competitive industrial power producing market.

On the bases of the verification of prices as integrated non-stationary processes (with first differences (price changes) being proven as stationary) a VAR model is specified with gas prices as the endogenous variable. The VAR based cointegration tests (Johansen, 1988) and causality tests (Granger, 1988) are undertaken to confirm whether or not there are long-term equilibrium relationships on optimally lagged data and to confirm the gas price variable's endogeneity in the short-term. Variance decomposition analysis in prices and price changes is also used to confirm causality.

The model to be tested is the VAR. The specification of the VAR is as follows:

$$P_{G_t} = a(P_{G_{t-1}})....a(P_{G_{t-n}}) + b(P_{S_t}) + c(P_{O_t}) + d(P_{C_t}) + e_t \quad (4)$$

The above equation also implies that all other variables in stock, oil and coal price variables are lagged along with the gas price variable. As part of the preliminary analysis, non-stationarity of the data is tested using Augmented Dickey-Fuller (ADF) tests (Dickey & Fuller, 1981) with MacKinnon critical values (EvIEWS, 2001). Durbin-Watson (Durbin & Watson, 1971) tests are applied to test for serial correlation in the errors of the regressions. White tests are applied to test for heteroskedasticity in the errors of the regressions.

5. Data

Daily data are extracted for the period January 1st, 2002 to January 1st, 2007. This period includes a short period of steady prices to the end of 2003 and strong price increases thereafter for the majority of the sample period. Oil prices have risen strongly since the end of 2003 and this should be useful to highlight anticipated positive relationships between all variables.

The HH spot price is determined at the Louisiana central location in the USA. It represents a standardised quality of gas in methane content and a standardised quantity. The price is expressed in US dollars per billion cubic metres British Thermal Units (BTU). These prices are also quoted on the New York Metals Exchange (NYMEX) and on Datastream.

The spot OPEC oil price is an oil basket price for OPEC member production in US dollars per barrel. These data are obtainable from the United States Department of Energy, Energy Information Administration and are also published in and extracted from Datastream.

The world stock market price index values are reported by Datastream who base their series on stock exchange price indices that commonly use a representative sample of publicly listed companies in each country, with the stock prices reflected in the index converted into US Dollars at current exchange rates. The companies included in the index generally represent around 85% of the volumes traded in the country stock exchanges. The index is regularly re-assessed (at least every quarter) to identify changes in the trading volumes of each represented company share. Then a new portfolio is compiled, with new weightings based on the changes in trading activity in each share.

The companies represented in the index commonly represent around 70% of the total stock market capitalisation of listed companies in each market. The indices generally reflect information that has been updated daily for the morning following the reference day and may be regarded as an important global economic indicator, reflective in part of global supply and demand conditions (and therefore in part reflective of global supply and demand for manufactures requirements of energy).

Coal prices represent the ARA global insight price index values at US dollars per metric ton and are published in the Datastream database. The quote region for the coal is Europe and the delivery condition applies for the markets in Amsterdam, Rotterdam and Antwerp. The index is of three coal prices applicable for Colombian, Australian and South African coal.

6. Preliminary results

Table 1 contains the results of the ADF unit root tests applied to level series (prices) and first differences (price changes). The first differences and the errors of the regression of first differences are shown to be stationary at the 1% significance level.

7. Main findings

The analysis moves now to an investigation of optimally lagged data in the application of the Equation 4 in order to apply VAR based tests of cointegration and causality. This is on the basis that the unit root tests indicate that the level series are integrated and non-stationary (See Table 1).

The VAR stability condition check indicates that no root lies outside the unit circle (See Table 2) and that the VAR is stable. Note that in all Tables that follow, PG, PO, PC and PS are level series prices for gas, oil, coal and stocks respectively (Price changes are denoted (DPG), D(PO), D(PC) and D(PS) respectively).

The VAR lag order test results, contained in Table 3, indicate that the optimal lag is four days according to the Log Likelihood, Final Prediction Error, and Akaike Information Criteria and three days according to the Schwarz and Hannan-Quinn information criteria.

Whilst unit root tests indicate integrated non-stationary processes, the summarised Johansen cointegration tests (See Table 4) indicate that there are no cointegrating relations in the specified model, tested at a 5% level of significance.

Table 5 contains the results of the VAR based Granger causality tests on prices. Significance levels of 10% are selected.

When gas prices are treated endogenously as specified, the only statistically significant Granger causality runs from the oil price to the gas price variable (That is, oil price variable's exogeneity is significant at the 5% level) on a 3 to 4 day lag. When all variables are considered together, causality is significant at the 10% level. Within the same system, when oil prices are considered endogenously, causality runs from stock prices to oil prices and from coal prices to oil prices (both significant at the 10% level). In this latter model gas price exogeneity is not significant. However, when all variables are considered together, joint causality running to oil prices is significant at the 10% level.

Table 6 shows the results of pairwise Granger causality tests that confirm the VAR based test on an optimal lag of 2 days according to the significance and size of the F statistic.

Price changes are now considered. Table 12 shows that in an unlagged model of gas price changes regressed on oil price, coal price and stock price changes, the only statistically significant relationship is with oil price changes (at the 1% level of significance). Serial correlation according to DW statistics is not a problem, but the explanatory power of the model is not strong. Nevertheless, it is deemed that this constitutes sufficient evidence to pursue exogeneity issues for the lagged prices and price change models.

Table 7 shows that the lag order for price changes is three days according to the log likelihood ratio, the final prediction error and the Akaike information criterion and two days according to the Schwarz and Hannan-Quinn criteria.

Table 8 shows the results of the VAR based Granger causality tests in price changes.

The table confirms that the significant influence on gas price changes is the oil price change and that the significant influences on the oil price changes are the price changes of coal and stocks at the 1% and 5% levels of significance respectively. It is also significant that the price change variables considered collectively are significant causal influences (at the 1% level) of the oil price change variable.

Table 9 shows the results of pairwise Granger causality testing for price changes.

Table 9 confirms these relationships established from results in Table 8, when considered on a pairwise basis with a lag of 2 days, based on the size and significance of the F statistic (Oil prices changes Granger cause gas prices at a 5% level of significance, and coal and stock prices changes Granger cause oil price changes at a 1% and 10% level of significance respectively).

However, further evidence was sought for dynamic relationships within the gas price changes model. Table 10 contains the results of variance decomposition analysis. The results confirm Granger causality analysis. Gas price changes are treated endogenously in a model interacting with stocks, oil and coal price changes. In variance decomposition, the responses by each of the exogenously treated variables may be observed after a one standard deviation shock is imparted to the endogenous variable.

Table 10 shows that within two days of the shock, the gas price change variable explains 99.66% of its own variance and 99.24% of its own variance after equilibrium is achieved within 12 days. The oil price change variable is the greater exogenous force in the model explaining 0.28% of the variance of the gas price change variable within 2 days increasing to 0.50% of that variance when equilibrium is achieved. The exogeneity of the stock price index change variable increases from 0.002% after 2 days to 0.16% when equilibrium is achieved.

The coal price change variable increases its exogeneity from 0.08% to 0.09% over the same period. These results lend support to the oil price change being a significant determinant of the gas price change commencing after a 2 day lag.

Table 11 results show the variance decomposition of price changes when the oil price change variable is treated endogenously. When the oil price variable is shocked it explains 96.09% of its own variance after 2 days and its endogeneity reduces to 95.58% after equilibrium is achieved in 9 days. Over the same period the exogeneity of the gas price variable reduces very slightly but the exogeneity of the stocks price variable increases from 1.14% to 1.17% and that of the coal price variable increases from 0.38% to 0.77%. The stocks and coal price variables increase exogeneity while the gas price variable slightly reduces its exogeneity.

Again supporting evidence is provided that the stock price and then the coal price variables are the major influences on the oil price variable in the respecified model. The gas price variable is not a causal influence on the oil price variable.

8. Conclusion

This study provides evidence of Granger causality in an expanded, optimally lagged, multivariate, party to party bargaining model for daily (spot) gas prices and price changes, when the gas prices are proxied by the spot HH gas price. The interacting variables include daily oil prices (proxied by OPEC prices), global stocks prices (proxied by global stock price index values) and global coal price index values (proxied by the ARA Global Insight Coal Index values).

The findings lend support to previous studies of causal relationships in Western energy markets. For example, in USA oil and gas by Serletis and Rangle-Ruiz (2004); in USA oil, gas and coal by Bachmeier (2006); in USA oil, gas and coal by Stern (2007); in global coal markets by Warell, (2006) and in the UK and Continental gas market by Asche (2006). The global gas market could in future, when markets become larger and more efficient, use these variables to assist in partially forecasting future spot gas prices, but also to assist in spot price bargaining in an expansion of the party to party bargaining model (For example, in support of Okogu, 2002).

A VAR based Granger causality test as well as pairwise Granger causality tests were undertaken on prices and price changes along with variance decomposition tests in price changes. In the short-term, the daily oil price and price change is the dominant exogenous force on gas prices and price changes on a lag of two to three days. Evidence is produced that within the specified model, coal price changes and then stock price changes are significant causal influences over oil price changes.

Literature (Simpson, 2006) suggests that cartel or strongly cooperating behaviour among OPEC producers is a significant driver of oil prices but, it is possible, in that pricing environment, that other pricing factors are also taken into account by OPEC members? It is possible that increased global stock market price changes represent a signal to the OPEC cartel that global industry can afford to pay more for oil generated industrial power and oil prices are increased accordingly.

It may also be that increased coal prices are also a signal to the OPEC cartel that oil prices need to be increased for the cartel to maintain its current leading market share of the global energy market. In other words, apart from arguments that relate to OPEC's cartel behaviour and market power, the economic indicators of the world stock market and the world coal market may be important determinants of OPEC pricing decisions, which in turn may be significant causal influences of the global gas market. Similarly, gas producers would want to at least maintain their market share of industrial power based on pricing in the oil market. It may be rational behaviour that prices in any energy market will adjust proportionally and positively to prices in other energy markets.

The USA gas market is by far the largest, most regionally integrated and efficient in the world. The HH is the benchmark for that regional spot gas market. The evidence lends support to the feasibility of the HH as an interim global gas pricing benchmark in the absence of an alternative model, because the specified exogenous variables represented by global price indicators, play a combined role in the determination of the HH gas prices quoted (that is, with oil prices as the most important). The results show that oil and coal, as the most prolific of replacement energy sources for industrial power, may have a significant role to play in the future in spot gas pricing when the market becomes larger, more efficient and more integrated.

Future research in this area will be to improve the model by examining a volume weighted average of all regional gas spot prices. The new model will also examine the contribution of political risk to the combined spot gas price on the

basis that international credit risk, specifically its political risk components, are likely to play a role in any commodity's export pricing. Assessing a country's willingness to pay would seem to be a fundamental factor in pricing.

References

- Asche, F. (2000). European Market Integration for Gas? Volume Flexibility and Political Risk. *CESifo Working Paper*, Number 358, November.
- Asche, F. (2006). The UK Market for Natural Gas, Oil and Electricity: Are the Prices Decoupled? *The Energy Journal*, Vol. 27, No. 2, 27-40.
- Bachmeier, L. J. (2006). Testing for Market Integration Crude Oil, Coal and Natural Gas. *The Energy Journal*, Vol. 27, No. 2, 55-72.
- Brito, D. L., and Hartley, P. R. (2007). Expectations and the Evolving World Gas Market. *The Energy Journal*, Vol. 28, No. 1, 1-24.
- Dickey, D. A., and Fuller, W. A. (1981). Likelihood Ratio Statistics for Autoregressive Time Series within a Unit Root. *Econometrica*, Vol. 49, 1022-1057.
- Durbin, J., and Watson, G. S. (1971). Testing for Serial Correlation in Least Squares Regression-111. *Biometrika*, Vol. 58, 1-42.
- Eng, G. (2006). A Formula for LNG Pricing. *Ministry for Economic Development New Zealand*. [Online] Available: http://www.med.govt.nz/Templates/multipageDocumentTOC___23939.aspx
- EViews 4. (2001). *EViews 4 User's Guide*. Quantitative Micro Software, LLC.
- Granger, C. W. J. (1988). Some Recent Developments in a Concept of Causality. *Journal of Econometrics*, Vol. 39, 199-211.
- Johansen, S. (1988). Statistical Analysis of Cointegration Vectors. *Journal of Economic Dynamics and Control*, Vol. 12, 231-254.
- Juris, A. (2005). The Development of Markets in the UK Gas Industry. *Policy Research Working Paper*, World Bank, Private Sector Department, Washington, DC.
- Krichene, N. (2005). A Simultaneous Equations Model for World Crude Oil and Natural Gas Markets. *IMF Working Paper Series*, No. 32.
- Mazighi, Ahmed El Hashemite. (2005). Henry Hub and National Balancing Point Prices: What Will be the International Gas Price Reference. *Organisation of Petroleum Exporting Countries, Research Paper*, September.
- Muth, J. F. (1961). Rational Expectations and the Theory of Price Movements. *Econometrica*, Vol. 29, pp. 315-335.
- Okogu, B. E. (2002). Issues in Global Natural Gas: A Primer and Analysis. *IMF Working Paper*, No. 40, February.
- Pindyck, R. S. (1999). The Long-Run Evolution of Energy Prices. *The Energy Journal*, Vol. 20, No. 2, pp1-27.
- Serletis, A., and Rangle-Ruiz, R. (2004). Testing for Common Features in North American Energy Markets. *Energy Economics*, Vol. 26, 401-414.
- Simpson, J. L. (2006). Oil Price Hikes: Blame Cartel Behaviour or Political Risk. *Working Paper, Social Science Research Network*.
- Stern, J. (2007). Is There a Rationale for the Continuing Link to Oil Product Prices in Continental European Long-Term Gas Contracts?. *Oxford Institute for Energy Studies*, April, NG 19.
- Warell, L. (2006). Market Integration in the International Coal Industry: A Cointegration Approach. *The Energy Journal*, Vol. 27, No. 1, 99-118.

Notes

Note 1. As prices are quoted Cost Insurance Freight (CIF) the regression lines might be closer together if prices were negotiated Free on Board (fob) leaving the importers to negotiate separately the transaction costs for insurance and freight.

Note 2. If lower political risk is taken into account (comparing New Zealand with for example China) it would, however be logical for New Zealand to negotiate lower political risk premia.

Table 1. Unit Root Tests: ADF test statistics

Variable	Level series (Daily price)	First differenced series (Daily changes in price)
Gas	-3.1001**	-22.0914*
Stocks	0.8893***	-29.1173*
Oil	-1.2219***	-28.6330*
Coal	-1.0716***	-36.1812*
Residual	-3.3753**	-22.2892*

Note: * Significance levels are at 1%. ** Significance levels are at 5%. *** Not significant and the ADF test statistic critical values are as follows:

1% level	-3.435165
5% level	-2.863554
10% level	-2.567892

Table 2. VAR stability condition check (prices)

Roots of Characteristic Polynomial
 Endogenous variables: PG PO PC PS
 Exogenous variables: C
 Lag specification: 1 2

Root	Modulus
0.999989	0.999989
0.998273	0.998273
0.988582	0.988582
0.970825	0.970825
0.221232 - 0.047471i	0.226267
0.221232 + 0.047471i	0.226267
0.007210	0.007210
-0.003067	0.003067

No root lies outside the unit circle.
 VAR satisfies the stability condition.

Table 3. VAR lag order selection criteria (prices)

Endogenous variables: PG PO PC PS

Exogenous variables: C

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-20838.86	NA	1.07e+09	32.14011	32.15605	32.14609
1	-7876.610	25824.57	2.282389	12.17673	12.25642	12.20663
2	-7805.604	141.0263	2.096781	12.09191	12.23535	12.14574
3	-7732.802	144.1452	1.920940	12.00432	12.21151*	12.08207*
4	-7715.135	34.86975*	1.916017*	12.00175*	12.27269	12.10342
5	-7709.096	11.88376	1.945682	12.01711	12.35180	12.14270
6	-7705.264	7.515444	1.982551	12.03587	12.43432	12.18539
7	-7700.349	9.610780	2.016751	12.05297	12.51516	12.22640
8	-7695.370	9.704045	2.051348	12.06996	12.59591	12.26732

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

Table 4. Johansen cointegration test summary (prices)

Series: PG PO PC PS

Lags interval: 1 to 2

Selected (0.05

level*) Number

of

Cointegrating

Relations by

Model

Data Trend:	None	None	Linear	Linear	Quadratic
Test Type	No Intercept	Intercept	Intercept	Intercept	Intercept
	No Trend	No Trend	No Trend	Trend	Trend
Trace	0	0	0	0	0
Max-Eigenvalue	0	0	0	0	0

*Critical values based on MacKinnon-Haug-Michelis (1999)

Information

Criteria by
Rank and
Model

Data Trend:	None	None	Linear	Linear	Quadratic
Rank or No. of CEs	No Intercept No Trend	Intercept No Trend	Intercept No Trend	Intercept Trend	Intercept Trend
Log Likelihood by Rank (rows) and Model (columns)					
0	-7772.269	-7772.269	-7768.523	-7768.523	-7766.037
1	-7766.651	-7764.534	-7761.393	-7758.382	-7756.533
2	-7761.677	-7759.549	-7756.822	-7751.390	-7749.810
3	-7758.707	-7756.231	-7755.340	-7746.839	-7746.612
4	-7758.190	-7755.340	-7755.340	-7745.701	-7745.701
Akaike Information Criteria by Rank (rows) and Model (columns)					
0	11.98812	11.98812	11.98852	11.98852	11.99084
1	11.99178	11.99007	11.98985	11.98676*	11.98853
2	11.99643	11.99623	11.99512	11.98985	11.99049
3	12.00416	12.00496	12.00513	11.99668	11.99787
4	12.01565	12.01742	12.01742	12.00876	12.00876
Schwarz Criteria by Rank (rows) and Model (columns)					
0	12.11523*	12.11523*	12.13151	12.13151	12.14972
1	12.15067	12.15292	12.16462	12.16551	12.17919
2	12.18709	12.19484	12.20167	12.20434	12.21293
3	12.22660	12.23932	12.24346	12.24692	12.25208
4	12.26987	12.28752	12.28752	12.29475	12.29475

Table 5. Granger causality test (VAR based, in prices)

VAR Granger Causality/Block Exogeneity Wald Tests

Dependent variable: **PG**

Excluded	Chi-sq	df	Prob.
PO	7.068890	2	0.0292
PC	1.667972	2	0.4343
PS	2.010098	2	0.3660
All	11.47862	6	0.0747

Dependent variable: **PO**

Excluded	Chi-sq	df	Prob.
PG	0.311380	2	0.8558
PC	4.978898	2	0.0830
PS	5.725313	2	0.0571
All	12.11456	6	0.0595

Dependent variable: PC

Excluded	Chi-sq	df	Prob.
PG	0.019562	2	0.9903
PO	0.503505	2	0.7774
PS	0.823582	2	0.6625
All	0.994749	6	0.9858

Dependent variable: PS

Excluded	Chi-sq	df	Prob.
PG	1.104973	2	0.5755
PO	3.754883	2	0.1530
PC	4.004171	2	0.1351
All	9.694740	6	0.1381

Table 6. Pairwise Granger causality (Non-VAR based in prices)

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Probability
PO does not Granger Cause PG	1303	4.20437	0.01513
PG does not Granger Cause PO		0.17999	0.83530
PC does not Granger Cause PG	1303	1.56082	0.21036
PG does not Granger Cause PC		0.07413	0.92856
PS does not Granger Cause PG	1303	1.45179	0.23453
PG does not Granger Cause PS		1.10279	0.33226
PC does not Granger Cause PO	1303	2.97429	0.05143
PO does not Granger Cause PC		0.05256	0.94880
PS does not Granger Cause PO	1303	3.42900	0.03271
PO does not Granger Cause PS		2.15093	0.11679
PS does not Granger Cause PC	1303	0.12424	0.88318
PC does not Granger Cause PS		1.97402	0.13931

Table 7. Lag order selection criteria for price changes

VAR Lag Order Selection Criteria

Endogenous variables: D(PG) D(PO) D(PC) D(PS)

Exogenous variables: C

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-7888.856	NA	2.290627	12.18033	12.19628	12.18632
1	-7817.823	141.5191	2.104120	12.09541	12.17514	12.12533
2	-7741.426	151.7325	1.916869	12.00220	12.14573*	12.05606*
3	-7724.809	32.90068*	1.915048*	12.00125*	12.20857	12.07905
4	-7718.200	13.04499	1.943010	12.01574	12.28685	12.11748
5	-7715.375	5.558732	1.982929	12.03607	12.37097	12.16175
6	-7710.327	9.901299	2.016743	12.05297	12.45166	12.20259
7	-7704.968	10.47837	2.050156	12.06939	12.53188	12.24295
8	-7698.897	11.83140	2.081843	12.08472	12.61099	12.28221

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

Table 8. Granger causality in price changes (VAR based)

VAR Granger Causality/Block Exogeneity Wald Tests

Dependent variable: **D(PG)**

Excluded	Chi-sq	df	Prob.
D(PO)	6.785234	2	0.0336
D(PC)	1.313697	2	0.5185
D(PS)	1.309473	2	0.5196
All	10.06994	6	0.1217

Dependent variable: **D(PO)**

Excluded	Chi-sq	df	Prob.
D(PG)	0.370212	2	0.8310
D(PC)	13.55676	2	0.0011
D(PS)	6.645913	2	0.0360
All	19.10713	6	0.0040

Dependent variable: D(PC)

Excluded	Chi-sq	df	Prob.
D(PG)	1.746110	2	0.4177
D(PO)	1.587273	2	0.4522
D(PS)	0.600896	2	0.7405
All	3.440733	6	0.7518

Dependent variable: D(PS)

Excluded	Chi-sq	df	Prob.
D(PG)	0.305059	2	0.8585
D(PO)	4.289463	2	0.1171
D(PC)	3.105275	2	0.2117
All	7.810248	6	0.2523

Table 9. Pairwise Granger causality tests (price changes)

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Probability
D(PO) does not Granger Cause D(PG)	1302	3.68391	0.02539
D(PG) does not Granger Cause D(PO)		0.12883	0.87914
D(PC) does not Granger Cause D(PG)	1302	0.68270	0.50543
D(PG) does not Granger Cause D(PC)		0.66973	0.51202
D(PS) does not Granger Cause D(PG)	1302	0.99034	0.37173
D(PG) does not Granger Cause D(PS)		0.39063	0.67671
D(PC) does not Granger Cause D(PO)	1302	6.04455	0.00244
D(PO) does not Granger Cause D(PC)		0.55286	0.57544
D(PS) does not Granger Cause D(PO)	1302	2.61544	0.07352
D(PO) does not Granger Cause D(PS)		2.19502	0.11177
D(PS) does not Granger Cause D(PC)	1302	0.25901	0.77186
D(PC) does not Granger Cause D(PS)		1.36887	0.25476

Table 10. Variance decomposition of gas price changes

Period	S.E.	D(G)	D(S)	D(O)	D(C)
1	0.430590	100.0000	0.000000	0.000000	0.000000
2	0.431329	99.65751	0.001853	0.258775	0.081862
3	0.451032	99.30365	0.140158	0.470603	0.085594
4	0.451075	99.28692	0.144074	0.477711	0.091298
5	0.452895	99.24936	0.160526	0.499487	0.090628
6	0.452900	99.24784	0.161322	0.499905	0.090930
7	0.453072	99.24443	0.162731	0.501972	0.090870
8	0.453073	99.24430	0.162801	0.502007	0.090896
9	0.453089	99.24398	0.162935	0.502194	0.090890
10	0.453089	99.24397	0.162941	0.502198	0.090892
11	0.453090	99.24394	0.162953	0.502215	0.090892
12	0.453090	99.24394	0.162954	0.502216	0.090892

Table 11. Variance decomposition of oil price changes

Period	S.E.	D(PG)	D(PS)	D(PO)	D(PC)
1	0.610956	2.270968	0.731364	96.99767	0.000000
2	0.631140	2.381741	1.141503	96.09234	0.384416
3	0.632592	2.376743	1.224201	95.65584	0.743213
4	0.632855	2.375428	1.263282	95.58638	0.774906
5	0.632872	2.376771	1.266210	95.58123	0.775787
6	0.632873	2.376763	1.266226	95.58123	0.775785
7	0.632874	2.376909	1.266226	95.58108	0.775784
8	0.632874	2.376910	1.266226	95.58108	0.775785
9	0.632874	2.376922	1.266226	95.58107	0.775785

Table 12. The unlagged relationship between gas and oil price changes

Dependent Variable: D(PG)

Method: Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(PO)	0.106595	0.019692	5.413178	0.0000
D(PC)	-0.009414	0.015702	-0.599551	0.5489
D(PS)	4.82E-06	0.001829	0.002634	0.9979
R-squared	0.022326	Mean dependent var		0.002113
Adjusted R-squared	0.020824	S.D. dependent var		0.451381
S.E. of regression	0.446657	Akaike info criterion		1.228246
Sum squared resid	259.5526	Schwarz criterion		1.240148
Log likelihood	-797.8164	Durbin-Watson stat		2.014485

Note: D (PG) denotes gas price changes, D (PO) denotes oil price changes, and D (PC) and D (PS) denote coal and stock price index changes.

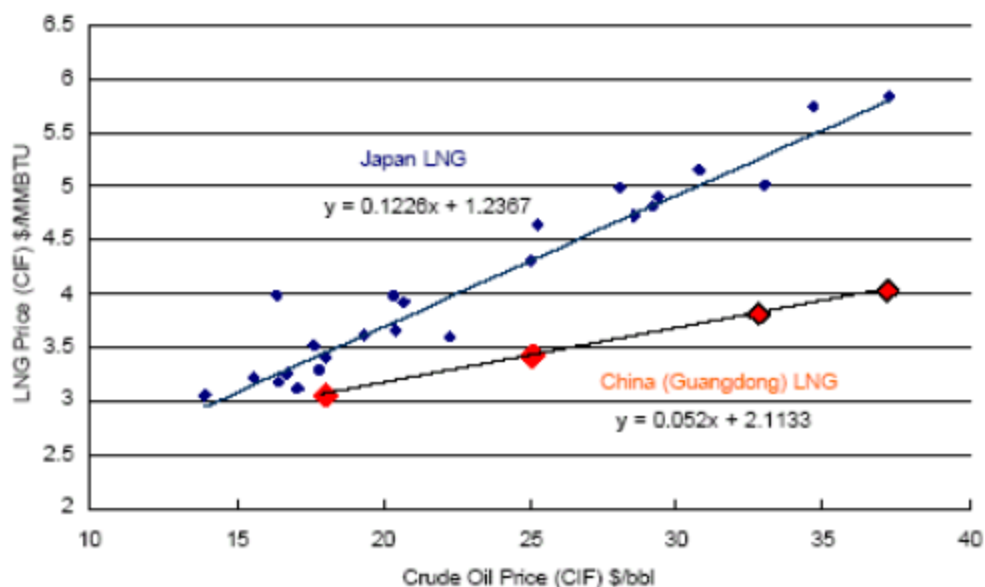


Figure 1. LNG Pricing Formulae – fitted

Source: Asia-Pacific Energy Research Centre, 2005. China data estimated by PetroStrategies; Japan LNG prices from IEA Energy Prices and Taxes, JCC prices from EDMC, Institute of Energy Economics of Japan. (Cited and produced in Eng, 2006).

Note: The equations in the above graph are estimates as stated where y is the gas price and x is the JCC oil price. Note the lower value of the Chinese coefficient for oil. The acronym BTU denotes a measure of gas quality in British Thermal Units.



Philosophical Interpretation on E. A. Nida's Definition of Translation

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Abstract

Since 1980s, E.A. Nida's translation equivalence theory experiences a history of rising, booming and declining in China, and his translation theories and concepts are also widely quoted and discussed. However, the focuses are mainly on what is equivalence, the realization of equivalence, what levels of equivalence, the applicability of his theory and mistranslation of his translation in China, and no one discusses his definition of translation from the perspective of philosophy. As the definition of translation will represent the basis and starting point for translation studies, analysing on it will facilitate our understanding to the theory. In this article, based on the tendency of absolutization to his definition, it is to analyse the presupposition and shortage of the definition by philosophical analysis and to urge following researchers to adopt a dialectic and critical attitude to western translation theories, which may advance Chinese translation studies in future.

Keywords: Nida, Definition of translation, Philosophical perspective, Absolutization

E. A. Nida is an important translation theorist in the history of translation studies all over the world. In 1980s, E. A. Nida's equivalence theory goes through the process of rising, prospering and falling, which of course is closely related to the new development of international translation studies. Nida's translation theory plays an essential role in the development of Chinese translation studies, just as Liu Shicong says "whether you agree or not, you can not deny Nida and his translation theory", so "his translation theory has becomes one part of Chinese translation studies"(from Ma Huijuan). But when his translation theory occurs in China early, many researchers accept it or praise it blindly. Only hot discussions on his translation theory and its shortcomings do make his theory clear for Chinese researchers, which also advance the development of Chinese translation studies. In these discussions, some are related to his definition of translation such as Fang Yuehua's, Li Tianxin's, Tan Zaixi's and Ma Huijuan's, but their concerning is mainly on the Chinese translation of his definition, while no one criticises the definition itself, not even from the perspective of philosophy, which deserves our thinking. Therefore, in the article it is to interpret Nida's definition of translation from philosophy in order to make us clearly understand the definition and further his translation theory based on this.

1. Nida's Definition of Translation

Definition of translation represents the perspective and attitude to translation theory, which is the basis and starting point of relative translation studies, so deep understanding to definition will deepen the recognition to the theory. According to Nida and Taber in *The Theory and Practice of Translation*, "Translating consists in reproducing in the receptor language the closest natural equivalent of the source-language message, first in terms of meaning and secondly in terms of style". There are Chinese translations from Tan Zaixi, Li Tianxin and Ma Huijuan, and Ma thinks "equivalence is the closest possible approximation". Whatever the translation is, the original definition is the same, so the discussion seems a little confusing and useless. In fact the problem is the two words "closest" and "equivalent", which lead to absolutization and indeterminacy of meaning from perspective of philosophy.

2. Philosophical Thinking to Closest Equivalent

2.1 Absolutization of the Definition

From its origin and early usage, "for the last 150 years English *equivalence* has been used as a technical term in various exact sciences to denote a number of scientific phenomena or processes", "in mathematics and formal logic it indicates a relationship of absolute symmetry and equality involving guaranteed reversibility"(Snell-Hornby), therefore, *equivalent/equivalence* with the meaning of similar significance is progressive for the development of translation theory

from word-to-word translation to modern translation theory. Whereas, closest is the superlative degree form of the adjective “close”, which means “most...”. From the perspective of philosophy, the superlative degree form represents the extreme point, the last end, which is the problem of absolutization, namely philosophical absolutism. In philosophy, absolutism “as a kind of metaphysical standpoint presupposes that there is some absolute reality, that is, Being independent of human’s cognition, as the being is objective, out of control of time and space but human’s cognition is limited by time and space” (Note 1). Once “closest” is added before the equivalent, it presupposes there exists an absolute correct final translation, that is an ultimate goal, which is beyond the difference of translators, time and space. However, who can find out the final translation? And if it is realized, is retranslation possible? Who can identify which one is the absolute correct translation? Is there only one absolute final translation beyond the translators, time, space and context?

2.2 Subjectivity of Evaluation

If there is an absolute correct translation, then we have to face the question that “who can identify the absolute correct translation?” An expert or an ordinary reader? Are their opinions the same? No one can answer this question, because “no poem is intended for the reader, no picture for the beholder, no symphony for the listener” (from L.Venuti, 2000), and no text is for a fixed reader. Therefore, the evaluation of “closest natural equivalent” is subjective and personal. As every estimator is characteristic of his/her personal class, any valuation is characteristic of relative class feature. Readers decide to accept or reject translations, and different types of reader will require different types of translation. (A. Lefevere) A closest natural translation for highly qualified intellectuals may not be the closest natural one for common people or ordinary citizens.

2.3 Contextualization of Translation

“There is nothing outside context”, and “meaning – not only the meaning of what we speak, read and write, but any meaning at all – is a contextual event; meaning cannot be extracted from, and cannot exist before or outside of a specific context.” (from K.Davis) Temporal spirit concerns that any social activity is closely related to its historical context, therefore in discussing these activities, it is necessary to consider it historically and dialectically. From this view, any translation and translating activities are connected with their temporal feature, and any criticism without considering it is a scientific and unreasonable. “Rather like any human activity, it (translation) takes place in a specific social and historical context that informs and structures it, just as it informs and structures other creative process. In the process of translation, the operation becomes doubly complicated since, by definition, two languages and thus two cultures and two societies are involved.” (from L.Venuti,1992) For Lin Shu’s translation activities, the modern researchers had better to discuss his translated text and activities from his temporal context and its historical significance, which can help us understand his translation activities. This is historical context, and there is also another textual context. In practice, any translation has to be analysed on different contexts, which is a view from pragmatics, as different contexts will produce “closest natural equivalents” at different levels in different degrees, because “we have come to recognise that different types of texts require different translation strategies” (S. Bassnett and A. Lefevere). This is contextual equivalence.

2.4 Different Equivalent at Different Levels

Early translation studies focuses on the correspondence of word for word, gradually the focus widens to macro perspective. Western translation theory can be dated from word-for-word of Rome era to later sense-for-sense, then equivalent at phrase level, at sentence level, at paragraph level and even at textual level. While Nida’s definition does not limit the level of equivalence, so it maybe at any level. From temporal development of translation studies of his time, the study on translation unit is concerned to phrase and sentence based on linguistic analysis, therefore Nida’s definition of translation is to some degree on the “closest natural equivalent” at phrase and sentence levels. In *In Other Words: A Coursebook on Translation*, Mona Baker analyses equivalence at word level and above word level, including grammatical equivalence, textual equivalence and pragmatic equivalence, which means equivalence is hierarchical, from this aspect, Nida’s equivalence theory is questionable. Of course, it is necessary to consider the fact that Nida’s equivalence theory is put forward as early as 1960s, while others are far later from his theory.

2.5 Possibility of Re-translation

If there exists a closest natural equivalent, any translator is to seek for it to his/her best, and if he/she does realize the goal, the translated text is the ultimate translation, which never changes, that is, there is no possibility to re-translation. However any translator is characteristic of his/her personal subjectivity, and “when any sense-maker understands the objective content of an object, in fact it is never avoidable that his/her personal subjective factors are permeated into it” (Huang Zhending).

From Derrida’s view, meaning is “what is *disseminated* in the transform process of a serie of signifiers, but not a stable signified-signifier relation. Language is not an unambiguous and well-defined structure between groups of signifieds and signifiers, but seems like a disordered game in which all kinds of factors interact and interchange, which leads to

forever “*différance*” of signified-signifier chain.”(Liu Hui) The “*différance*” between signified and signifier relationship subverts conventional response relation between them, and leads to the indeterminacy of word meaning. The indeterminacy of word meaning “further proves that text is not an unambiguous and self-evident close unit any more, but a ceaseless move process and activity”(Lu Yang). As a result, the indeterminacy of meaning leads to the different interpretations and translations for different translators, and “the process of reading and interpreting a text is a limitless dynamic extension of signs, but not a static and stable structure”(Lu Yang). The meaning and the idea of the original is in the process of unlimited “*différance*”, and translators cannot identify a norm text with exact meaning and stable translation model in translating. Therefore in the process of translation, translators will, according to his/her understanding and personal cultural background knowledge, creatively interpret and understand original text, so “the *traces* of translators and other translated texts all will *différance* in a translator’s text”(Liu Hui). A text “lives only if it lives *on* [*sur-vit*], and it lives *on* only if it is *at once* translatable *and* untranslatable [...] Totally translatable, it disappears as a text, as writing, as a body of language [*langue*]. Totally untranslatable, even within what is believed to be one language, it dies immediately.” (from K. Davis) Any text at specific temporal and spatial contexts will produce different texts by different translators, even the same translator will develop a new text in a new temporal or spatial context. Therefore, re-translation is possible, and inevitable, which proves that there does not exist a final translation --- “the closest natural equivalence”.

3. Philosophical Interpretation for the Definition

From Nida’s definition, translation is to reproduce the closest natural meaning of source language information in target language firstly, while its stylistic features of both source language and target language are of second importance. From philosophy, the definition presupposes the determinacy of meaning and ultimate translation, and it also emphasizes the centrality of original text and the priority of meaning, which neglects the creativity and dynamicity of translation. “Translation is not only the intellectual, creative process by which a text written in a given language is transferred into another.” (from L. Venuti, 1992)

From Nida’s definition, as translation is to “reproduce” the closest natural corresponding information and meaning, for translators it is to find the presupposed meaning and express it out. Meanwhile as discussed in 2.1 “closest” also presupposes that there exists an ultimate information or meaning, any translator is to discover the absolute correct translation. This is the first presupposition. However, “meaning is a plural and contingent relation, not an unchanging unified essence, and therefore a translation cannot be judged according to mathematics-based concepts of semantic equivalence or one-to-one correspondence.”(L. Venuti, 2004) If the presupposition is denied as above-discussion, the definition and even the theory is vulnerable to attack. In the definition, it is required to “reproduce” the information of source language, so the information starting point of the definition is the source text, the source meaning, and its translation is dependent on its source text, just as the by-product of original text, which is widely criticised by post-modernism translation studies. “First in terms of meaning” emphasizes on the priority of meaning, but the definition to some degree has a relative applicability to some text, however for poems and ads text, the priority of meaning has to face challenge. From this point, the definition is mainly suitable to “content-focused text”, but not to “form-focused text”(K. Reiss). “Reproduce” in English means “to produce again or to produce a counterpart, an image or a copy”, without the meaning of creativity, therefore the definition also neglects translators’ subjectivity and creativity, especially for literature translation activities. So the “closest natural equivalence” eliminates the possibility of advancement, progress and further perfection. In addition, the definition neglects such factors as culture and communication in the process of translation as well, by nature “translation is multilingual and also interdisciplinary, encompassing languages, linguistics, communication studies, philosophy and a range of types of cultural studies.”(J. Munday) Cultural equivalence is not semantic equivalence, and the function or purpose of translation is not equivalent to its semantic meaning from the functional translation studies such as *skopostherie*.

According to the analysis, Nida’s definition of translation has played an important role in history of Chinese translation studies, and also widely used before, especially in 1980s and 1990s, but its shortage is also obvious. Many translation researchers in China just apply it in the translation activities without considering its applicability. Therefore, it is important to adopt dialectical attitude to Nida’s definition of translation and to his translation theory based on the definition, especially for modern researchers, at the same time as translation studies researchers, it is necessary to realize the philosophical basis and shortcomings of all kinds of western translation theories, and accordingly develop and improve Chinese translation studies.

4. Conclusion

Based on the analysis of absolutization of Nida’s definition of translation, it is concluded that this definition has many problems from the perspective of philosophy, first the possibility of final exact translation, then the presupposition of meaning determinacy and presupposition of existence of final meaning for texts. From the aspect of linguistics, the definition is of paramount importance under the frame of linguistics, and Nida and other successors also make some supplement and discussion, but for translation studies researchers, it is necessary to limit this definition in the field of

translation studies from the perspective of linguistics. Concerning the temporal spirit of Nida's definition and the development of western translation studies, it is undoubted that Nida's definition of translation and his translation theory have played an important role in the early development of Chinese translation studies, and his definition and translation theory also is progressive at that time. From the progress of Nida's translation theory expanding in China since early 1980s, in the early period of western theory into China, Chinese researchers often are vulnerable to envy western theories blindly and neglect the contradiction behind these theories, therefore in this article it is to advance the dialectical thinking, acceptance and application to western theories by philosophical thinking, which could be useful to future study for Chinese translation researchers.

References

- Baker, M. (2000). *In Other Words: A Coursebook on Translation*. Beijing: Foreign Language Teaching and Research Press.
- Bassnett, S. and A. Lefevere. (2001). *Constructing Cultures: Essays on Literary Translation*. Shanghai: Shanghai Foreign Language Education Press, p4.
- Davis, K. (2004). *Deconstruction and Translation*. Shanghai: Shanghai Foreign Language Education Press, p9, 22.
- Fang, Yuehua. (2006). Misinterpretation and Correction of Nida's Definition of Translating. *Journal of Nantong University*, Vol. 22, 94-96.
- Huang, Zhending. (2007). *Linguistic and Philosophical Basis of Translation Studies*. Shanghai: Shanghai Jiao Tong University Press, p142.
- Lefevere, A. (2004). *Translation/History/Culture – A Sourcebook*. Shanghai: Shanghai Foreign Language Education Press, p9-10.
- Li, Tianxin. (2004). My Opinion on Nida's Translation Definition. *Foreign Languages Research*, Vol. 88, 64-67.
- Liu, Hui. (2008). A Discussion on Deconstruction from the Perspective of the Diversity of the Translation Version of Literary Works. *Journal of Suzhou College of Education*, Vol. 25, 68-70.
- Lu, Yang. (2008). *Specters of Derrida*. Wuhan: Wuhan University Press, p186.
- Ma, Huijuan. (2003). *A Study on Nida's Translation Theory*. Beijing: Foreign Language Teaching and Research Press, p91
- Munday, J. (2001). *Introducing Translation Studies: Theories and Applications*. London and New York: Routledge, p1.
- Nida, E. A. and C. R. Taber. (2004). *The Theory and Practice of Translation*. Shanghai: Shanghai Foreign Language Education Press, p12.
- Reiss, K. (2004). *Translation Criticism: The Potentials & Limitations*. Translated by Erroll F. Rhodes. Shanghai: Shanghai Foreign Language Education Press, p24-38.
- Snell-Hornby, M. (2004). *Translation Studies: An Integrated Approach*. Shanghai: Shanghai Foreign Language Education Press, p17.
- Tan, Zaixi. (1998). *A New Book on Nida's Translation Studies*. Beijing: China Translation & Publishing Corporation.
- Venuti, L. (1992). *Rethinking Translation: Discourse, Subjectivity, Ideology*. London and New York: Routledge, p139.
- Venuti, L. (2000). *The Translation Studies Reader*. New York and London: Routledge, p75.
- Venuti, L. (2004). *The Translator's Invisibility—A History of Translation*. Shanghai: Shanghai Foreign Language Education Press, p18.

Note 1.

<http://www.chinese-thought.org/zwsx/005691.htm>



Governance-Owner Structure and Earnings Management: Evidence from Korea

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Abstract

This paper examines how the threat of expropriation by the ultimate owners affects earnings management and auditing quality. The empirical results indicate that the ultimate owners of Korean firms typically exert control in considerable excess of their cash flow rights. This study also shows the threat of expropriation by ultimate owners has a positive effect on earnings management as measured by discretionary accruals estimates, while auditing quality and the percent of institutional investor shareholding are not significantly related to CEOs' opportunistic behavior.

Keywords: Cash flow rights, Earnings management, Governance-owner structure, Ultimate owner, Voting control rights

1. Introduction

The accounting field focuses primarily on earnings management. The Arthur Anderson, Enron, and WorldCom scandals heighten public awareness of the seriousness of earnings management. In South Korea, many firms have typically managed earnings manipulation ever since economic crisis of 1997.

Many studies present new angles regarding earnings management. For example, Dechow and Skinner (2000) discuss the differences between academic and regulator/practitioner perceptions of earnings management and emphasize the importance of exploring the causes of earnings management in capital markets. Further, remarkable research by Dechow, Sloan and Sweeney (1996) identifies the corporate governance structures most commonly associated with earnings manipulations.

Examining Asian firms, Fan and Wong (2001) find that highly concentrated share ownership and a large separation between cash flow rights and voting rights (common scenarios in East Asia) weaken the credibility of reported earnings among outside investors and hence lower the informativeness of the accounting earnings. Examining the United States, Bushman and Smith (2003) also note that financial accounting information, particularly which related to governance mechanisms, can affect investment, productivity, and value additions.

Since Korea's economic crisis of 1997, the problem of corporate governance has concerned researchers and regulators. For example, Jee and Chang (2000) find that ultimate owners have greater voting rights than cash flow rights and that the separation of cash flow rights and voting control rights significantly correlates with earnings manipulation. Based on this context, the paper examines the relationship between corporate governance and earnings management.

The paper explores how corporate ownership structures within the Korean economy affect the credibility of reported accounting information. Specifically, the paper reports a study on how the ownership structure affects earnings management as related to cash flow and voting rights. The study also analyzes how corporate governance controls, such as external auditing systems and institutional investors, relate to the opportunistic behaviors of ultimate owners.

The paper reports three sets of findings. First, larger voting rights give the ultimate owners more power to expropriate control over their companies, while smaller cash flow rights reduce the share of losses ultimate owners incur from the extraction of wealth. Second, the threat of expropriation by ultimate owners has a positive effect on earnings management as measured by discretionary accruals estimates.

Third, no significant relationship exists between monitoring variables (e.g., auditing quality and the percent of institutional investor shareholding) and earnings management. The empirical evidence of this study provides reasons for the decline of Korean financial information credibility.

The rest of the paper is organized as follows. The next section discusses the separation of governance and ownership and the relationship between earnings management and auditing quality/institutional investor ratios. Section three presents hypotheses. Section four provides empirical results regarding whether the ownership structure affects earnings management and on the relationship between the control system and the opportunistic behaviors of ultimate owners. Section five provides a summary and conclusions.

2. Literature Review

2.1 Separation of governance and ownership and the relationship with opportunistic behavior

Typically, a single family dominates the control of listed Korean firms. Ultimate control is achieved through such devices as stock pyramids and cross-share holdings. This ownership structure often creates a separation between the cash flow rights and voting rights of the ultimate owners. This section discusses the separation of governance and ownership and the relationship of such separation to opportunistic behavior.

La Porta, Lopez-de-silanes, Shleifer, and Vishny (1999) illustrate that controlling shareholders exert power in excess of their cash flow rights through the use of pyramids and management participation. Jensen and Meckling (1976) document the ways in which ultimate owners achieve absolute power in a corporation. When managers hold little equity and shareholders are too dispersed to take action against an opportunistic behavior, insiders can use corporate resources for personal benefit.

In East Asia, Fan and Wong (2001) show that highly concentrated share ownership and a large separation between cash flow rights and voting rights weaken the credibility of reported earnings to outside investors and hence lowers the informativeness of the accounted earnings. Further, Fan and Wong (2001) find less informativeness in the accounted earnings of firms in which a family hold large voting rights and in which there is a large voting-control divergence. However, family controls *per se* do not lower earnings informativeness. In a subsequent study, Fan and Wong (2001) empirically illustrate that complex pyramid structures and cross-holdings in East Asian firms create more voting control rights than cash flows rights.

By testing entrenchment and private information effects, some studies also propose that controlling shareholders have more power than controlling rights. Morck, Shleifer, and Vishny (1988), McConnell and Servaes (1990), and Farinha (2002), Xie (2007) test the entrenchment effect and document the excess power of controlling shareholders. With the entrenchment effect, at low levels of managerial ownership, increases in ownership lead to a greater focus on value-maximizing objectives. This goal alignment through managerial ownership is referred to as the “convergence-of-interests effect.” At intermediate levels of managerial ownership, however, managers may have sufficient voting power to indulge in their personal preferences instead of focusing on value-maximizing activities (Kissan and Richardson, 2004).

The private information effect refers to controlling shareholders managing inside information so as to avoid interventions by other shareholders (Jensen and Meckling, 1992; Christie, Joye, and Watts, 1993). Pyramidal structures and cross-share holdings can maximize the entrenchment and private information effects (Morck et al., 1998).

2.2 The relationship between opportunistic behavior and auditing quality/institutional investor ratios

As noted above, separate governance can affect opportunistic behavior. This section examines variables that can affect opportunistic behavior. Many studies find that corporate leaders often choose external auditing to decrease agency costs (Watts and Zimmerman, 1983) and that external auditor can restrict the opportunistic behavior of CEOs (Becker, Defond, Jiambalvo, and Subramayam, 1998; Francies, Meydew, and Sparks, 1999; Teodora, 2008).

Auditing quality can alter the level of control external auditing exerts on the opportunistic behavior of CEOs (Becker et al., 1998). Auditing quality is a parameter of the auditor's independence to discover significant financial statement errors (DeAngelo, 1981). A high level of auditing quality leads to a high possibility of detecting financial statement fraud and errors and a greater possibility of transparent reporting (Nah and Choi, 2001). Overall, these studies show that auditing quality significantly influences the opportunistic behaviors of CEOs.

Many papers identify institutional investors as a control factor (e.g., Black, 1992) within the principal-agent arrangement between owners and managers. While some studies report that institutional investors have a positive role, others report negative roles.

Longstreth (1991) shows that institutional investors allow voluntarily monitoring because they hold many stocks and have incentives for controlling the corporation. Therefore, institutional investors decrease the possibility of opportunistic behavior by CEOs (Schleifer and Vishny, 1986; Black, 1992).

By contrast, Graves (1988) proposes that institutional investors have no control incentives because they are transient investors with little time to spare. Coffee (1991) also reports that institutional investors have little incentive to control CEO behavior because these investors are mainly focused on customer interests.

3. Hypothesis

3.1 Hypotheses

To examine the divergence of cash flow, voting control rights, and earnings manipulation, two opposing hypotheses need to be tested. The first is the “convergence-of-interests” hypothesis. According to this hypothesis, the voting rights of the CEO increase when conflicts of interest between the CEO and external shareholders decrease. Greater voting rights for the CEO will create lower agency costs, and the value of firm equity will increase (Klassen, 1997; Jensen, 1986).

The second hypothesis is the entrenchment hypothesis. According to this hypothesis, if the CEO’s voting rights increase because conflicts of interest between the CEO and external minority shareholders decrease, the agency cost will also decrease. However, because other costs (excluding the agency cost) will increase, the total value of the firm will decrease (Shleifer and Vishny, 1997; La Porta et al., 1998, 1999, 2000; Classens, Djankov, Fan, and Lang, 1999, 2000).

Demsetz (1983), Fama and Jensen (1983), and Warfield et al. (1995) also stress that before analyzing the relationship between owner shareholding and earnings information, a correct understanding of the firm’s governance-owner structure is needed. These studies report that if pyramidal structures and cross-holdings protect a CEO, he or she probably uses firm resources for personal uses; moreover if conflicts of interest between CEOs and external minority shareholders occur, the possibility of CEOs’ opportunistic behaviors increases.

Hypothesis 1: The separation between cash flow rights and voting rights affects earnings manipulation.

The paper tests the relationship between auditing quality/institutional investors and opportunistic behaviors of CEOs. External auditing can be used to monitor agency costs between firms and stakeholders. External auditing also plays a role in restricting opportunistic behaviors by CEOs. Francis et al. (1999) document the relationship between increases in discretionary accruals in earnings factors and the high possibility of earnings management. Therefore, controlling shareholders should prefer high-quality external auditing.

Various environmental factors influence the degree to which an external audit restricts a firm’s discretionary accounting choice (Becker et al., 1998; Francis et al., 1999). Therefore, although a CEO may have incentives toward opportunistic behavior, the level of external auditing quality can change the scope and degree of this behavior.

Likewise, Schleifer and Vishny (1986) and Pound (1988) note that institutional investors also play a role in controlling and restricting the behaviors of CEOs. The active-monitoring hypothesis and on the idea that institutional investors have incentives to actively monitor firms inform these studies.

Hypothesis 2: The auditing quality and percentage of shares held by institutional investors affect earnings manipulation.

3.2 Sample data

Sample firms are selected from the Korea Investor Service-Financial Analysis System (KIS-FAS) and Korea Internet Survey and Research Institute (KISRI) databases. Included firms have sufficient ownership, stock returns, earnings, and other financial data for empirical analysis. Firms involved with banking or which have issues with their administration are excluded. Table 1 describes the data sources.

Insert Table 1 about here

3.3 Regression model

The following model tests whether or not the divergence between cash flow and voting control affects earnings management:

$$DA_{it} = \alpha_0 + \alpha_1 CV_{it} + \alpha_2 SIZE_{it} + \alpha_3 LEV_{it} + \alpha_4 CFO_{it} + \mu_{it} \quad (1)$$

Where, for sample firm i and year t ,

DA_{it} = the absolute value of discretionary accruals divided by total assets for year t ,

CV_{it} = cash flow-voting control divergence, defined as the ratio of cash flow rights to voting rights of the largest ultimate owner,

$SIZE_{it}$ = the market value of equity at the beginning of year t ,

LEV_{it} = the total liability divided by total assets at the beginning of year t ,

CFO_{it} = the operating cash flow divided by total assets at the beginning of year t , and

μ_{it} = the error term at year t .

In this model, DA serves as a proxy for earnings management, and total assets were added to control for size. $SIZE$ proxy for the political costs and is expected to negatively relate to DA (Han and Wang, 1998). LEV is the leverage variable and is expected to have a positive relationship with DA because firms with high LEV s tend to have greater earnings management (McNichols and Wilson, 1988). The CFO is included to test whether the operating cash flow affects earnings management.

A second model is also used to test whether auditing quality (AQ) and the percentage of shares held by institutional investors (IIH), which can control the opportunistic behaviors of CEOs, affect earnings management. Generally, big institutional investors benefit from control of the firm in that they have access to firm information and incentives for controlling CEO activities (Shleifer and Vishny, 1997).

$$DA_{it} = \alpha_0 + \alpha_1 CV_{it} + \alpha_2 SIZE_{it} + \alpha_3 LEV_{it} + \alpha_4 CFO_{it} + \alpha_5 AQ_{it} + \alpha_6 IIH_{it} + \mu_{it} \quad (2)$$

Where, for sample firm i and year t ,

DA_{it} = the absolute value of discretionary accruals divided by total assets for year t ,

CV_{it} = the ratio of cash flow rights to voting rights of the largest ultimate owner,

$SIZE_{it}$ = the market value of equity at the beginning of year t ,

LEV_{it} = the total liability divided by the total assets at the beginning of year t ,

CFO_{it} = the operating cash flow divided by the total assets at the beginning of year t ,

AQ_{it} = the auditing quality (if audited by a Big Six auditing firm, $AQ = 1$, otherwise $AQ = 0$), and

IIH_{it} = the percentage of shares held by institutional investors at year t .

3.4 Variable selection

3.4.1 Divergence of cash flow rights and voting control rights

The methods used by La Porta et al. (1999) and Fan and Wong (2001) are used to examine the divergence between cash flow rights and voting control rights. Cash flow rights are defined as the percentage of shares or cash flow held by a firm owner; voting control rights are defined as the real control level of firms and reflect pyramidal structures and cross-holdings. The procedure used to identify the ultimate owner is similar to methods by Classens et al. (2000), La Porta et al. (1999), and Fan and Wong (2001). An ultimate owner is defined as a shareholder with at least 5% of the voting rights in a firm. A firm without an ultimate owner was classified as "widely held."

3.4.2 Discretionary accruals

The paper uses the cross sectional modified Jones' model (1991) (Dechow et al., 1995) to estimate discretionary accruals as a proxy for earnings management for the years 1998 through 2001. Because the discretionary portion of accruals is the difference between total accruals and the estimate of the non-discretionary accruals, the paper calculates total accruals and non-discretionary accruals to estimate discretionary accruals.

Following modified Jones' model (1991), the residuals (ε_{jt}) from model (3) are discretionary accruals of the paper. Since the study does not focus on the direction but magnitude of earnings management, the paper uses the absolute value of discretionary accruals.

$$TA_{jt}/A_{jt-1} = \alpha[1/A_{jt-1}] + \beta_1[(\Delta REV_{jt} - \Delta REC_{jt})/A_{jt-1}] + \beta_2[(PPE_{jt})/A_{jt-1}] + \varepsilon_{jt} \quad (3)$$

$$DA_{jt} = TA_{jt}/A_{jt-1} - \{\alpha[1/A_{jt-1}] + \beta_1[(\Delta REV_{jt} - \Delta REC_{jt})/A_{jt-1}] + \beta_2[(PPE_{jt})/A_{jt-1}]\} \quad (4)$$

Where, for the sample firm i and year t ,

TA_{jt} = total accruals for year t ,

ΔREV_{jt} = changes in total sales for year t ,

ΔREC_{jt} = changes in receivables for year t ,

PPE_{jt} = equipment assets for year t , and

A_{jt-1} = total assets at the beginning of year t .

DA_{jt} = discretionary accruals for year t .

3.4.3 Auditing quality

The appointment of quality auditors assures investors of the accuracy and truthfulness of financial disclosures. In this study, to test whether external auditors perform a controlling role, “name brand” (*i.e.*, “Big Five”) auditors are used as proxies for auditing quality. The so-called Big Five auditors have international reputations and are generally perceived as more independent than local auditors.

3.4.4 Other variables

SIZE: the market value of equity is used to control for any size effects

LEV: commonly, high leverage firms tend toward opportunistic behaviors (Dhaliwal et al., 1999). In this study *LEV* is defined as the total liability divided by the total assets.

IIH: the ratios of shares held by banking, securities, and insurance companies

4. Empirical Tests Results

4.1 Statistical results

The descriptive statistics in Table 2 illustrate the separation between the cash flow rights and voting rights of ultimate owners. For the study firms, the mean cash flow rights and voting control rights are 24% and 30%, respectively. These values contrast those of the non-Korean firms (*e.g.*, U.S. firms) examined in most studies.

CV indicates the degree of divergence between cash flow and voting control rights and is, by definition, between zero and one. If CV = 1, a firm is widely held. As the value approaches zero, the divergence becomes larger. Basic CV ratio statistics are shown in Table 2. The mean CV is 0.79, indicating a divergence between cash flow rights and voting control rights of 24%, with cash flow rights lower than voting control rights. This relation suggests the existence of a possible agency problem that separates cash flow and voting control rights. Within these results, the *chaebol* (large conglomerates) has the lowest degree of divergence, suggesting that most Korean *chaebol* groups have more voting control rights than cash flow rights.

Insert Table 2 about here

Table 3 lists the descriptive statistics for other variables. The mean and median values for net income were 0.03 and 0.02, respectively, suggesting that operating performance decreases after Korea’s economic crisis of 1997. However, the mean and median values for cash flow are 0.06 and 0.06, respectively. Other variables have the following mean and median values, respectively: total accruals (TA): 0.08 and 0.06; discretionary accruals (DA) 0.06 and 0.02; and firm size (SIZE) 2,018 billion won and 921 billion won. The mean LEV is 57.8%.

Insert Table 3 about here

4.2 Correlation analysis of main variables

Table 4 presents the results of the correlation analysis. All the correlation coefficients are significantly different from zero at the 1% level. TA and DA are positively correlated at the 1% level, while CV, LEV, and CFO are negatively correlated at the 1% level. These correlations suggest that the divergence of cash flow and voting control rights is related to DA.

As expected, DA and CV are negatively correlated at the 1% significance level, suggesting that compounded cash flow–voting control divergence is significantly related to DA. As illustrated in Table 4, SIZE is positively related to DA, but not significantly, corresponding to results by Watts and Zimmerman (1986). LEV is negatively related to DA at the 1% level of significance, in contrast to results by DeFond and Jiambalvo (1994). CFO and DA are negatively correlated at the 1% level of significance, in agreement with findings of Dechow et al. (1995). AQ and CV are negatively correlated at the 1% level and positively related to SIZE at the 1% level. These results suggest that if the cash flow–voting control divergence is high, firms require the high quality control provided by Big Six auditors.

Insert Table 4 about here

4.3 Analysis of hypothesis 1

4.3.1 Simple regression analysis

Before testing hypothesis 1, the paper uses simple linear regression to provide preliminary evidence for the relation between cash flow–voting control divergence and earnings management. For this test, the paper divides the sample firms into high, middle, and low groups based on the DDA size and then performed cross-tabulation.

The paper divides the CV group according to the size of the cash flow–voting control divergence. The divergence is in the order CV1 < CV2 < CV3. The paper also divides the DA group according to the size of discretionary accruals, such that DDA1 < DDA2 < DDA3.

As reported in Table 5, the relationship between CV and DA is Z shaped, suggesting that if the cash flow–voting control divergence is small, discretionary accruals are also small.

Insert Table 5 about here

4.3.2 Multiple regression analysis

Table 6 shows CV, LEV, and CFO relate negatively to DA at the 1% significance levels, respectively. In contrast to previous studies, LEV is negatively related to DA. However, the significant negative relation of DA and CFO replicates and supports the results of Dechow et al. (1995) and Becker et al. (1998).

Table 6 also shows that CV, a proxy of the cash flow–voting control divergence, is negatively related to DA, a proxy for the possibility of earnings management. This suggests as the cash flow–voting control divergence increases, incentives for earnings management grow.

Insert Table 6 about here

4.4 Analysis of hypothesis 2

4.4.1 Simple regression analysis

The paper divides samples into Big Six and non-Big Six groups to test the mean difference between discretionary accruals and cash flows. As reported in Table 7, the mean level for the Big Six group is larger than that of the non-Big Six group at the 5% significance level. This suggests that in firms audited by non-Big Six auditors, earnings management is greater than in firms audited by Big Six groups.

Insert Table 7 about here

For further evidence, the paper performs additional tests of the mean difference in cash flow. As shown in Table 7, the cash flows of firms audited by non-Big Six auditors are smaller than those of firms audited by the Big Six auditors. This also indicates that earnings management of non-Big Six audited firms is greater than that for Big Six audited firms.

In Table 8, the paper divides samples into four groups based on the CV size to test the mean DA differences. Group CV1 has the smallest cash flow–voting control divergence of the four CV groups, while CV4 has the greatest divergence. The DA difference between Big Six and non-Big Six groups is significant at the 1% levels in CV4 and CV2. Given the high possibility of opportunistic behavior, these results suggest that auditing quality controls this behavior by the ultimate owner.

Insert Table 8 about here

4.4.2 Multiple regression analysis

Multiple regression analysis includes the percentage of shareholding by institutional investors to test whether this factor has a monitoring effect on opportunistic behavior by CEOs. The results show no significant relation between the percentage of shares held by institutional investors and earnings management. Monitoring variables (*e.g.*, auditing quality and the percent of institutional investor shareholding) are not linearly related to opportunistic behavior (*i.e.*, earnings management) by CEOs.

Insert Table 9 about here

4.5 Checks of robustness

To test for any possible bias in our results, the study reruns the above regression after changing the independent variable DA to TA (total accruals). As shown in Table 10, the sign of the coefficients for CV remain the same, but the values increased compared with those estimated at the 1% level of significance.

Insert Table 10 about here

For further diagnostic checks, the paper also includes the percentage of shareholding by the ultimate owner (OWN) in the multiple regression analysis. As shown in Table 11, the signs of the coefficients for CV remain the same at the same level of significance. Specifically, OWN, positively related to DA. This suggests that increasing the percentage of shares held by a CEO magnifies the effect on earnings management.

Insert Table 11 about here

Next, to test the information effect, the analyses include performing separate regression analyses including CONT and CASH as independent variables. The test results show that CONT is positively related to DA at the 1% level of significance, suggesting that as the degree of control held by the ultimate owner increases, earnings management also increases.

Insert Table 12 about here

5. Summary and Conclusions

Korea's economic crisis of 1997 has spurred the re-examination of corporate financial reporting. Poor accounting information and associated high capital costs pose a significant threat to the competitiveness of Korean firms. Despite efforts to improve corporate transparency by imposing new accounting and disclosure rules, perceptions of corporate financial reporting credibility remain low. It is important to understand why the credibility of Korean financial information is so low.

The underlying assumption of this study is that highly concentrated share ownership and a large separation between cash flow rights and voting rights, which are common in South Korea, weaken the credibility of reported earnings to outside investors, and hence lower the informativeness of accounting earnings. Earnings credibility is weakened because minority shareholders expect that the ownership structure gives controlling owners both the ability and incentive to manipulate earnings for either outright expropriation or for other opportunistic and often hidden activities.

The results of the study indicate that the ultimate owners of Korean firms typically exert control in considerable excess of their cash flow rights. This practice is due in part to the pyramidal structure of firms and because the ultimate owners often manage the firms they control. Accordingly, the incentives for ultimate owners to expropriate control from minority shareholders increases as the separation of cash flow rights and voting control rights of the ultimate owners' increases. Larger voting rights give the ultimate owners more power to expropriate control over their companies, while smaller cash flow rights reduce the share of losses ultimate owners incur from the extraction of wealth.

Since our definition of ownership relies on both cash flow and voting control rights, the cash flow rights that support control by ultimate owners must be further identified. Firm-specific information on pyramidal structures and cross-holdings can be used to distinguish between cash flow and voting rights. This study also shows that the threat of expropriation by ultimate owners has a positive effect on earnings management as measured by discretionary accruals estimates.

The important contribution of the study is in showing reasons for the deterioration of credibility in Korean financial markets. And the empirical results of the paper reinforce the adoption of a new policy model of corporate governance-owner structure to promote the credibility of accounting information in Korean financial markets.

References

- Becker, C., M. DeFond, J. Jambalvo, K. Subramanyam. (1998). The Effect of Audit Quality on Earnings Management. *Contemporary Accounting Research*, 15, 1-24.
- Black, B. S. (1992). Agent Watching Agents: The Promise of Institutional Investor Voice. *UCLA Law Review*, 39, 811-893.
- Bushman, R. M., A. J. Smith. (2003). Transparency, Financial Accounting Information, and Corporate Governance. *FRBNY Economic Policy Review*, 9, 65-87.
- Christie, A., M. Joye, R. Watts. (1993). Decentralization of the Firm: Theory and Evidence. *Working Paper*, University of Rochester.
- Claessens, S., S. Djankov, J. Fan, L. H. P. Lang. (1999). Expropriation of Minority Shareholders: Evidence from East Asia. Policy Research *Working Paper*, The World Bank.
- Claessens, S., S. Djankov, L. H. P. Lang. (2000). The Separation of Ownership and Control in East Asian Corporation. *Journal of Financial Economics*, 58, 81-112.
- Coffee, J. C., Jr. (1991). Liquidity versus Control: The Institutional Investor as Corporate Monitor. *Columbia Law Review*, 91, 1277-1386.
- DeAngelo, L. (1981). Auditor Size and Audit Quality. *Journal of Accounting and Economics*, 3, 183-199.
- Dechow, P. M. & D. J. Skinner. (2000). Earnings Management: Reconciling the Views of Academics, Practitioners, and Regulators. *Accounting Horizons*, 14, 235-250.
- Dechow, P. M., R. G. Sloan & A. P. Sweeny. (1995). Detecting Earnings Management. *The Accounting Review*, 70, 193-225.
- Dechow, P. M., R. G. Sloan, A. P. Sweeny. (1996). Causes and Consequences of Earnings Manipulation: An Analysis of Firms subject to Enforcement Actions by SEC. *Contemporary Accounting Research*, 13(1), 1-36.
- Defond, M., J. Jambalvo. (1994). Debt Covenant Violation and Manipulation of Accruals. *Journal of Accounting and Economics*, 17, 145-176.
- Demsetz, H. (1983). The Structure of Ownership and the Theory of the Firms. *Journal of Law and Economics*, 26, 375-390.

- Demsetz, H., K. Lehn. (1985). The Structure of Ownership: Causes and Consequences. *Journal of Political Economy*, 93, 1157-1177.
- Dhaliwal, D. S., K. J. Lee, N. L. Fargher. (1991). The Association between Unexpected Earnings and Abnormal Security Returns in the Presence of Financial Leverage. *Contemporary Accounting Research*, 8, 20-41.
- Fama, E., M. Jensen. (1983). Separation of Ownership and Control. *Journal of Law and Economy*, 26, 301-326.
- Fan, J. P. H., T. J. Wong. (2001). Corporate Ownership Structure and the Informativeness of Accounting Earnings in East Asia. EFA0053; AFA 2001 New Orleans.
- Farinha, J. (2002). Dividend Policy, Corporate Governance and Managerial Entrenchment Hypothesis: An Empirical Analysis. EFMA 2002 London Meeting.
- Francis, J., E. Maydew, H. Sparks. (1999). The Role of Big 6 Auditors in the Credible Reporting of Accruals. *Auditing: A Journal of Practice and Theory*, 18, 17-34.
- Graves, S. B. (1988). Institutional Ownership and Corporate R&D in the Computer Industry. *Academy of Management Journal*, 31, 417-428.
- Han, J., S. Wang. (1998). Political Costs and Earnings Management of Oil Companies During the 1990 Persian Gulf Crisis. *The Accounting Review*, 73(1), 103-117.
- Jee, C., H. S. Chang. (2000). An Empirical Study on the Relation between Ownership Structure and Firm Value. *Working Paper*, Seoul National University [Printed in Korean]
- Jensen, M. C., W. H. Meckling. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3, 305-360.
- Jensen, M. C., W. H. Meckling. (1992). *Specific and General Knowledge, and Organizational Structure*, in: Lars Werin and Hans Wijkander, eds. *Contract Economics* Chapter 9, 251-274.
- Jones, J. J. (1991). Earnings Management during Import Relief Investigations. *Journal of Accounting Research*, 29, 193-228.
- Joseph, Kissan, Vernon J. Richardson. (2004). Free Cash Flow, Agency Cost, and Affordability Method of Advertising Budgeting. *Journal of Marketing*, 66(1), 94-107.
- Klassen, K. J. (1997). The Impact of Inside Ownership Concentration on the Trade-off between Financial and Tax Reporting. *The Accounting Review*, 72, 455-474.
- La Porta, R., Lopez-de-Silanes, A. Shleifer, R. Vishny. (1998). Law and Finance. *Journal of Political Economy*, 106, 1113-1155.
- La Porta, R., Lopez-de-Silanes, A. Shleifer, R. Vishny. (1999). Corporate Ownership around the World. *Journal of Finance*, 54, 471-518.
- La Porta, R., Lopez-de-Silanes, A. Shleifer, R. Vishny. (2000). Investor Protection and Corporate Governance. *Journal of Financial Economics*, 58, 3-27.
- Longstreth, B. (1991). Reflections on the State of Corporate Governance. *Brooklyn Law Review*, 57, 113-127.
- McConnell, J.J., H. Servaes. (1995). Equity Ownership and the two Faces of Debt. *Journal of Financial Economics*, 39(1), 131-157.
- McNichols, M., P. Wilson. (1988). Evidence of Earnings Management from the Provision for Bad Debts. *Journal of Accounting Research*, 26, 1-31.
- Morck, R., A. Shleifer, R. W. Vishny. (1988). Management Ownership and Market Valuation: An Empirical Analysis. *Journal of Financial Economics*, 20, 293-315.
- Nah, C-K., K-H. Choe. (2001). Qualified Audit Opinion for the Earnings Management and Audit Quality. *Korean Accounting Review*, 26(3), 51-89.
- Pound, J. (1988). Proxy Contest and the Efficiency of Shareholder Oversight. *Journal of Financial Economics*, 20, 237-265.
- Shleifer, A. and R. Vishny. (1997). A Survey of Corporate Governance. *Journal of Finance*, 52, 737-783.
- Teodora Paligorova. (2008). The Effect of the Sarbanes-Oxley Act on CEO Pay for Luck. *Working Paper*, Bank of Canada.
- Warfield, T., J. J. Wild, K. Wild. (1995). Managerial Ownership Accounting Choices, and Informativeness of Earnings. *Journal of Accounting and Economics*, 20, 61-91.

Watts, R. and J. Zimmerman. (1983). Agency Problem, Auditing and the Theory of the Firm: Some Evidence. *Journal of Law and Economics*, 26(3), 613-633.

Watts, R. and J. Zimmerman. (1986). *Positive Accounting Theory* Englewood Cliffs, N.J.: Prentice-Hall.

XIE Jun. (2007). Incentive and Entrenchment Effects of Large Shareholdings: Evidence from Chinese Public Corporation. *Journal of Modern Accounting and Auditing*, 3(2), 31-35.

Table 1. Selection of sample firms

Sum of Listed companies at the end of 1998-2001	1,432
Minus (-) :	
Firms that do not settle their accounts in December ¹⁾	(180)
Financial banking businesses	(121)
Issues in administration	(154)
Firms with missing financial data	(55)
Firms lacking data necessary for calculating the percentage of ultimate owner shareholdings	(145)
Other firms (extreme data ²⁾ , capital encroachment firms, loss firms)	(19)
Total sample firms	758

1) Including firms that change the settling day

2) Extreme value of data ($\geq |\text{mean} \pm 3\sigma|$)

Table 2. Voting rights (V), cash flow rights (C), and the cash flow–voting control divergence (CV)

(Sample firms: 758)

		Mean	Standard deviation	Minimum	Q1	Median	Q3	Maximum
V	1998	0.29	0.13	0.06	0.19	0.31	0.40	0.60
	1999	0.29	0.13	0.07	0.19	0.31	0.40	0.60
	2000	0.31	0.14	0.06	0.18	0.32	0.43	0.60
	2001	0.33	0.15	0.06	0.18	0.35	0.44	0.61
	Total	0.30	0.14	0.06	0.18	0.32	0.41	0.60
C	1998	0.24	0.15	0.03	0.16	0.26	0.35	0.51
	1999	0.25	0.16	0.05	0.17	0.27	0.37	0.55
	2000	0.24	0.15	0.04	0.15	0.25	0.37	0.50
	2001	0.24	0.15	0.04	0.15	0.24	0.37	0.50
	Total	0.24	0.19	0.03	0.16	0.25	0.37	0.55
CV	1998	0.83	0.25	0.45	0.78	0.85	0.90	1.00
	1999	0.87	0.20	0.48	0.80	0.88	0.90	1.00
	2000	0.77	0.21	0.41	0.69	0.84	0.87	1.00
	2001	0.73	0.24	0.42	0.60	0.80	0.85	1.00
	Total	0.79	0.24	0.43	0.67	0.81	0.85	1.00

*CV: the ratio of cash flow rights to voting rights for the largest ultimate owner

Table 3. Descriptive statistics of the input variables

	Mean	Median	Standard deviation	Minimum	Maximum
NI	0.03	0.02	0.21	-0.23	0.30
CFO	0.06	0.06	0.13	-0.31	0.39
TA	0.08	0.06	0.10	0.00	0.47
DA	0.06	0.02	0.08	0.00	0.32
IIH	0.22	0.18	0.21	0.00	0.43
SIZE	2018	921	4101	178	40167
LEV	0.58	0.50	0.27	0.11	1.00
AQ	0.68	0.61	0.25	0.00	1.00

NI: earnings/total assets at the beginning of year t ; CFO: operating cash flow/total assets at the beginning of year t ; TA: total accruals at year t /total assets at the beginning of year t ; DA: the absolute value of discretionary accruals/total assets at the beginning of year t ; SIZE: market value of equity at the end of year t ; LEV: total liability/total assets at the beginning of year t ; IIH: percentage of shares held by institutional investors at year t (shares held by banking, securities, and insurance companies), AQ : Big Six accounting firm = 1, non-Big Six = 0

Table 4. Correlation analysis of the variables

	TA	DA	CV	SIZE	LEV	CFO	AQ	IIH
TA	1.000 p=0.000							
DA	0.914 (0.000)	1.00						
CV	-0.313 (0.000)	-0.215 (0.000)	1.00					
SIZE	-0.034 (0.912)	0.011 (0.356)	-0.091 (0.005)	1.00				
LEV	-0.451 (0.000)	-0.217 (0.000)	-0.0611 (0.811)	-0.012 (0.468)	1.00			
CFO	-0.299 (0.000)	-0.283 (0.000)	0.099 (0.005)	0.098 (0.007)	-0.263 (0.000)	1.00		
AQ	0.016 (0.125)	-0.035 (0.211)	-0.167 (0.000)	0.241 (0.000)	0.001 (0.912)	0.014 (0.644)	1.00	
IIH	0.014 (0.541)	0.044 (0.573)	-0.267 (0.000)	0.157 (0.000)	0.111 (0.000)	0.003 (0.821)	0.023 (0.634)	1.00

Pearson's coefficient of correlation, two-sided test

CV: the ratio of cash flow rights to voting rights of the largest ultimate owner (cash flow right/voting right); The other abbreviations are as in Table 3.

Table 5. Cross analysis of CV and DDA

	CV 1 ¹⁾	CV 2	CV 3	Chi-square (<i>p</i> -value)
DDA 1 ²⁾	108 ³⁾	83	59	21.65 (.000)
DDA 2	68	106	59	
DDA 3	73	91	111	

1) CV = the ratio of cash flow rights to voting rights of the largest ultimate owner (cash flow right/voting right)

2) DDA = |total accruals at year t – total accruals at year $t-1$ |/|total accruals at year $t-1$ |

3) The number of firms

Table 6. Regression analysis of DA (earnings management) and CV (cash flow–voting divergence)

$$DA_{it} = \alpha_0 + \alpha_1 CV_{it} + \alpha_2 SIZE_{it} + \alpha_3 LEV_{it} + \alpha_4 CFO_{it} + \mu_{it}$$

	Expected sign	Statistics	
		Coefficient (α)	<i>t</i> -value
Constant	?	0.147***	3.34
CV	–	-0.099***	-4.12
SIZE	–	0.002	0.99
LEV	+	-0.106***	-3.21
CFO	–	-0.414***	-7.41

1) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

2) N: number of sample firms

3) The abbreviations are as in Tables 3 and 4.

4) Since the maximum value of VIF was 6.7, the multicollinearity between the independent variables was not significant.

Table 7. Difference analysis for total accruals according to auditing quality

Group variable ¹⁾	Big Six audited ³⁾			Non-Big Six audited			Difference test ²⁾	
	Mean	Median	Standard deviation	Mean	Median	Standard deviation	<i>t</i> -value	Z-value
DA	0.000	-0.004	0.211	0.003	0.000	0.209	2.11 *	1.98 *
CFO	0.078	0.067	0.312	0.037	0.025	0.258	4.34 ***	3.99 ***

1) The abbreviations are as in Table 3.

2) The result of I-statistics and the Wilcoxon rank test, */** : $p < 0.05/0.01$

3) Audited by a Korean auditing firm associated with a Big Six auditing firm

Table 8. Difference test of CV (cash flow–voting divergence) and DA (discretionary accruals) according to auditing quality

	CV1	CV2	CV3	CV4
	Non-Big Six : Big Six	Non-Big Six : Big Six	Non-Big Six : Big Six	Non-Big Six : Big Six
Mean difference	0.0089	0.0309	0.0211	0.0516
Median difference	0.0081	0.0284	0.0201	0.0511
<i>t</i> -test	0.521	0.005	0.109	0.000
W-test	0.678	0.005	0.088	0.000

CV = the ratio of the largest ultimate owner's cash flow rights to voting rights (cash flow right/voting right). CV1= the top 25% of the CV ratio distribution (the group in which the cash flow–voting divergence was the lowest); CV4 = the lowest 25% of the CV ratio distribution (the group in which the cash flow–voting divergence was highest). W-test refers to the Wilcoxon rank test. Big Six indicates auditing by a Korean auditing firm allied with a Big Six auditing firm; Non-Big Six indicates auditing by a Korean auditing firm not associated with a Big Six auditing firm.

Table 9. Regression analysis of the auditing quality, percentage of shareholding by institutional investors, and earnings management

$$DA_{it} = \alpha_0 + \alpha_1 CV_{it} + \alpha_2 SIZE_{it} + \alpha_3 LEV_{it} + \alpha_4 CFO_{it} + \alpha_5 AQ_{it} + \alpha_6 IHH_{it} + \mu_{it}$$

Variable	Expected sign	Statistics	
		Coefficient (α)	<i>t</i> -value
CV	–	-0.168***	-7.12
SIZE	–	0.001	0.87
LEV	+	-0.089***	-2.99
CFO	–	-0.687**	-3.64
AQ	–	-0.001	-0.05
IHH	–	-0.004	-0.12

1) ** $p < 0.05$, *** $p < 0.01$

2) N: number of sample firms

3) The abbreviations are as in Tables 3 and 4.

4) Since the maximum value of VIF was 8.0, the multicollinearity between the independent variables was not significant.

Table 10. Regression analysis including total accruals

$$TA_{it} = \alpha_0 + \alpha_1 CV_{it} + \alpha_2 SIZE_{it} + \alpha_3 LEV_{it} + \alpha_4 CFO_{it} + \mu_{it}$$

	Expected sign	Statistics	
		Coefficient (α)	t-value
Constant	?	0.167***	5.43
CV	—	-0.351***	-5.12
SIZE	—	0.013	0.416
LEV	+	-0.109***	-4.12
CFO	—	-0.699***	-5.78
Adj. R sq.		0.285	
F		17.34	
N		758	

1) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

2) N: number of sample firms

3) The abbreviations are as in Tables 3 and 4.

4) Since the maximum value of VIF was 6.1, the multicollinearity between the independent variables was not significant.

Table 11. Regression analysis including CV

$$DA_{it} = \alpha_0 + \alpha_1 CV_{it} + \alpha_2 SIZE_{it} + \alpha_3 LEV_{it} + \alpha_4 CFO_{it} + \alpha_5 OWN_{it} + \mu_{it}$$

	Expected sign	Statistics	
		Coefficient (α)	t-value
Constant	?	0.217***	3.54
CV	—	-0.167***	-3.99
SIZE	—	0.001	0.438
LEV	+	-0.176***	-3.99
CFO	—	-0.655***	-14.34
OWN	+	0.064***	3.35
Adj. R sq.		0.291	
F		21.11	
N		758	

1) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

2) N: number of sample firms

3) OWN: percentage of shares held by the ultimate owner; The other abbreviations are as in Tables 3 and 4..

4) Since the maximum value of VIF was 7.8, the multicollinearity between the independent variables was not significant.

Table 12. Regression analysis of voting rights, cash flow rights, percentage of shareholding by the ultimate owner, and earnings management

$$DA_{it} = \alpha_0 + \alpha_1 CASH_{it} + \alpha_2 VOTR_{it} + \alpha_3 OWN_{it} + \alpha_4 SIZE_{it} + \alpha_5 LEV_{it} + \alpha_7 CFO_{it} + \mu_{it}$$

Variables	Expected sign	Value	
		Coefficient (α)	t-value
CASH	+	0.045	0.98
CONT	+	0.214 ^{***}	4.45
OWN	+	0.079 ^{***}	3.36
SIZE	–	0.002	0.156
LEV	+	-0.170 ^{***}	-3.88
CFO	–	-0.666 ^{***}	-9.91
Adj. R sq.		0.199	
F		7.23	
N		758	

1) ** $p < 0.05$, *** $p < 0.01$

2) N : number of sample firms

3) CASH: cash flow rights; CONT: voting rights; OWN: percentage of shares held by the ultimate owner; the other abbreviations are as in Tables 3 and 4.

4) Since the maximum value of VIF was 21.0, multicollinearity between independent variables can exist to some extent.



Political Cartoons in Commercial Advertising in Early Twentieth Century China

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Abstract

Though advertising has long existed in China, the extensive use of advertisements, especially visual images, to excite the consumers' imagination only started in the early twentieth century in the treaty ports, Shanghai in particular. Many of the commercial advertisements of the period have clear political connotations, such as the 1911 Republican Revolution. This article studies commercial advertisements in early twentieth century China in their political and social context, in particular how advertisements tried to capture consumers' aspirations for progress and prosperity.

Keywords: Commercial advertising, Political cartoons, Early twentieth century China

1. Introduction

Perhaps no one could object to the view that advertising is as old as history, but it has only been since the mid nineteenth century that advertising, in the sense of the visual representation of commodities, together with exhortations to buy that particular commodity, has become a preponderant factor in everyday life in the industrial world (Richards, 1991:1). The earliest extant illustrated advertisements in China can be traced back to the Song (Bai, 2003:1). (Note 1) In modern times, however, advertising in China began in the treaty ports, particularly Shanghai, with the arrival of the modern press in the second half of the nineteenth century. The extensive use of illustrations, including political cartoons, in commercial advertising, started to appear in newspapers during the first decade of the twentieth century. (Note 2) A combination of factors - the development of a commodity culture, the use of illustrations to convey information, the rise of the modern press and social and political conditions in China contributed to this new marketing strategy. The significance of advertisements as historical documents has been already noted by many scholars. An examination of the political aspects of advertisements gives us a vivid sense of social anxieties and the aspirations, real and manufactured, of the time.

2. Consumption and patriotism

Wide acceptance of patent medicine, or "restorative medicine", was a common phenomenon of the nineteenth century world. Patent medicine was aggressively advertised in the press during the period under discussion. In Japan, during the period 1894-1917, the highest percentage of advertisements was for patent medicines (47%), followed by cosmetics (12.5%) (Yamaki, 1992:96). In Victorian England, patent medicine advertisements made up 25% of all advertisements (Loeb, 1994:105). This fad for patent medicines in the West is attributed to ignorance of modern science and a generally low average life expectancy. Such products promised a long and healthy life in circumstances when longevity and health were the exception rather than the norm. "The snake-oil salesman of the 19th century resembled his counterpart of the 17th century: both sold what was essentially an existential idea." (Berman, 1981:71,73, 75). (Note 3) The British medical establishment, and the government, tried to wipe out such patent medicines. From 1868 to 1909, Parliament passed six acts designed to eliminate this sort of quackery (Richards, 1991:170-171). (Note 4)

At about the same time, both imported and locally produced patent medicine also flourished in China. (Note 5) Chinese traditional medical theory held that the body needs constant "fortification" to maintain the proper balance and flow of *qi* within the body, and thus avoid the development of disease. Tonics of any sort, from ginseng to magic mushrooms and countless natural remedies, are part of Chinese daily life. The theory of western patent medicine is based on the theory of humors of the ancient Greeks, which regarded the circulation of blood as the key to the maintenance of balance, and thus health, of the human body (Lears, 1994:142). This was very similar to the native Chinese theory about *qi* and *xue*

'blood'. *Qi* is *yang* and *xue* is *yin*, and the balance between them is essential for the well-being of the human body. Western patent medicines, then, could be understood and accepted in Chinese terms. One of the first western patent medicines to appear on the Chinese market was *Dr. William's Pink Pills for Pale People* (Zhang, 1994: 91; Guojia tushuguan fenguan wenxian kaifa zhongxin, 2001: Vol. 10, 234-235, 254-255, 274-275). Soon Chinese businessmen were producing their own patent medicines. In Shanghai, which was well-disposed to western material culture and western goods generally, local producers often falsely claimed a foreign origin for their goods. Advertisements for patent medicine combined the consumers' desire for longevity with their admiration for Western products. After the 1911 Revolution, however, the consumption of patent medicine was presented in quite a different way, in the context of a newly emerging Chinese nationalism.

During the 1911 Revolution, a tonic called *Man Made Self Propagating Blood* (人造自來血) was promoted as the key to democracy. Advertisements for this elixir stressed that Chinese, in order to cross "the sea of bitterness" of the long political battles ahead, needed a healthy body, which this particular product could guarantee. When it first appeared in the market in 1907, it was called *Boluode Blood Fortifying Miraculous Medicine* (博羅德補血聖藥), the brand name *Boluode* in the title (in Shanghai dialect pronounced *bolúda*) deriving from the English word 'blood'. It was manufactured by the Shanghai International Dispensary Co. Ltd. (上海五洲大藥房), which claimed they had obtained the prescription from a British royal doctor. It did not sell well. The company thought that the name was not catchy enough, and changed it to *Man Made Self Propagating Blood*. It quickly became a commercial success.

The owners of the Shanghai International Dispensary were Huang Chujiu 黃楚九 and Xia Cuifang 夏粹芳. Xia was the founder of the Commercial Press. In 1890, Huang established The Grand Eastern Dispensary Ltd (上海中法大藥房). He produced a tonic called *Ailuo Brain Strengthening Liquid* (艾羅補腦汁), the English name of which was *Yale Stimulant Remedy*. He claimed that he had obtained the remedy from an American doctor, Dr. T. C. Yale. (艾羅 *ailuo* is pronounced *yélú* in Shanghaiese). Shanghaiese had developed a taste for western products of all types, and the tonic sold very well. However, there was no Dr. Yale. The name Yale was derived from the English word "yellow", a translation of Huang, the owner's name. The initials T. C. are from his Chinese name, Chujiu.

The *Ailuo Brain Strengthening Liquid* asserted that having an intelligent brain was the key to success in making money: "Is the only purpose of continuous industrial and commercial competition between continents during the twentieth century only to gain wealth? Is not the aim of making money to gain happiness in life? To survive in this worldwide competition, you need a smart brain. If you lack outstanding intelligence, if you don't have a strong brain, you cannot achieve your goals in life. Happiness in the world depends on wealth. Wealth comes from a strong brain. Since this pharmacy has been selling *Ailuo Brain Strengthening Liquid*, its reputation has spread throughout the world. Even women and children realize its value. From now on, you too can use this medicine to gain wealth. It will not be long before the gap between the rich and poor will disappear. You gentlemen are all living in a time of fierce competition. How could you not purchase *Ailuo Brain Strengthening Liquid* immediately? It will strengthen your brain, make your dreams come true and enable you to enjoy happiness in life." (*Shenbao*, August 31, 1911). Huang made a fortune with this product. One day a foreigner turned up in Shanghai, and announced that he was Dr. Yale's son. His father had died, and he wanted claim his share of the profit. Huang paid the visitor a large amount of money to get rid of him (Zhang, 1994:74-75).

The number of advertisements for *Man Made Self Propagating Blood* was enormous. Before the 1911 Revolution, however, they did no more than stress the benefits of this elixir for general well being. Their logo was a Daoist immortal, and their advertising ran like this: "The products of the International Dispensary Company on Simalu in Shanghai, such as *Man Made Self Propagating Blood* and *African Tree Bark Pills*, work as fast as galloping horses. The sick will get rid of their maladies immediately and the healthy can look forward to a long life. Hygienic compatriots should propagate the message as a matter of importance" (*Shenbao*, February 4, 1909). Early advertisements for *Man Made Self Propagating Blood* stressed that "compatriots with a sense of hygiene simply must have it". The advertisement was capitalizing on the then trendy concept of "hygiene". After the introduction of running water in Shanghai during 1880s, *weisheng* 'hygiene' emerged as a new concept far wider than just keeping clean. It came with a whole package of desirable qualities: being hygienic meant being progressive, open minded and fashionable. If someone was accused of being 'unhygienic', it did not only mean that he didn't wash, but also that he was uneducated and backward (Ye, 2003:52).

On the 9th of September 1911, the *Shenbao* carried testimonials from several educated consumers as to how effective the product was (*Shenbao*, September 9, 1911). Even on 11 October, the main theme of the advertisement was that *Man Made Self Propagating Blood* was "the best medicine to cure twentieth century anemia" (*Shenbao*, October 11, 1911). However, on the 23rd of October, a new advertisement for *Man Made Self Propagating Blood* reacted to the new wave of refugees who fled to Shanghai from the political turbulence in Hubei with a certain degree of political ambiguity: "To all gentlemen who have come to Shanghai and Zhejiang to escape chaos. Recently chaos has erupted in Hubei and Sichuan, and the number of gentry and merchants from those places who have brought their families to Shanghai has

reached two hundred thousand. Such an arduous journey is both exhausting and worrying. Furthermore, being away from home, you may be unaccustomed to the climate and customs of an unfamiliar place. Now that you have arrived, you had better pay attention to hygiene. *Man Made Self Propagating Blood* of this dispensary is the best way to restore blood and *qi*, and help you recover your energy. Many Shanghai gentry and merchants have relatives who have fled to Shanghai. Usual hospitality, such as giving presents or inviting people to a theatre or a western restaurant is a waste of money and of no practical use. Why not purchase *Man Made Self Propagating Blood* as a present?" (*Shenbao*, October 23, 1911).

This advertisement responded to temporary migration during the Revolution without any political comment. However, on the 1st of November 1911, twenty days after the Revolution broke out, the theme of the advertisement changed. It now claimed *Man Made Self Propagating Blood* could aid the "transition from autocracy to the Republic". The cartoon shows a boat with men and women on the sea, with 人造自來血, the Chinese name of the tonic, emblazoned on the sail. The caption reads: "Attention, all patriotic men! Heroes can create the trend of the time; the times can also create heroes. The current situation changes day by day, the affairs of the country are in a state of emergency. This is exactly the time when heroes can utilize their talents and real men can fulfill their dreams. However, to achieve extraordinary feats, you must have a perfect body. To participate in the enterprise of blood and iron, (Note 6) you need *Man Made Self Propagating Blood* from our pharmacy. Once you take our product, your body will be strengthened and your intelligence will be increased. Our pharmacy is producing *Man Made Self Propagating Blood* to meet the demands of soldiers and citizens involved in the enterprise of blood and iron. Is this not a rewarding thing to do? Our fellow citizens are great heroes, magnificent men. For those who yearn to hear, for those who yearn to try, the following illustration will show you how to use it" (*Shenbao*, November 1, 1911). The same theme was used for promoting the product repeatedly. In December readers were urged: "This is the time of blood and iron competition (鐵血競爭時代). If ordinary patriotic men want to increase their fighting ability, they had better take our blood elixir. This will not only strengthen their blood, but their spirit as well. It can also cure anemia. Compatriots! Please pay attention!" (*Shenbao*, December 3, 1911) Another headline a few days later called the blood elixir 'the source of strengthening our country and our race.' (*Shenbao*, December 22, 1911). As well as claiming a role in the developing political situation, this medicine continued to be marketed for more practical ends. "The uprising in Hubei province has been supported by the whole country. However, there is no lack of people fleeing to Shanghai to escape the turmoil. The hardships involved in this travelling can hardly be expressed. People from Hubei, Jiangsu and Zhejiang provinces have not been able to avoid witnessing gunfire, and are shocked and frightened. As a result of being exposed to the cold wind and rain during their flight, people can fall ill. If you do not search for a cure and delay for too long, your illness will become incurable. You must immediately recuperate and regulate your body ... With benevolent intentions, this proprietor wants to bring happiness to our twentieth century compatriots. So please buy this product immediately." (*Shenbao*, November 19, 1911).

At much the same time, another dispensary, the Shanghai Luowei Pharmacy Company (上海羅威藥房) also owned by Huang Chujiu, was promoting products called *Blood Essence* (血素), *Brain Essence* (腦素) and *Kidney Essence* (腎素). It claimed that these were the latest products to strengthen the body and strengthen the race. "Dear compatriots: the army uprising in Wuhan affects the Han compatriots of the whole country ... All those who care for their compatriots, those who espouse righteousness and virtue, should try to support them and join with them to show their love for their compatriots... This pharmacy has great ambition but its strength is meager. We have exhausted ourselves to the limit in assisting our Chinese compatriots. So please purchase this product and send it to Hankou. If you do this, the situation will be greatly improved, and your compatriots will be very grateful. If our heroes obtain this tonic, the task of the Han race will be greatly aided. This is the current task of the Han people, and the support of all compatriots is important. This righteous uprising will succeed, and the task of the Han race will be quickly accomplished." (*Shenbao*, November 5, 1911).

Huang Chujiu, one of the founders of the company, was nicknamed "German brain" (強門頭腦) (in Shanghaiese 強門 *chengmen* sounds like 'German') - an indication of the esteem in which German technology and business acumen was held. The other owner was Xia Cuifang, the founder of the Commercial Press. So it is not surprising the product was so cleverly marketed. Both the *Man Made Self Propagating Blood* and *Yale's Brain Strengthening Liquid* were sold not only in Shanghai, but also throughout China and even South East Asia. (Zhang, 1994:74-75)

Another product of the Grand Eastern Dispensary Ltd was the *Sunshine Iron Pills* (日光鐵丸), formulated by Dr. Wong. The advertisement shows a man in a tuxedo standing on a bottle of *Sunshine Iron Pills* giving a speech. The text reads: "The situation in China deteriorates daily... Everybody must be prepared to carry heavy burdens. Being responsible for the country means that everyone must have a strong body and be full of energy ... to achieve this aim, you had better take *Sunshine Iron Pills*". (Rao and Yang, 2004:342, 344).

Yet another product, the *Clear Minded Wake Up Pill* (清醒丸), claimed to cure heat exhaustion, vomiting, diarrhea, indigestion and drunkenness. It was a Chinese product, so "clear-minded" Chinese (or those who wished to be) should

buy it. The illustration was a dragon spurting out a pill and words appearing in the clouds: "Block the leaking hole" and "Retrieve economic rights" (*Shenbao*, September 13, 1911).

A medicine particularly for the female reproduction system and general well-being was *Fortify the Foundation Womb Pills* (固本子宮丸): "Women make up more than half the population in the county and half of the family. The strength or weakness of the country, the prosperity or decline of a family, largely depends on women. So parents, husbands and brothers - it is your responsibility to make sure that your daughters, wives and sisters are healthy and strong." (*Shenbao*, September 7, 1911). At that time, social activists promoting women's education also stressed that women as mothers and wives were of vital importance to the country. The advertisement was designed to appeal to this strain of social thought as well as to women with gynecological problems.

3. In the name of social progress

Advertisements provide the price and maker of a product, but the key is in convincing people why they must have them. How could advertisements persuade people to purchase non-essential products, or products were not able to connected with patriotism, such as foreign goods?

The image promoted that it was to be modern, progressive and fashionable to have such goods, thereby distinguishing users from certain groups lower down the social ladder. As in the late nineteenth century West, "the attainment of the social ideal was determined not only by the cultivation of culturally desirable habits, attitudes or virtues, but by the acquisition of material things as well." (Loeb, 1994:10). An advertisement for *Scot's Cod Liver Oil* depicts two Chinese children climbing onto a table trying to reach bottles of oil. The headline says: "If you do not use this oil as a tonic to strengthen their bodies, they are truly unfortunate children." (*Shenbao*, October 2, 1911). The clear message is that if you don't purchase this product for your children, you will fail to be responsible and caring parents. This language is no less threatening than some advertisements for patent medicine in the West about the same time: "Do Not Let Your Baby Die" or "Baby on the Battlefield". (Loeb, 1994:7).

New inventions, such as the sewing machine, or the sock machine, liberated women from time-consuming needlework. But what could women do with their newly found leisure time? In 1880s America, a sewing machine was presented as something which could offer new cultural and material standards. Women could make more beautiful clothes for themselves and their children, and have the time to cultivate artistic interests, such as painting. (Laird, 1998: plate 7) In China, prior to the 1920s, women were not encouraged to pursue artistic activities. (Note 7) As matter of fact, during the late nineteenth century, women in Shanghai were already gaining more time for themselves by buying ready made shoes and similar goods. In their leisure time they started to enjoy the theaters and the teahouses, traditionally the preserve of men. The male literati were not impressed (Ye, 2003:153-154).

The sock machine was first advertised in the *Shenbao* in 1911, just before the Revolution. It was a simple illustration of the machine. The caption says that it was made in Britain, and was much superior to similar products. "If important gentry and merchant families would like to purchase it, the price can be greatly reduced. If girls and ladies of famous families would like to purchase it, we can provide female instructors to teach you how to use it." (*Shenbao*, October 3, 1911). In a *Shibao* supplement of 1912, the headline of the advertisement for the machine becomes: "Do you want to make three dollars a day?" The illustration shows a Chinese woman, wearing quite plain clothes, standing by the machine. However, later advertisements were headed sensationally "China has woken up!" The woman in the new version is more modern looking, more glamorous than the earlier one. The woman in the second advertisement is sitting, not standing, with a small teapot and cup next to her, giving the impression that operating the machine is almost a leisure activity. The implication is that smart, attractive and fashionable women would choose to purchase this particular brand of sock machine (Guojia tushuguan fenguan wenxian kaifa zhongxin, 2001: Vol. 10, 203, 269).

However, this advertisement does not go further than suggesting the advantages in making some extra money, and it would be unrealistic to interpret this as a suggestion that women should assume the financial responsibility of supporting a family. The female version of the *Sunshine Iron Pills*, the *Moonlight Iron Pills*, does not claim anything other than being good for women's health. No social responsibility, no crisis in China, only that it was the product of the latest medical research (Rao and Yang, 2004:341). Social expectations for women are still clearly mainly domestic ones. A cartoon by Kitazawa Ratuken in *Tōkyō Pakku* (Tokyo Puck) in 1911 illustrated women's rights and duties in Japan in a similar way. "He contrasts the women who have awakened to women's rights with the women who have awakened to women's duties. The woman who has awakened to women's rights holds a book in her hand while the woman who has awakened to her duties is engaged in needlework." (Wilson, 2002:173). In China, a Japanese patent medicine for women, *chūjōtō* (中將湯) used an illustration of a woman taking a straight and narrow path paved with *chūjōtō*. At the end of the road, there is a stone tablet engraved with the word "health". The text says: "If you are sick, don't get lost and confused. There is only one way. For any sick women who want a smooth journey to recovery, without impediment, there is only one way: *chūjōtō*." (*Shenbao*, November 5, 1911). On the packaging box, it claims it is "The only remedy for female complaints ever prepared in the whole world." It stressed it was prepared by Tsumura Juntendo Ltd, Tokyo, Japan (Zhang, 1994:32, 95). A common advertisement for *chūjōtō* was addressed to men:

“Husbands or husbands to be must study women’s health. If your wife gets uterine disease, or your mother succumbs to depression (憂鬱症), (Note 8) or your sisters have problems with menstruation, or any women in your extended family have any health problems, you must not delay. Read my article and become familiar with it, and at the same time take immediate action. Do not hesitate! Alas, time is like a thief.” There was also a free booklet on women’s health attached to this product. (*Shenbao*, September 1, 15, 25, 1911). From this advertisement, it would seem that the health of women had become a responsibility of men.

Successful commercial advertisements serve as a sensitive thermometer of social conditions and trends. A little over one month after the 1911 Revolution, two western style tailor shops in the International Settlement in Shanghai advertised themselves as playing an important role in marking the restoration of China to the Han Chinese by providing western clothing. One even claimed that wearing western style clothing would lead to the Grand Unity of the world. “Now we have restored the Great Han, all of our soldiers, merchants and students aim for *datong shijie*, the Grand Unity of the world. Cutting off our queues and changing our clothing is becoming more and more common. This is the reason the owner of this shop has invited highly skilled tailors to make western style clothing...” (*Shenbao*, November 27, 1911, December 2, 1911).

In 1911, before the Revolution, the gramophone was advertised as a music machine (唱戲機器). After the Revolution advertisements for the gramophone showed a group of several men sitting in a room, listening intently to a gramophone. The caption says: “The progress of the world (世界進步). Being instructed by the gramophone”. (*Shenbao*, September 1, 1911; Guojia tushuguan fenguan wenxian kaifa zhongxin, 2001:16, 180-181).

Some time later, an advertisement entitled “match making” was not for a matchmaking agency at all, but for eyeglasses. The advertisement is a dialogue between a Mr. Zhong and a Miss Cheng, who date for the first time. “At the first meeting, Mr. Zhong could not find anything to talk about. He saw Miss Cheng’s glasses were very nice, and asked where she had obtained them. She answered very seriously that she got them from a department store inside the YMCA on Dongmalu. They corrected her sight very effectively, and were not expensive. If Mr. Zhong was keen on looking after his eyesight, he should try them. Mr. Zhong answered in English: “Yes, I like it.” (Rao and Yang, 2004:343). An educated, smart and desirable young man should certainly know how to look after his eyesight.

The most successfully marketed products accurately reflected the social mood and trends at the time. Failing to convince people meant failure in the marketplace. An example was the promotion of a brand of Italian olive oil. The illustration shows a Chinese in convict garb, who had been reduced to this state because he could not resist the temptation of stealing some olive oil. This image did not appeal to the Chinese consumer. (Xu, 2006:132). (Note 9) Despite the popularity of Western food in the large cities, olive oil was never accepted by the Chinese. There may be many reasons for this, but such advertisements certainly did not help. (Note 10) There were derogatory images of Chinese used in commercials in other parts of the world. In the United States of the late nineteenth century, an advertisement for rat poison showed a Chinaman holding a rat, his pigtail looking much like the rat’s tail, and the caption saying “They must go!” (Bai, 2003:62). However, that was a different time and place.

4. Capitalizing on the national crisis

It is by no means unusual to use current political issues to stir up public emotions in the interests of promoting various products. In Victorian England, advertising agents presented themselves as empire builders. Current affairs, especially British military victories, were good advertising material. During the Opium War of 1840, when Zhenjiang, the last fortified city on the Yangtze fell, a grocer and tea shop in High Street, Oxford printed the news with an illustration of the battle on their shopping bag:

“The City of Chin-Kiang-Foo is more than four miles in circumference. The parapet being so thick and strong that cannon balls had scarcely any effect on it. The garrison, at the time of the attack, consisted of 3,000 men, of whom 1000, and 40 Mandarins of rank were killed. The first man who mounted the top of the wall was Lieutenant Cuddy, of the Grenadier Company of the 55th. He behaved with matchless gallantry – slowly, but firmly, he climbed the ladder: on reaching the top he waved his sword, and then assisted his men over; but receiving a wound, which disabled him for the rest of the day, he sat down, bound it up, and continued cheering on his men until the close of the attack. The Tartars fought with great bravery – made repeated charges on our men with their long spears, and disputed every inch of ground. The loss of the British, killed and wounded, was – Navy 94, Army 145, total 169.”

A further connection between British military victories and its beneficial effects on British commerce can be seen from the following: “In November 1858 news came through that British troops had triumphed once again over the antiquated armaments of the Imperial Chinese Army - they were even able to burn the imperial summer palace at Peking before the Treaty of Tien Tsin guaranteed British opium traders free access to a number of ports. But the opium trade was not the only one to benefit. Strachan and C., Dealers in Fine Tea of 28 Cornhill opposite the Royal Exchange, took space in the advertisement pages of the Family Friend to make an announcement to tea drinkers. This said that the war with China

was over, that open communication with China was now a “fact beyond recall” and as a result tea prices must inevitably fall”. (Hindley, 1972:117, 118).

There is some similarity between such advertising and later advertising in China, both appealed to a sense of national anxiety among potential consumers. Certain aspects of anxiety in Victorian England - the decline of the empire, loss of prestige, in a way is similar to the sense of crisis in China. However, the intensity of sense of crisis in China was far greater than social anxiety in England. It is not difficult to imagine that it must have emphasized how important personal strength must have been to the citizens of the “sick man of Asia”. So we see the emergence of marketing techniques in linking certain products to patriotism and the demands of the new age.

The first political press in China was a result of the war China lost to Japan, and the development of the modern Chinese political press had close links to Japan (Judge, 1996:20-31). Although *manga* had a long tradition of making fun at society and the hierarchy, there was one thing absolutely off limits. “While it was legitimate to mock the government and its leaders, it was not legitimate to make fun of the national patriarch, who embodied the nation-state in his person.” This was not the case in China. The extensiveness of criticism and satire towards all social groups at all levels was such that no social group or individual was immune from being ridiculed or attacked, including the imperial court itself. The sense of satisfaction Japan had for its progress was in sharp contrast to the social mood in China. A few examples show the difference. In 1879, a Japanese cartoon showed two men in a race. The comment on the Chinese was: “With that big body he cannot walk at all, so everyone makes fun of him. Hey, look! He’s walking Chinese-style - higgledy-piggledy.” The caption referring to the Japanese read: “He’s little, but he is travelling as light as a dragonfly. He sure is fast-footed, isn’t he?” By the turn of the century, after the Japanese government had successfully renegotiated the “unequal treaties”, the difference in mood was even more marked. An 1899 cartoon by Kitazawa Rakuten showed a stylishly dressed Japan throwing a reception for the family of civilized nations, to which it now belonged (Duus, 2001:986, 981, 984).

Patriotism was not the exclusive capital of Chinese companies. Some foreign businesses also tried to cash in on the trend. Soon after the 1911 Revolution, a Western company which sold, amongst other things, hair-cutting scissors, advertised their usefulness in removing pigtails for the citizens of the new Republic (*Shenbao*, December 3, 1911). A Japanese medicine, *Jintan* (仁丹) had been previously advertised as having some sort of magical effect. About one month after the Revolution, it changed its tune. Keeping the original logo, the text now read: “The prosperity of a country, the fortune of a family, all rely on the abundance *qi* and blood of its citizens. Abundant *qi* and blood comes from having a strong body. A strong body comes from taking *Jintan*. If all of you desire the prosperity of the country and the fortune of the family, you can only protect your health by taking *Jintan* every day.” (*Shenbao*, November 30, 1911). The next advertisement reverted to stressing its magical effect, but the illustration shows masses of people of all groups of society who have benefited from regular doses of *Jintan* (*Shenbao*, December 22, 1911).

When Mao Zedong was interviewed by Edgar Snow in Yan’an, he told him that when he was a young man, after the 1911 Revolution, he was passionately patriotic, searching for a way to save China. “I began to read advertisements in the papers. Many schools were then being opened and used this medium to attract new students. I had no special standard for judging schools; I did not know exactly what I wanted to do. An advertisement for a police school caught my eye and I registered for entrance to it. Before I was examined, however I read an advertisement of a soap-making “school”. No tuition was required, board was furnished and a small salary was promised. It was an attractive and inspiring advertisement. It told of the great social benefits of soap making, how it would enrich the country and enrich the people. I changed my mind about the police school and decided to become a soap maker. I paid my dollar registration fee here also.” (Snow, 1937:167). (Note 11) I have not been able to find that particular advertisement, but the link between hygiene and personal strength, and between personal well being and national survival, clearly made an impression on the young Mao. Taking of patent medicines and being ‘hygienic’ was more than a matter of personal well-being, it was a matter of national survival. Not long after the Revolution, advertisers used the new National Flag as a background to their products (Guojia tushuguan fenguan wenxian kaifa zhongxin, 2001: Vol.11, 411). The early attempts of advertisers to link consumption of their products with patriotic duty did indeed have a role to play in modern Chinese history.

References

- Bai, Guang. (2003). *Zhongwai zaoqi guanggao zhencang yu pingxi* [A critical analysis of collections of early advertisements from China and the world]. Beijing: Zhongguo guangbo dianshi chubanshe.
- Berman, Ronald. (1981). *Advertising and social change*. London: Sage Publications.
- Bi, Keguan. (2005). *Zhongguo manhua shihua* [History of Chinese cartoons]. Tianjin: Baihua wenyi chubanshe.
- Duus, Peter. (2001). Presidential Address: “Weapons of the weak, weapons of the strong - The development of the Japanese cartoon”. *Journal of Asian Studies*, Vol. 60, No. 4 (November) 965-97.

- Geremie R. Barmé. (2002). *An artistic exile - A life of Feng Zikai (1898-1975)*. Berkeley: University of California Press.
- Guojia tushuguan fenguan wenxian kaifa zhongxin ed. (2001). *Qingdai baokan tuhua jicheng* [Collected newspaper illustrations of the Qing dynasty]. Vol 10. Beijing: Quanguo tushuguan wenxian suowei fuzhi zhongxin.
- Hindley, Diana and Geoffrey. (1972). *Advertising in Victorian England, 1837-1901*. London: Wayland Ltd.
- Judge, Joan. (1996). *Print and politics - Shibao and the culture of reform in late Qing China*. Stanford: California: Stanford University Press.
- Laird, Pamela Walker. (1998). *Advertising progress - American business and the rise of consumer marketing*. Baltimore and London: The Johns Hopkins University Press.
- Lears, Jackson. (1994). *Fables of abundance - A cultural history of advertising in America*. New York: Basic Books.
- Loeb, Lori Anne. (1994). *Consuming angels - advertising and Victorian women*. New York and Oxford: Oxford University Press.
- Rao, Huaimin and Yang Xinsheng eds. (2004). *Zhongguo jindai manhua shiji xunzong* [A search for traces of the history of the modern cartoon in China]. Changsha: Yuelu shushe.
- Richards, Thomas. (1991). *The commodity culture of Victorian England - advertising and spectacle, 1851-1914*. London and New York: Verso. First published by Stanford University Press, 1990.
- Snow, Edgar. (1937). *Red star over China*. Victor Gollancz Ltd, 1937. Reprinted Pelican Books 1972.
- Wilson, Sandra. (2002). *Nation and nationalism in Japan*. London and New York: Routledge, Curzon.
- Xu, Junji. (2006) *Zhongguo guanggao shi* [A history of Chinese advertising]. Beijing: Zhongguo chuanmei chubanshe.
- Yamaki, Toshio. (1992). *Nihon kōkoku-shi*. [A history of Japanese advertising]. Tokyo: Nihon keizai shimbun-sha.
- Zhang, Yanfeng. (1994). *Lao yuefenpai guanggao hua* [Illustrated advertisements from old monthly calendars]. Taipei: Yingwen hansheng youxian gongsi.

Notes

- Note 1. The earliest extant Chinese advertisement is held in the National Museum of China, Beijing. It is a Northern Song dynasty advertisement for a needle shop in Shandong. The illustration is a rabbit, indicating that the needles are as thin as rabbit's fur. (Bai, 2003:1)
- Note 2. There was no unified term for such illustrations: *yomohua*, *fengcihua* or *huajihua* were commonly used. The word *manhua*, derived from Japanese *manga*, was first used in its modern meaning in Chinese by Feng Zikai in the 1920s, and has now become the standard term. The first artist to use cartoons in advertising was Feng's mentor, Li Shutong. Both Feng and Li had studied fine arts in Japan. (Bi, 2005:20; Barmé, 2002:47-71, 92-97).
- Note 3. Life expectancy in the United States at that time was about 47 for whites and about 33 for blacks. (Berman, 1981: 71,73, 75)
- Note 4. The Sale of Food and Drugs Acts of 1875 and 1899, the Merchandise Marks Act of 1887, the Indecent Advertisements Acts of 1889, and the Poisons and Pharmacy Act of 1908 (Richards, 1991:170-171).
- Note 5. Even now "restorative medicine" is not subject to regulation. The modern equivalents are the *baojian yaopin* "health preservation medicinal products". They are pervasive on television and prominent in street advertising.
- Note 6. The allusion is to "Blood and Iron", the slogan of Otto von Bismarck, the Iron Chancellor of Germany. The term was adopted in China about the time of the 1911 Revolution to symbolize the qualities necessary for the survival of China.
- Note 7. Political cartoons during the second decade of the nineteenth century often made fun of female students in new style clothing, or exhibiting other types of daring social behavior. (Rao and Yang, 2004: *wanxiang juan*, 281).
- Note 8. In this advertisement, the term *youyuzheng* is used. *youyu* traditionally had the meaning 'sad, depressed', but *youyuzheng* is a modern medical term for clinical depression.
- Note 9. Xu does not provide the illustration or give details of the reference.
- Note 10. A very successful example of this is Worcestershire Sauce, known in Chinese as *lajiangyou* "hot soybean sauce". It is still very popular in Shanghai. Few Chinese, if any, realize its foreign origins. At the time, it was advertised as Lea and Perrins Sauce, and the text notes that it came from Worcestershire, England. For an early advertisement, see *Shenbao*, September 1, 1911.
- Note 11. For information on 19th century soap advertisements in the United States and England, see Laird (1998: 300); Loeb (1994:11, 109, 112,115).
- Note 12. Rao Haimin and Yang Xinsheng ed. *Zhongguo jindai manhua shiji xunzong*, Shehui wanxiang, Changsha: Yuelu shushe, 2004, p. 342, 344.

Caption 1.



Note: Twenty days after the 1911 Revolution broke out, the theme of the advertisement changed. It now claimed Man Made Self Propagating Blood could aid the “transition from autocracy to the Republic”. The boat is a symbol of crossing the vast “bitter sea”.

Caption 2.



Note: The advertisement shows a man in a tuxedo standing on a bottle of Sunshine Iron Pills, giving a speech. The text related to this illustration reads: “The situation in China deteriorates daily... Everybody must be prepared to carry heavy burdens. Being responsible for the country means that everyone must have a strong body and be full of energy ... to achieve this aim, you had better take Sunshine Iron Pills”. (Note 12)

Caption 3.



Note: This advertisement for a new sock-making machine has a sensational headline: “China has woken up!”

Caption 4.



Note: Western style tailor shops in the International Settlement in Shanghai advertised themselves as playing an important role in marking the restoration of China to the Han Chinese by providing western clothing.

Caption 5.

東瀛第一
起死回生
JINTAN 仁丹

一國興旺一家榮幸全在
民人氣血充足的氣血充足
就由體軀強健而得體軀
健康就依服用
仁丹獲得的

我說幾位老頭
一國一家的隆盛和
以得每天愛用仁
以保得各人的
健壯纔好

●到處馳名藥房洋廣貨舖均皆代售賜顧士紳就近購取為荷

仁丹最大好處

●仁丹 日本著名醫學大家三輪井上
兩博士合編秘方不惜工費搜羅萬寶
藥料係于所處氣候合時靈效世不
見其匹以故居常服用仁丹能防惡疫
於未發時神氣血暢順為固本強身之
●仁丹 化食消滯防痰瀉毒助腸胃
是以進食後服用此丹三四粒必免腹
胃各症之患

●仁丹 此藥優秀其得能祛穢濁一
粒覺覺心曠神怡除口臭口臭使
聲音明啾玲瓏以故為口中常備之良伴

仁丹價目
大瓶全 五元
中瓶全 二元五角
小瓶全 一元二角
大瓶全 五元
中瓶全 二元五角
小瓶全 一元二角
大瓶全 五元
中瓶全 二元五角
小瓶全 一元二角

總代理 上海南京路老德記藥房 亞東公司藥局 各埠分行均有代售

Note: The advertisement for a Japanese medicine, Jintan (仁丹), changed its theme immediately after 1911 Revolution, connecting “the prosperity of the country” with its product.



The “Gown” Collar Style of Hunni Burial Puppet in Tang Dynasty

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Abstract

The “Hunni burial puppet” in this paper means the funerary object in the Tang Dynasty grave which has “the deep eye and high nose”. Because the looking usually appear in male puppet, and the fashion in this article is also restricted in the male clothing. This article compared the burial puppet and the mural image in Yellow River area with the Central Asia region, then do Comparative analysis of the “gown” collar style of West Hunni burial puppet in Tang Dynasty. There are two “gown” collar style in Hunni burial puppet in Tang Dynasty: Triangle single turndown collar which stems from “Yan Da” of Central Asia and Double turndown collar which is popular in Central Asia from 4th century A.D. to 7th century A.D.. Compared to the triangle single turndown collar, the double turndown collar gown is more popular in Yellow River area. The circle collar style may be another kind of turndown closed collar.

Keywords: Hunni burial puppet, West Hunni, Grown, Collar style

1. “Hunni”, “Hunni puppet” and “Hunni costumes” in Tang Dynasty

“Hunni” was the name that ancient China Han Nationality called alien race. The scope of “Hunni” is different in historical records of different time in Han and Tang. Mr. Wu Zhen considered that “Hunni” refers to the Xiongnu specially in pre-Qin and alien race in the west and the northern Yellow River. From Southern and Northern Dynasties to Sui and Tang dynasties, this became the characteristic general designation of western region nationality which has “the deep eye and high nose”. This article receives its viewpoint and consider that “Hunni” Tang Dynasty means west Hunni, in another word, “Hunni” means the races in Central Asia, West Asia as well as east onion range. The Hunni burial puppet in the Tang Dynasty is the burial puppet which has “the deep eye and high nose”.

In Tang dynasty, because there are numerous of Hunni on the Silk Road, their life and images are written not only down the historical records, but also recorded in the sculpture and the pictorial representation. By the modern times archaeological discovery, Hunni burial puppet is not popular from 16th century when Shanxi and Ningxia appear Hunni burial puppet to Initial Tang Dynasty. After era of Gao Zongxianqing, Hunni burial puppet became very popular and considerable numbers. In excavated Sui and Tang dynasties grave, particularly large-scale, medium grave, the unearthed Hunni burial puppet is countless, the unearthed place concentrates in Shanxi, Henan as well as Xinjiang. This article selects Sui and Tang dynasties grave in Xi'an.

The Research of Tang grave burial puppet clothing of senior scholar mainly emphatically in two aspects. First, they judges Hunni's status and race from hair style, clothing's characteristic, then discuss China and the West cultural exchange related subject. But in the clothing history research monograph, they may more focus on exploring the impact of Hunni costumes to Han Nationality clothing. This article attempted by the related image contrast, researching the difference and the source of the collar style of Hunni puppet gown, would like to learn more about the Hunni-Han Tang Dynasty Costumes blend phenomenon.

2. The “gown” collar style of Hunni burial puppet in Tang Dynasty

The senior scholars' research was to the Hunni costumes most concentrate on “the hair style” or “the hat decoration”. Because of the type of profile-type “uniform”, “Gown” that is the main body of the “Hunni costumes” is neglected frequently by the researchers. Therefore, it's little more than a few over, these gowns in each kind of writings often describe simply that “the narrow sleeve tight-fitting gown”, “the waist tie a belt”, “wear trousers”, “the foot pedal boots”. To any time's clothing history research, the clothing overall profile of the relative stability of type was

self-evident, but differences in clothing style often through changes in the local manifestation. Therefore, the research and discussion of the origins of clothing should also focus on these subtle differences.

The collar in the clothing is not only near the head and the neck, is also the symbolic structure in the clothing which bearing age and national identity. In fact, before Xianbei Obtains the political power, the men and women clothing in the Yellow River all take the cross collar. In the Dun Huang fresco of Eastern Wei and Western Wei Dynasty, although many character image puts on the narrow sleeve and circular collar gown, the Yellow River's grave burial puppet in the same time show that the Xianbei Nationality clothing's influence is not profound. According to the present archaeology material, massive gown appears in the Northern Qi Dynasty, its shape can be seen from the mural of Xu Xianxiu grave and Dong'an Wang Lou grave in Northern Qi Dynasty. The male gown collar already has the circle collar and the cross collar which is non-format. The turndown collar gown began in Sui and Tang dynasties in the Yellow River area, especially in the characteristic foreigner image having "the high nose and deep eyes". By the numerous excavations and related the research, the Hunni burial puppet long gown's collar mainly has three kinds, namely "single turndown collar", "double turndown collar" and "round collar", with the turndown collar style is the majority. The turndown collar gown also has two types, the single turndown collar and the double turndown collar. The breast of two-style gown mainly assume right style, the turndown collar assumes the triangle (picture1) (picture2)

2.1 Triangle single turndown collar

On the Tang Dynasty "the Hunni costumes", Mr. Duan Wenjie once pointed out: Tang Dynasty's fashionable clothing and new clothing style most comes from the northwest national minority or Central Asia and even Persia. Mr. Jiang Boqin once had the monograph on the origins of triangle turndown collar long gown. He contrasts Dun Huang, Keizer, as well as Para Reck and the Fengdu base Stan mural character image, and considered that the triangle turndown collar long gown is popular in Central Asia foreigners' clothing, that this discusses works as unmistakable. However, then he further pointed out that the single turndown collar long gown in the 6th century is aristocrat's clothing of Sogdians and Yanda race, it seems improper. It is not difficult to discover that in Para Reck mural, the maid holds the fan after the male and female master also take the triangle single turndown collar gown (Figure 3). Therefore, this style clothing's use should not be limited to the aristocracy. By Mr. Jiang elaboration, although we may affirm that the triangle single turndown collar gown became popular from 5th to 6th century in Central Asia, but actually it belongs to the Sogdians or Yanda person? Explaining this question we especially carry on further combing their mural images.

The 5th to 6th century's Sogdians image material, mainly saw in Guanzhong and Xinjiang area archaeological discovery. The Guanzhong area many are the grave archaeology, like Xi'an Northern Zhou Dynasty's An Qia and Mr. Shi grave. These graves have preserved materials of the massive 6th century's Sogdians images. In these image materials, the short hair image's Sogdians puts on the circle collar gown the minority wear double turndown collar gown, there is not illustration of the single turndown collar gown But in the 5th to 6th century's Xinjiang Keizer mural, many Sogdians merchant images have not the single turndown collar gown illustration (Note 1). Through this batch of image material's combing, we have the reason to suspect that the style of single turndown collar gown stems from Sogdians.

Until now, the mural of City site of Balalyk-Tepe is knew as the earliest Central Asia Middle Ages' large-scale mural. It lies in northwest of the Uzbekistan Iron Maze city. Although its ruins is in ancient Sogdians area. However, scholars generally agreed that its mural content was the Yanda aristocrat's life portrayal in first half of 6th century. In Para Reck mural, the male waist ties thin waistband which hold the sagging "the matter" such as the handkerchief, the bag, the dagger and so on. From sincere hangs and wide band, the waistband should made by the metal. This belt style has the obvious north nomads' characteristic which is different from Kent mural tablets governance Sogdians with the characteristics of a long sword or purse. From Para Reck mural, triangle single turndown collar gown in Yanda should be the casual clothes which the men and women, poor and richer, and this may also prove that this kind of style has continued quite long time in this nationality. In addition, remains belong to Yanda Art the Dilberjin 16 cave murals (at the beginning of the 5th or 6th century) also had the attire same male model (Note 2). Through combing and contrast of the remains of the Sogdians and yandas' murals, initially, we may be "single-lapel triangle robes" attributed the origins of 5th to 6th century Yanda rather than Sogdians.

As a result of Yanda at 5th to 6th century Tocharians Stein as well as some areas of Eastern Turkestan hegemony (Note 3), we have reason to believe, the style of single turndown collar gown obtained the extremely broad dissemination. First accepts working as for Sogdians. Figure 5 is bowl wall's about two parts of gold-plated silver bowl. Some scholar's according to the special engraved inscription of bowl on Sogdians characteristics, "this bowl belonged to special 6th to 7th century's at the beginning of Sogdians. In chart 5A describes images of Greek Rome about myth theme, as well as grand duke, the mural is extremely similar with Para Reck. But on chart 5B the feasts scene and An Qiemu in the folding screen image scene is exactly the same. What is different here special Sogdians merchant is putting on the Yanda style of triangle single turndown collar gown (Figure 5). Besides Sogdians area, from west to east, we in Keizer 6-7 murals discovered triangle single turndown collar gown illustration to enrich. We have the discovery like the 8th hole, the new 1 hole (Figure 6), 69 holes, 104 holes, 224 holes and so on. Regardless of being leads, the hair lace as well

as the waist decoration, the male image is quite similar with Para Reck mural. Some scholars also thought, the Dilberjin in the mural character posture and the clothing have certain contacting with the Keizer mural.

Although it's difficult to have the comprehensive statistics, but only hides the Hunni burial puppet as to the Xi'an Ganling Museum and the Shanxi archaeology, it's not infrequent to put on the single turndown collar gown. When we see the Tang Dynasty different hair style of west Hunni burial puppet are putting on this gown type. Some reasons extrapolated, in the Tang Dynasty, the triangle single turndown collar gown has become one at least numerous west Hunni Nationality used designs.

What must stress, the single turndown collar gown of Tang Hunni burial puppet and Para Reck and in the Keizer mural image saw the style still to have the difference.

First, Tang the Hunni burial puppet turndown collar gown is right style, and the gate lapel occupies the body side. But in above mural of turndown collar gown exists not one exception all fastening clothes on the left, the gate lapel comes between (Figure 7). Next, Tang burial puppet the single turndown collar gown's gate lapel and leads the reason are not to have the list, but leads the cristaria which lets fall naturally to extrapolate, its lining is frivolous, also does not have the dermatoglyphic pattern decorative design, should many by the silk system. But Para Reck and Keizer sees the long gown, not only nearby reason complex, and main body lining many for continuous grain, water chestnut standard flowers and plants grain and so on, is big for brocade's possibility. It has this kind of difference the reason mainly to lie in the status of these Hunni burial puppets. If the most report excavated to state, these Hunni burial puppet do grasps the reins ropy, and is buried as a funerary object time puts in the horse, nearby the hunchbacked funerary objects. Also, therefore many are called as then "leads a horse the Hunni burial puppet" or "pulls the hunchbacked Hunni burial puppet", the most burial puppet alike prototypes are extremely possibly house slaves of the aristocrat. Its status had decided they take the magnificent and expensive brocade clothing's ability to be relatively limited. And because the long-term life in the area south of Yellow River, only then changed still fastens clothes on the left for the area south of Yellow River institute right style, also in reason.

2.2 Triangle double turndown collar gown

Opposite the triangle single turndown collar gown, in the mural and in the carved stone image material, the triangle double turndown collar gown illustration quite a lot, in Para Reck, the piece govern in Kent, Keizer and the Northern Zhou Dynasty stone portray have see. Mentioned in the preceding text, Anjia grave had the double turndown collar gown's clothing image (Figure 8), but its turndown collar assumes the rectangle, it is narrow and takes the form of gets aedging together. Mural of triangle turndown collar leads with Para Reck is different (Figure 9). However, it governs in the Kent private home with the piece in the mural several character clothing to be similar (Figure 10, 11). We in the Keizer mural (Figure 12), the Northern Qi Dynasty paint a portrait the stone (Figure 13) as well as in the Pakistan Fengdu mural (Figure 14), actually discovers with Para Reck similar triangle double turndown collar style. But the above image comparison, may affirm that the double turndown collar style was one of 4th to 7th century's Sogdians area more popular clothing. According to turndown collar's shape, also has two types. One is the linearity narrow collar; The other is triangle turndown collar, is also in Tang Dynasty Hunni burial puppet the common double turndown collar leads.

Opposite the triangle single turndown collar, the double turndown collar is high in Tang Dynasty's popular degree. Looked by Tang burial puppet and Tang Dynasty mural material that the triangle single turndown collar is restricted in the foreigner burial puppet to take, but the double turndown collar accepts for the area south of Yellow River men and women, possibly is nearby symmetrical as well as the reason decoration effect, the double turndown collar gown receives the Tang Dynasty feminine favor specially, in the Weijiong grave, Xuejing grave as well as Li Shou grave carved stone coffin line chart has the full performance. (Figure 15)

2.3 Turndown collar and round collar

Generally, the Hunni burial puppet long gown's collar mainly has three kinds, namely "single turndown collar", "double turndown collar" and "round collar". But Hunni burial puppet has "the high nose deep head" in characteristic by the turndown collar majority, particularly the single turndown collar is audiences. In fact, so-called "turndown collar" and "round collar" is putting possibly only on the condition different indication. Because we in many Hunni burial puppet turndown collar angle, have discovered the circular button (Note 4) (Figure 16). By this detail extrapolation, after this gown closed, should be the circle leads the style. But this kind of circle gets the gown is also in the Tang Dynasty pictorial representation, the majority of Han are putting on style.

The clothing image with button turndown collar is to see in the Tang Dynasty area south of Yellow River area image material. But Para Reck and in the Keizer mural's turndown collar image does not have button much. Only the discovery had an example in approximately the 7th century Keizer 224 hole cremation chart (Figure 17). This character deep height of eye nose, the short hair uneven ear, the surcoat ties up tightly, fastens clothes on the left the single turndown collar, the gate lapel comes between, gets the lapel reason brocade. The above characteristic conforms to the

type of Yanda turndown collar gown which our preamble concerns. The only difference is gets the point to decorate has three petal shape button. But this kind of Canadian button is putting on the way which the full circle leads, also extremely possibly receives the Han people esthetic influence. Because, in turn looked, we very difficult to see the Han people put on the single turndown collar gown's illustration. As if the Tang Dynasty Han people do not like this kind of Tanzania chest, and asymmetrical tong gown style.

Through the above analysis, we believed that speaking of the long gown, leads is the very important nationality and the culture symbolized, is also we searches the source and course and along receives relational the guidepost. Under its direction, we infer, west the Tang Dynasty the foreigner is partial the triangle single turndown collar gown really stems from has moves about in search of pasture the blood relationship Yanda person. Under Yanda person long-term rule, western region each Hunni has accepted this same-like gradually, but the area south of Yellow River Han people have not as if always admitted. In addition, the double turndown collar style in 5th to 7th century's Central Asia, was the quite common gown type. When in Sui and Tang Dynasties, sees in the area south of Yellow River transvestite maidservant image, just like one popular prevailing custom. But the Han Nationality men put on the Northern Qi Dynasty style circle to get the gown. Therefore, only speaking of the long gown, west the Hunni costume is relatively limited to the area south of Yellow River Han Nationality clothing influence. On the contrary, the foreigner adds button on the turndown collar, changes fastens clothes on the left right style, many for area south of Yellow River clothing's influence result.

References

- China Encyclopedia Archeology. (2004). Encyclopedia of China Publishing House, 28.
- Duan, Wenjie. (1998). Dunhuang murals dressed in costumes, in Dunhuang Rock cave Art Analects. *Gansu People's Publishing House*, 257.
- Jiang, Boqin. (2001). Dunhuang Mogao Caves Sui Provides for Person Hunni Costumes Research, in Commemorates Dunhuang Buddhist scriptures Hole To discover 100th Anniversary International Academic Seminar Collection. *Liaoning People's Publishing House*, 356-358.
- Management in Shanxi Province. (1959). Changan South Lane County (Li) Wang Village Tang Weijiong grave Excavates Records. *Heritage*, No. 8.
- Rong, Xinjiang. *With Gold Cup and Good Wine drunk another region-from An Qiernu tomb to see Sogdians Material Culture Penetrates eastward*, in Silk Road Art and Life. The Hong Kong Skill Gauze Hall\Costumes Press, 23.
- Shanxi Archaeological Research Institute. (2003). *Xi'an Northern Zhou Dynasty An Qie Grave*. Heritage Press, 72-75.
- Shanxi Archaeology Institute. (2000). *Tang Dyansty Xue Jing Grave Excavates Report*. Science Press.
- Shanxi Provincial Museum. (1974). *The tube will be: "Tang Lishou Grave Excavates Bulletin"*. Heritage, No. 9.
- Sri Lanka it Krzyzewski. (1992). *Ancient Art of Central Asia*. Shanxi traveling publishing house, 117, 122.
- Sun, Chi. (1982). Tang Dynasty Hunni burial puppet, Camel and "Silk Road". *Archaeology And Heritage*, No. 1, 106-108.
- Wu, Zhen. (2006). Archaeology material of Astana-Harrar and Zhuogu tombs sees the Hunni. *Turfan Studies Discusses Newly*, Xinjiang People's Publishing House, 265-266.

Notes

Note 1. See in the Keizer 38 holes, 114 holes, 14,17 holes and so on. Ying Shanyuezi, Rong Xinjiang research articles are those of India Savimbi security image is a prototype businessmen Sogdians. See Ying Shanyuezi, <<Sogdians in Qiuci: From archaeology and image study angle research>>, See <<French Sinology>> Books for the editorial board, <<Sogdians in China-history, archeology, language of the new exploration>>, Zhonghua Book, in 2005, Pages 191-204; Rong Xinjiang, <<Settlement of Migrants in the Western Regions Sogdians Examination>>, <<Research in the Western Regions>>, in 2005, NO.2, Page 9.

Note 2. И.Т.КРУГНИКОВА, НАСТЕННЪДЕ РОДСИСИ В ДОМЪЩЕНИИ 16 СЕВЕРО-ВОСТОЙНОГО КУПЪТОВОГО КОМДПЕКСА ПИПЪВЕРДФИНА, ИЗАТЕПВСТВО НАУКА МОСВА 1979.

Note 3. Yanda 5 end of the century has occupied the entire Tocharians Stein, including a large portion of the Pamir and Stan Afghanistan. At the same time, also took a large part of East Turkistan. And 479, the conquest of the Turpan region, in 522, the Rouran pyridaben chief of northern region of Dunhuang have also surrendered Yanda. See special Bukovinsky BA LI, <<History of Civilizations of Central Asia>>, China Translation and Publishing Corporation, in 2003, Page 112.

Note 4. Picture of the figurines from the National Palace Museum series, <<the decorative carving like lives: Imperial Palace Tibet Sui and Tang dynasties pottery burial figurines>>, Forbidden City Press, in 2006, figure 134.

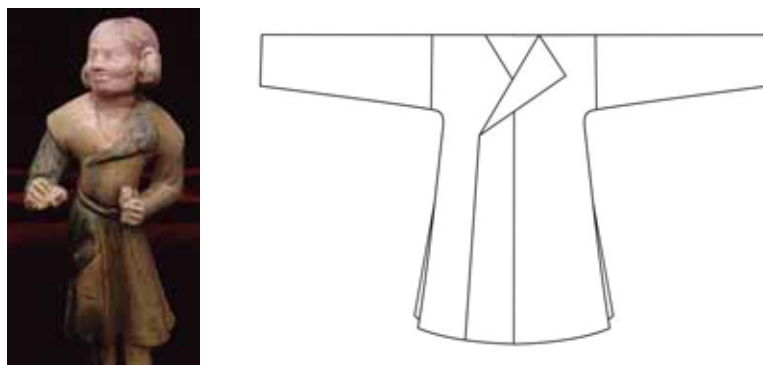


Figure 1. The prototype of single turndown collar gown and schematic models

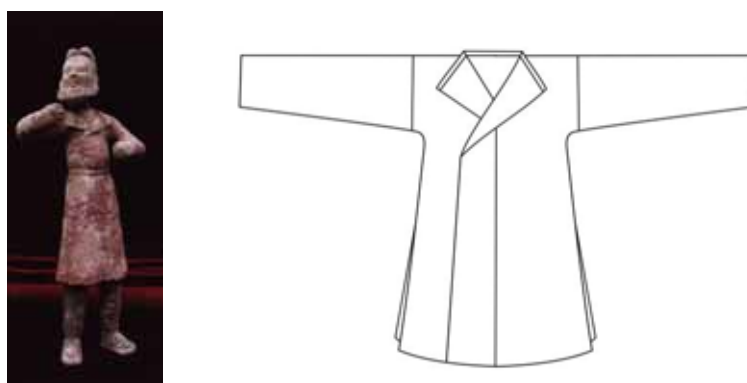


Figure 2. The prototype of double turndown collar gown and schematic models



Figure 3. Figure of Para Reck feasts 5th to 6th century

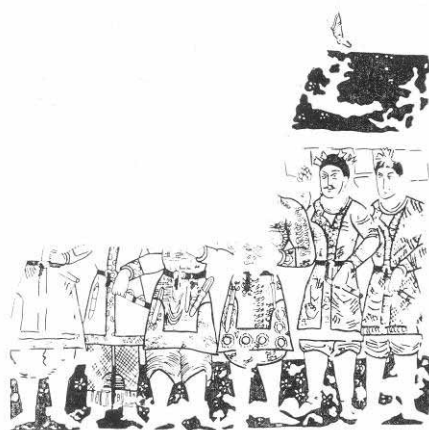


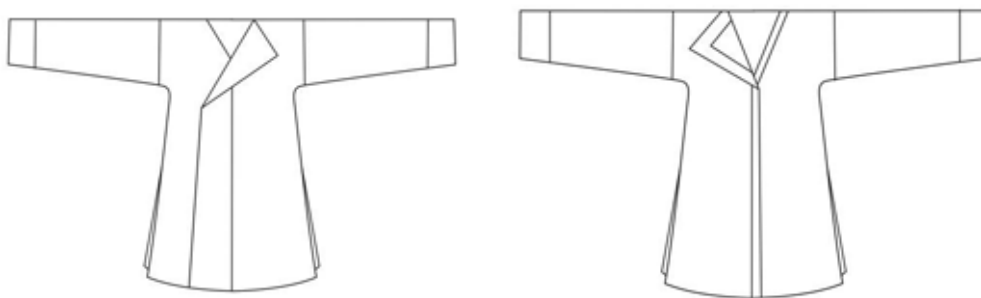
Figure 4. Dilberjin 16 Cave dependent Portrait 5th to 6th century



Figure 5. Gold-plated Bowl Sogdians 6-7 century AD



Figure 6. Kizil caves support a new 1 like 7th century AD



A. Tang Dynasty area south of Yellow River Hunni burial puppet single turndown collar gown schematic drawing

B. Yanda style for sample turndown collar gown schematic drawing

Figure 7. Comparison of single-lapel gowns diagram



Figure 8. Anjia Tomb of positive double-lapel wearing hats from the 6th century AD



Figure 9. Mural of Para Reck who wear double-lapel, the 5-6 century AD



Figure 10. Kent mural tablets rule double lapel wearing, the 7th century AD

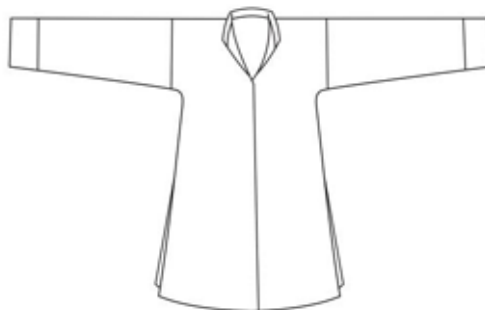


Figure 11. Kent mural tablets rule double lapel diagram, the 7th century AD



Figure 12. Kizil Caves Sogdians 38 businessmen, 4th century AD



Figure 13. Northern Qi Dynasty paints a portrait the Stone, 6th century AD



Figure 14. Pakistan Fengdu mural, 7th century AD



Figure 15. Xue Jing headstone carved coffin Line Chart



Figure 16. Hunni figurines possession of the National Palace Museum



Figure 17. Keizer 224 holes cremation chart, the 7th century



Cognitive Development, Analytical Thinking and Learning Satisfaction of Second Grade Students Learned through Inquiry-based Learning

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Abstract

Science teaching needs to be able students having knowledge and understanding. Also, students have to develop their thinking skills, it should help students meet real science through inquiry-based pedagogical process. This study aims to (i) investigate effective teaching criterion through inquiry-based teaching at 80/80, (ii) find out effectiveness index of inquiry-based teaching, (iii) compare analytical thinking between before and after students had learned by inquiry-based learning activities, and (iv) study learning satisfaction of second grade students after they had learned through inquiry method. Participants of the study were 10 second grade students, sampled by purposive sampling technique. Research instruments comprised of 8-lesson plan, 20-item achievement test, 20-item analytical thinking test, and 15-item questionnaire on learning satisfaction. Data were gathered and analyzed by Wilcoxon Matched Pairs Signed-Ranks Test. Results revealed that inquiry-based learning activities had effective criterion at 84.46/82.50; effectiveness index of inquiry-based learning activities was 0.5200; post test score of achievement test higher than those pre test score at .05 statistical significance level; and students had learning satisfaction on inquiry-based learning activities at highest level. It can be concluded that inquiry-based learning activities promoted students in terms of both cognitive, analytical thinking, and learning satisfaction. It should be suggested in for pedagogical preparation and incorporate it into science curriculum.

Keywords: Inquiry-based leaning, Cognitive development, Analytical thing, Learning satisfaction

1. Introduction

In the context of changing world, we need to develop our children to learn science in terms of nature of science, scientific literacy, and science process skills. The pedagogical aspects need to have inquiring mind in science and make them to meet both scientific facts and creativity. The learning perspectives also have all been considered as an important of science education goals (AAAS, 1993; Bell and Lederman, 2003). Science education has a responsible importance in raising individual experiences and attitude towards science. School science is to enable students to observe their natural environment and to develop skills required to understand and explain both themselves and their environment (Marx, 2004).

In science education, inquiry-based learning allows students' learning by doing, is relied on Dewey's school life and on that students learn how to solve problems by themselves (Dewey, 1938). This method is a complex but realistic process in which students use their prior knowledge and scientific theories to generate new understandings of science (Yoshina and Harada, 2007). The idea of teaching science by inquiry method allows students to encourage, explore, and experiment

with their own concepts about science. In addition, Inquiry-based learning can be referred to diverse ways in which scientists study the natural world and propose explanations based on evidence derived from their work. It included the activities of students in which the develop knowledge and understanding of scientific ideas, as well as an understanding of how scientists study the natural world (National Research Council, 1996).

The approaches challenges to instructional strategies based on reality of science teaching, it need to able helped students learn natural things that surround them. Teachers have to use instructional methods based on recitation and direct instruction. The inquiry teaching challenges science learning to develop new content knowledge, pedagogical techniques, approaches to assessment, and classroom management (Krajcik *et.al.*, 1998). Inquiry-based learning requires students to collaborate with peers, think deeply about complex concepts, relate new science content to their lives, and self-regulate their behavior. It also can be bridged scientific and cultural ways of knowing to the meaning of lives and environment (Cuevas *et al.*, 2005).

The National Academy of Sciences and National Research Council (1996) determined that inquiry-based learning should be leaded learners engaged by scientifically oriented questions, to have the ability to determine what data allows them to develop scientific explanations, to have students' ability to formulate their own explanations from obtained evidence, can expand their findings and relate those findings to similar situations, and be able to communicate their findings to others in class, to present at the entire class, or written laboratory reports. The inquiry-based learning can lead students open their windows of opportunities to explore and understand about natural world by themselves.

Traditional science classrooms are teacher centered with demonstrations and lectures, while inquiry-based classrooms are supported by the learners' real world experiences. (Colburn, 2007a). Also, traditional science instructional strategies limit the creativity of both students and teachers. As a result, science teachers need to employ alternative instructional and assessment strategies to improve student achievement (Ellis, 2001). Inquiry-based learning provides teachers with a way of assisting their students in the association of theories taught in the classroom with laboratory experiences. It is a realistic method of instructing science which allows students to establish connections between prior knowledge and scientific descriptions of the world when compared with traditional methods (Clymer and William, 2007). This study aims to (i) investigate effective teaching criterion through inquiry-based teaching at 80/80, (ii) find out effectiveness index of inquiry-based teaching, (iii) compare analytical thinking between before and after students had learned by inquiry-based learning activities, and (iv) study learning satisfaction of second grade students after they had learned through inquiry method. The results of study can engage students in terms of both cognitive, analytical thinking, and learning satisfaction.

2. Materials and Methods

Participants: The participants of this study were ten second grade students, sampled by purposive sampling. They were studying in second semester, academic year 2008.

Research tools: Four types of research tools were created and employed: 16-hour inquiry-based learning lesson plan, 20-item achievement test, 20-item analytical thinking test, and 15-item leaning satisfaction on inquiry-based learning. The details of research tools construction were provided here.

1). inquiry-based learning lesson plan: researchers constructed learning activities based on inquiry and science education standards. Eight lesson plan, 16-hour learning activities were developed. Then, 3 experts seek a validity of lesson plan and provide suggestion delicately. Pilot study was allowed to conduct with 30 students of second grade students. Finally, the lesson plan was approved and prepared for experimentation.

2). Achievement test: researchers constructed 3-choice of 30-item achievement test. Then, 3 experts seek a validity of test. The index of congruency was calculated, its range was 0.67-1.00. Then, pilot study was allowed to conduct with 30 students of second grade students. The researchers selected 20 items which difficulty was .20-.80 and discrimination value (B) was 0.33-0.86. Reliability was also calculated and reported 0.88. Finally, achievement test was approved and prepared for experimentation in respectively.

3). Analytical thinking test: researchers constructed 3-choice of 30-item achievement test. Then, 3 experts seek a validity of test. The index of congruency was calculated, its range was 0.67-1.00. Then, pilot study was allowed to conduct with 30 students of second grade students. The researchers selected 20 items which difficulty was .27-.39 and discrimination value (r) was 0.24-0.40. Reliability (KR-20) was also calculated and reported 0.84. Finally, test was approved and prepared for experimentation in respectively.

4). Learning satisfaction questionnaire: researchers studied theories related learning satisfaction, 3-level of 20-item Likert scale was developed. Then, 3 experts seek a validity of test. The index of congruency was calculated, its range was 0.67-1.00. Then, pilot study was allowed to conduct with 30 students of second grade students. The researchers selected 15 items which discrimination value (r_{xy}) was 0.85-0.87. Reliability (Cronbach alpha coefficient) was also calculated and reported 0.87. Finally, questionnaire was approved and prepared for experimentation in respectively.

Procedure: In the research, one group pretest-posttest design was employed. Researchers clarified a purpose of this research for data collective cooperation with participants. Pretest is conducted, during 16 hours inquiry-based learning activities, researchers collected data to seek effective teaching criterion level of inquiry-based learning activities. Finally, posttest is followed. Data of cognitive and analytical thinking development were analyzed by Wilcoxon Matched Pairs Signed-Ranks Test.

Then, students response their learning satisfaction to this approach, the data have been defined and interpreted. The level of satisfaction to be consider with Likert's three-point rating scale. Each respondent is asked to rate each item on some response scale. They could rate each item on a 1-3 response scale where; 3 = agree, 2 = undecided, and 1 = disagree. Data were analyzed by mean and standard deviation.

Finally, the researcher analyzed collected data by using a computer program, checked the completeness of the data and then obtained data from responses to the questionnaire. Data were recorded; statistic values were calculated and interpreted by using the criteria as below:

Mean	Interpretation
2.50-3.00	High
1.50-2.49	Medium
1.00-1.49	Low

3. Results

3.1 Effective teaching criterion of inquiry-based teaching

Performance score of activities were measured during inquiry-based classroom, eight lesson plans were conducted and data were collected. Effective teaching criterion of process (E_1) was 84.46 and effective teaching criterion of outcome (E_2) was 82.50. It can be showed that the effective teaching criterion of inquiry based teaching for second grade students was 84.46/82.50 (see Table 1).

3.2 Effective index of Inquiry-based learning

This study applies the Effectiveness Index (E.I.) methodology, developed to measure students' cognitive development. This method is for measuring change has been used in educational research by Hovland *et.al.*, (1949). It can measure involves comparing the actual change in a given outcome from baseline (P1) to follow-up (P2) to potential change (100-P1). The E.I. is thus computed as follows:

$$E.I. = [(P2-P1) / (100 - P1)] * 100$$

The numerator represents actual change, while the denominator represents the maximum change that could occur. The E.I. is useful in comparing program effects in two groups of similar size and with similar baseline prevalence of a desired program outcome, in which a larger EI suggests a larger program effect. Data were interpreted and calculated, It can be considered at 0.5205 (see Table 2).

3.3 Analytical thinking of second grade students

Researchers analyzed analytical thinking of second grade students who had learned through inquiry-based learning activities by Wilcoxon Matched Pairs Signed-Ranks Test (see Table 3). It can be summarized that posttest score had higher score than those pretest at .05 statistical significance level.

3.4 Learning satisfaction on inquiry-based learning

Respondents were asked to rate their satisfaction with various aspects of their feelings. Levels of learning satisfaction were recorded across a range of indicators. Respondents were all satisfied with the level of learning activities through inquiry-based learning at high level ($\bar{X} = 2.69$) (see Table 4).

4. Discussion

The findings of this study can be discussed that effective teaching criterion for second grade students was 84.46/82.50. It seems to study that students had 84.46 percent of performance score and 82.50 percent of posttest score. It means that students can build new understanding through interactions with their environment. The cognitive aspects of students' experiences are schemas, these schemas are described as models from which students can infer and evaluate phenomena using prior knowledge (Piaget. 1970). The effectiveness index was 0.5205, students can gain their knowledge and experiences 52.05 percent of scientific conception after learned by inquiry method. It can be used and implied for science education in terms of teachers' teaching preparation. Teachers need to understand that these schemas include misconceptions of scientific concepts as well as accurate understanding. Student learning as construction based on explorations and interactions with peers and the environment. Based on learning theory, dynamic process is result from interactions with both individuals and the environment, intelligence as a creation from prior knowledge and new

understandings, and cognitive growth as autonomous which includes both social settings and the physical environment of the learning.

When science teachers implement inquiry-based methods, they need to take a cognitive approach to instruction (Colburn, 2007a). Science teachers should use constructivist approach as the basis for understanding inquiry-based methodology in which it is the way of understanding how we know information (Llewellyn, 2002). It can be understandable that students' prior knowledge and experiences are grown. Science classroom is also included students' experiences. Science teachers should address when establishing this type of learning environment, need to develop an understanding of the way in which students learn. In addition, science teachers should understand that constructivist theory can provide meaning to teaching and learning by beginning lessons with what students know and understand.

The result of analytical thinking comparison between pretest and posttest score can be considered that posttest score had higher than those pretest score at .05 statistical significance level. Mean score of pretest was 11.50 while posttest score was 15.80. Inquiry-based learning can improve students' analytical thinking by engaging students in science classrooms and laboratories (Colburn, 2007b). Science teachers need to promote the use of inquiry-based learning in order to show students the learning process and to develop each student's sense of curiosity. It helps students construct knowledge through real world problem-solving based on information gained during experimentation (Krajcik *et al.*, 2000; Zion and Sadeh, 2007). Also, inquiry involves the creation of a constructivist learning environment.

Science teachers must facilitate learning rather than dissimilating learning. They should be accomplished by providing support, encouraging discussions among students, challenging students to guide and fully participate in students' learning, and promoting openness in students for new ideas. Also, science teachers need to cultivate a learning environment that allows students to engage in inquiry. This is accomplished by providing the necessary time for inquiry, establishing an inquiry learning environment, and supplying the essential materials and resources for inquiry.

According to Colburn (2007b) and Llewellyn (2005), inquiry is a 5E process involving engagement, exploration, explanation, elaboration, and evaluation. During engagement phase, science teachers set stage for inquiry-based learning by hooking attention the students with inquiring mind. Exploration phase, science teachers incorporate inquiry-based laboratories and activities that include questions, hypotheses, cooperative interactions with other peers, and data collection. Explanation phase, inquiry students need to articulate their thoughts and experiences while constructing new meanings. Elaboration phase, the students should reinforce science concepts by expanding the data to real world experiences which will lead to additional inquiries. During the last phase, evaluation, students need to summarize relationships using higher order questions to make judgments, analyses, and evaluations of prior and newly attained knowledge.

Students need to include some the key aspects of inquiry-based classroom, new knowledge is incorporated through sensory stimuli by incorporating students' current and prior understandings. Students will be engaged and express their feeling how learning environment will be incorporated. They are continuously building and rebuilding understanding, need to reflect on their knowledge and experiences as well. Inquiry-based learning is a practical method for establishing the connections between prior knowledge and scientific descriptions of natural world. They should be provided with opportunities to appreciate and understand various forms of scientific inquiry.

5. Conclusion

The results of this study can be concluded that inquiry-based learning promote cognitive and analytical thinking developments, also learning satisfaction of second grade students were responded at high level. Teachers should play varied roles in supporting students' development of inquiry skills.

References

- American Association for the Advancement of Science. (1993). *Benchmarks for Scientific Literacy*. Oxford: Oxford University Press.
- Bell, R.L., and Lederman, N.G. (2003). Understanding of the Nature of Science and Decision Making on Science and Technology based Issues. *Science Education*, 87, 352-377.
- Clymer, J.B. and Wiliam, D. (2007). Improving the Way we grade Science: Standards based Grading Systems can improve how we communicate Learning Expectations to Students. *Educational Leadership*, 63(4), 36-42.
- Colburn, A. (2007a). Constructivism and Conceptual Change, part I. *Science Teacher*, 74(7), 10.
- Colburn, A. (2007b). Constructivism and Conceptual Change, part II. *Science Teacher*, 74(8), 14.
- Cuevas, P., Lee, O., Hart, J. and Deaktor, R. (2005). Improving Science Inquiry with Elementary Students of Diverse Backgrounds. *Journal of Research in Science Teaching*, 42(3): 337-357.
- Dewey, J. (1938). *Experience and Education*. New York: Collier Books.

- Ellis, A.K. (2001). *Teaching, Learning, & Assessment Together: The reflective Classroom*. New York: Eye On Education.
- Hovland, C.I. (1949). *Experiments in Mass Communication*. In Arthur Lumsdaine and F.D. Sheffield (eds.), New York: John Wiley and Sons.
- Krajcik, J., Marx, R., Blumenfeld, P., Soloway, E., and Fishman, B. (2000). *Inquiry based Science supported by Technology: Success among Urban Middle School Students* (Report No. SE-063-702). Ann Arbor, MI: University of Michigan. (ERIC Document Reproduction Service No. Ed443676).
- Krajcik, J.S., Blumenfeld, P., Marx, R.W., Bass, K., Fredricks, J., and Soloway, E. (1998). First Attempts at Inquiry Strategies in Middle School, Project-based Science Classrooms. *Journal of the Learning Sciences*, 7, 313–350.
- Llewellyn, D. (2002). *Inquire within: Implementing Inquiry-based Science Standards*. California: Corwin Press.
- Llewellyn, D. (2005). *Teaching High School Science through Inquiry: A Case Study Approach*. California: Corwin Press.
- Marx, R.W., Blumenfeld, P.C., Krajcik, J.S., Fishman, B., Soloway, E., Geier, R., and Tal, R.T. (2004). Inquiry-Based Science in the Middle Grades: Assessment of Learning in Urban Systemic Reform. *Journal of Research in Science Teaching*, 41 (10): 1063–1080.
- National Research Council. (1996). *National Science Education Standards*. Washington, DC: National Academy Press.
- Piaget, J. (1970). *The Science of Education and the Psychology of the Child*. New York: Orion.
- Yoshina, J.M. and Harada, V.H. (2007). Involving Students in Learning through Rubrics. *Library Media Connection*, 25(5): 10-14.
- Zion, M. and Sadeh, I. (2007). Curiosity and Open Inquiry Learning. *Journal of Biological Education*, 41(4): 162-168.

Table 1. Showing score to calculate effective teaching criterion of inquiry-based classroom

No.	Lesson Plan 1 (30)	Lesson Plan 2 (30)	Lesson Plan 3 (30)	Lesson Plan 4 (30)	Lesson Plan 5 (30)	Lesson Plan 6 (30)	Lesson Plan 7 (30)	Lesson Plan 8 (30)	Formative score (240)	Pre-test (20)	Post-test (20)
1	26	25	25	25	25	25	24	25	200	11	15
2	25	25	24	26	25	26	25	25	201	12	16
3	26	24	25	25	24	25	25	25	200	13	16
4	24	26	27	24	26	26	25	25	203	12	17
5	26	26	25	24	25	25	26	25	202	14	16
6	25	26	25	26	25	25	27	25	203	12	18
7	26	24	26	25	25	26	25	24	201	12	15
8	25	25	25	27	25	25	26	26	204	12	17
9	26	25	26	26	25	25	26	26	205	14	17
10	27	26	25	25	27	26	25	26	207	15	18
Total	256	252	253	253	252	254	254	253	2027	127.00	165.00
Mean	25.60	25.20	25.30	25.30	25.20	25.40	25.40	25.30	25.34	12.70	16.50
S.D.	0.84	0.79	0.82	0.95	0.79	0.52	0.84	0.67	2.31	1.25	1.08
%	85.33	84.00	84.33	84.33	84.00	84.67	84.67	84.33	84.46		82.50

Table 2. Effective index of inquiry-based classroom

Summation between student multiplication and total score	Pretest score	Posttest score	E.I.
200	127	165	0.5205

Table 3. Comparisons of analytical thinking score between pretest and posttest

Variable	X	S.D.	Z	Asymp.Sig (2-tailed)
Analytical thinking	Pretest	11.50	2.816	0.0025
	Posttest	15.80		

Table 4. Students' learning satisfaction on inquiry-based teaching

Item	\bar{x}	S.D.	Level of response
I like to have teaching and learning activities based on inquiry	2.90	0.32	High
I prefer to do science with friends	2.80	0.42	High
I happy and proud with my learning outcomes	2.80	0.42	High
I feel better to have social acceptance when I do group work	2.70	0.48	High
I like to have learning participation and solve the problem with group	2.70	0.48	High
I like to have hands-on activities	2.60	0.52	High
I feel better when group members assigned me	2.50	0.53	High
I prefer, this activity allows me to do all step of assignment	2.60	0.52	High
I prefer to plan with others	2.50	0.53	High
I prefer to have assignment matching with student's aptitude	2.70	0.48	High
I like to have working studies	2.60	0.52	High
I feel good when I have to think and discuss with others	2.80	0.42	High
I like to investigate new information by employing constructivist theory	2.60	0.52	High
I feel good to inquire knowledge by self	2.80	0.42	High
I prefer learning activities that allow group investigation method	2.80	0.42	High
Total	2.69	0.47	High



The Relationship between Motivational Intensity and Achievement: Implications for the Learning of English by Chinese Students⁰

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Abstract

The correlation between motivational intensity and language learning has been explored to gain insights into why the learning of English has been poor in China. Hitherto, the learning of English as a foreign language in China has been taken for granted; unless effort is expended a measure of motivational intensity failure ensues. Success will only be achieved if learners understand the importance of learning English.

Keywords: Motivation, Intensity, Effort, Commitment, Achievement

1. Introductory comment

The fact that essentially all people learn to speak their native language without difficulty but most have difficulties in learning a second language has intrigued researchers for some time. Factors which impact on the acquisition of a second language will be considered in this paper.

2. Ability or motivation

Aptitude, intelligence and ability have been used synonymously and were the focus of research designed to understand learning achievement between the 1920s and 1950s. Over this period, research in this area was dominated by the studies of Gardner and Lambert (1959, 1972) and Gardner (1985). They queried the importance of language learning ability or aptitude for language learning, given that people have no difficulty in learning to speak their native tongue; instead they raised the importance of motivation on the part of the learner and argued that motivation was a better predictor of the success of language learners. Later, Dörnyei (2001) highlighted the importance of effort on the part of the language learner, noting that in the classroom all have an equal chance to succeed in learning language and those who are successful expend effort in doing so. He also noted there was a potential negative side to emphasize language aptitude.

Further evidence for the importance of effort in achieving success in language learning was obtained by Hufton *et al.* (2002) who interviewed students aged 15 years from the United States of America, England and Russia. They found

that the English and American students attributed success in language learning more to effort than ability and whereas the Russian students rated ability more highly, their concept of ability appeared to include a higher degree of effort. The researchers explained that the Russian students expended a great deal of effort in their learning and natural talent was the factor which distinguished the very top students from their peers.

2.1 Motivation

Pintrich and Schunk (1996) noted that the term motivation is derived from the Latin verb '*movere*' (to move); in short, motivation is connected strongly with effort and actions. The term has a distinct meaning in the context of learning a second language as discussed below.

Gardner (1985) considered that motivation has three components, notably: "desire to achieve a goal"; "attitude"; and "effort". He provided a simple but vivid description of motivation by pointing out that whilst many people desire to be millionaires, this goal is not achieved without expenditure of effort to achieve the goal. Clearly, whilst there may be interest in achieving an outcome there remains a need for action to realize the goal and effort should be expended in taking that action.

Motivation might exist in forms such as intensive mental activity. Given this, it is appropriate to consider that 'thinking and wishing' constitute the expenditure of effort. Indeed, many would-be-millionaires are thinkers not action takers.

Weinstein *et al.* (2000) provided similar features for motivation. In their terms, motivation has the key features of being: "goal directed"; "intentionally invoked"; and "effort demanding". Similarly, Dörnyei and Otto (1998) noted that people may have a variety of wishes, hopes and desires which remain "day dreams" unless the people are motivated to convert the dreams into realities. Dörnyei (2001) later described how desires are converted into goals then into intentions before accomplishment of the goal and finally the achievement is evaluated.

In the context of learning a language, motivation involves demonstrable learning activity accompanied by effort to attain the goal of learning the language. In the absence of these actions learning will remain a wish or desire. This process of transforming the desire into reality has been described as motivational intensity (Gardner, 1985) – see below.

2.2 Motivational intensity and language learning

Krashen (1976) pointed out that success in learning a second language requires more than long-term exposure; instead active involvement is necessary. More recently, Pintrich and Schunk (1996) considered that persistence is a common measure of motivation and Zhu (2002) claimed that persistence is crucial for success in learning a foreign language and further commented that the learner should be courageous and determined in order to be successful. Previously, Zhang (2000) had noted that confidence underpins determination and once confidence is established active participation in learning a foreign language will occur and perseverance will be followed by successful achievement.

These observations of Zhang (2000) and Zhu (2002) on perseverance and determination in learning a foreign language are consistent with the practices used for the learning of English in China. As had been noted by Schunk, (1991), motivation can influence what, when and how learning occurs. In China, high learning achievement generally is attributed to diligence and hard work which are synonymous terms in Chinese (Yang, 2004). The belief, in China, that academic performance is influenced principally by hard work has been demonstrated by Hau, and Salili (1996) and Hou (2004).

Deci and Ryan (1985), in proposing the self-determination theory, noted that an individual displays intrinsic motivation when engagement in a task occurs primarily because it is an enjoyable or fulfilling activity. 'Engagement' is taken to be the intrinsic attraction an individual exhibits as well as the commitment. In contrast, extrinsic motivation occurs when the individual undertakes a task to gain an award or to avoid punishment. For example a child who works hard on a school project because it is considered to be interesting is regarded as being intrinsically motivated whereas a student who studies hard because of the prospect of a reward for achieving high marks (grade) is considered to be extrinsically motivated.

In considering motivational intensity, the different types of motivation should be considered. Gardner and Lambert (1959, 1972) and Gardner (1985) focussed on integrative motivation, apparently considering that it was a strong indicator of learning success. Even so, they did not overlook the importance of effort which equates to intensity. They considered integrative motivation to be the interaction with and willingness to use the language being learnt. In other words, learners were expected to experience intense communication with native users of the language.

From the above, persistence and determination are key determinants of success in learning a second language. Learning a second language is different from learning other skills and learners need to maintain a steady pace in their learning. Persistence is important not only because learners will encounter unfamiliar and even challenging situations; they will not always achieve immediate success. Those who demonstrate persistence and determination will overcome difficulties they face in the short term but also in the long run and ultimately will be successful.

2.3 Goal Oriented Theory

It is equally important to discuss goal oriented theory. Over the past two decades goal orientation theory has become increasingly influential and it is now one of the most important perspectives in motivation for achievement (Patrick, 2004; Urdan, 2004). As pointed out by Molden and Dweck (2000), examination of the goals set by individuals may enable a greater insight to be gained of the different views on the means of achievement, the reasons for success or failure and the importance to the individual of achieving goals set. Whilst it is usual to place emphases on goals set in athletic and work environments it is equally valid to measure goals in learning environments (Alderman, 1999).

Oxford and Shearin (1994) observed that the setting of goals can be of considerable importance in terms of stimulating motivation for the learning of a second language because many major goals are long-term; for example, completing a degree or obtaining a good job. Students who engage in a task, expend effort and persist are more likely to achieve at a high level than those who do not (Pintrich and Schrauben, 1992; Schunk, 1991). Elliot *et al.* (2005) considered that 'attribution theory' has highlighted the importance of effort for achievement and concluded that in both Western and Eastern cultures hard work is considered widely to be morally desirable and the key to successful achievement.

As mentioned above, Dörnyei (2001) described the process by which wishes or desires are transformed into goals then converted to intentions which ultimately are enacted leading to achievement, or otherwise, of the goal. The final step is the evaluation of the achievement. Later, Dörnyei (2005) identified motivation, in the context of acquiring a second language, as comprising three stages which he listed as , the 'pre-actional', 'actional' and 'post-actional' stages and effort was the key to achievement. Action requires effort and this constitutes motivational intensity. In expressing this view, Dörnyei (2005) provided a more direct theory than that proposed by Gardner (1985) who considered attitude to be of key importance; Dörnyei (2005) did not.

Motivation requires activity, either physical or mental or more likely both. Physical activity entails effort, persistence and other overt actions whereas mental activity includes such cognitive actions as planning, rehearsing, organizing, monitoring, making decisions, solving problems and assessing progress. Students engage in activities with the view to attaining goals (Pintrich and Schunk, 1996) and those who choose to engage in a task, expend effort and persist are likely to achieve at a higher level than those who do not (Schunk, 1991)

Hidi (2000) suggested that where activities are complex and of lengthy duration it may be necessary to have a combination of intrinsically appealing components as well as extrinsic rewards to maintain the engagement of students. This is because a single source such as intrinsic motivation may be exhausted when students progress from one level to the next. Care needs to be exercised when considering how strong intrinsic motivation will be in a context such as China where English is not a communicating tool in social life. Therefore, extrinsic factors may be important for facilitating the learning process and ultimately achievement. This is likely to be the case for the learning of a second language.

2.4 The relationship between motivational intensity and achievement in the Chinese context

Due to the teachings of Confucious, Chinese people place considerable emphasis on the malleability of humans. They believe that achievement is possible if they work hard, regardless of their current level of ability. Whilst not denying the existence of differences in innate levels of ability the differences are de-emphasized. Instead, innate ability is considered to be a determinant of the rate of attainment and effort is considered to be the key factor for ultimate level of achievement (Chen *et al.*, 1996).

In China, children are reared in an environment where effort, endurance and hard work are emphasized (Yang, 1986). They are taught to work hard even when the probability of success is very low. There are many Chinese proverbs alluding to the benefits of hard work; for example: "if one keeps on grinding one can turn an iron pillar into a needle"; and "if one has the perseverance one can even remove a hill, (the symbolic obstacle) by carrying away the sand with baskets" - see Chen *et al.* (1996). It is not difficult to appreciate how it is that diligence is a highly regarded trait in people in China. The intensity and effort expended here in accomplishing a task is considered to be similar to the 'actional' and commitment features of motivation discussed above. These cultural characteristics are commonly shared in Confucian China.

A similar view prevails in Japan as pointed out by Hess and Azuma (1991) who noted that Japanese students display diligence and receptiveness which contrasts with the more familiar concepts of intrinsic and extrinsic motivation which prevail in the United States of America, and elsewhere in the Western World. Indeed, Hess and Azuma (1991) considered that Western students lack the sense of diligence observed in Asian students and need to be motivated extrinsically to increase the attraction of tasks and the classroom. This is not necessary in the Asian classroom where students are expected to work hard to achieve the learning goals set for them.

The reason why so much effort is invested in education in China is the high status which derives from education. In traditional thinking, children are taught that all jobs, except learning, have a low status (Hau *et al.*, 1996). Education is

believed to be important not so much from the aspect of social hierarchy but because it leads to better development of the whole person (Ho, 1981; Mordkowitz and Ginsburg, 1987).

Many writers have drawn attention to the Asian belief that success stems from effort rather than ability whereas Westerners consider that ability is the key to success and failure is due to a lack of ability (Holloway, 1988; Hess and Azuma, 1991; Chen *et al.*, 1996). Hau and Salili, (1996) reported that students at secondary school in Hong Kong considered that their academic success was due to the following factors, in order, of importance; effort; interest in study; study skill; mood and finally ability. It is possible to exert some control over the first four of these factors, but not ability which is regarded by Western students to be the most important factor. It is noteworthy that Clifford (1986) pointed out that strategy attributions such as study skills can be valuable for redeeming poor performance.

Chinese parents strongly emphasize to their children that hard work will lead to the development of interest and study skills which in turn result in the cultivation of interest and subsequently improvement of ability. Thus, in the minds of Chinese parents, interest and ability are equally controlled, just as study skills and effort are. This is quite different to Western thinking where individualism is stressed and it is thought that interest should come naturally (see Hau and Salili (1996).

Chinese students are taught to be responsible for their own academic performances; it is considered that failure stems from laziness and success follows hard work (see Hau and Salili 1996). Students who are academically motivated believe that if they study diligently they will attain good grades (marks). Given that they value high grades, they are likely to study hard and in so doing confirm their expectations (see Pintrich *et al.*, 1996).

The belief in China that effort is critical for learning success derives from the high degree of involvement of parents and other family members in the learning of the students. Parents set high standards for their children and commit considerable time to the supervision and provision of assistance with the school work of their children (Yang, 2004). The students are encouraged to learn by drill ('rote learning') because of the belief that interest in study, which may be totally lacking initially, will be developed through repetitive work (Hau *et al.*, 1996).

2.5 Concluding Comments

Learners of a second language will not be successful unless they are motivated and display motivational intensity. Motivation may occur intrinsically but it is more likely that extrinsic motivation precedes this. Persistence and determination are important characteristics for success in learning a language. Learners of a second language become exposed to a culture with which they are not familiar, so they need to be persistent, not only because they will be exposed to different, even challenging situations (as noted above), but because many will fail to learn the language. As note by Naiman *et al.* (1978), high achieving language learners are not necessarily those for whom language is acquired very easily; instead they have persevered overcoming difficulties and frustration and after trial and error attain a satisfactory level of achievement.

In China, whilst there is a belief that hard work is the key to success in achieving a set task (for example learning of a second language), motivation for undertaking the task often is lacking or poor. Given this it will be necessary to devise procedures for motivating students if success is to occur in the teaching and learning of English language. Once students have the wish to learn (*viz.* motivation) there is the need to take action to achieve the desired outcome. Given the prevailing culture for hard work in China the latter is expected to occur. This achievement will not be made if actional intensity is absent.

It is important to develop and nurture interest in learning English because ultimately the English language will be crucial for the Chinese people. English learners should be aware of why it is important to learn English; in particular the benefits they will derive from learning the language. Although the inability to use English language prevents many people from achieving many things, this often is not clear to students of the language. An awareness of the importance of English language is the starting point for motivation to learn the language.

References

- Alderman, M. K. (1999). *Motivation for achievement: Possibilities for teaching and learning*. Mahwah, NJ: Lawrence Erlbaum.
- Chen, C. S., Lee, S. Y., & Stevenson, H. W. (1996). Academic achievement and motivation of Chinese students. In Lau, S. (Ed.), *Growing up the Chinese way: Chinese child and adolescent development* (pp: 69-91). Hong Kong: The Chinese University Press.
- Clifford, M. M. (1986). The comparative effects of strategy and effort attributions. *British Journal of Educational Psychology*, 56, 75-83.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behaviour*. New York: Plenum.

- Dörnyei, Z. (2001). *Motivational strategies in the language classroom*. Cambridge: Cambridge University Press.
- Dörnyei, Z. (2005). *The psychology of the language learner: individual differences in second language acquisition*. New Jersey: Lawrence Erlbaum Associates, Inc., Publishers.
- Dörnyei, Z., & Otto, I. (1998). Motivation in action: A process model of L2 motivation. Working Papers in Applied Linguistics, (Thames Valley University, London). [Online] Available: http://eprints.nottingham.ac.uk/archieve/000000/Motivation_in_action.pdf
- Elliott, J. G., Hufton, N. R., Willis, W. & Illushin, L. (2005). *Motivation, engagement and educational performance: International perspectives on the contexts for learning*. New York: Palgrave Macmillan.
- Gardner, R. C. (1985). *Social psychology and language learning: The role of attitudes and motivation*. London, Ontario: Edward Arnold.
- Gardner, R. C., & Lambert, W. E. (1959). Motivational variables in second language acquisition. *Canadian Journal of Psychology*, 13, 266-272.
- Gardner, R. C., & Lambert, W. E. (1972). *Attitudes and motivation in second - language learning*. Rowley, Massachusetts: Newbury House Publishers.
- Hau, K. T., & Salili, F. (1996). Achievement goals and causal attributions of Chinese students. In Lau, S. (Ed.), *Growing up the Chinese way: Chinese child and adolescent development* (pp:121-145). Hong Kong: The Chinese University Press.
- Hess, R. D., & Azuma, M. (1991). Culture support for schooling: Contrasts between Japan and the United States. *Educational Researcher*, 20 (9):2-8.
- Hidi, S. (2000). An interest researcher's perspective: The effects of extrinsic and intrinsic factors on motivation. In C. Sansone and J. M. Harachiewicz (Eds.), *Intrinsic and extrinsic motivation: The search for optimal motivation and performance*. New York: Academic Press.
- Ho, D. Y. F. (1981). Traditional patterns of socialization in Chinese society. *Acta Psychologica Taiwanica*, 23 (2): 81-95.
- Holloway, S. D. (1988). Concepts of ability and effort in Japan and the US. *Review of Educational Research*, 58: 327-345.
- Hou, L. P. (2004). Emphasizing students' emotion to improve their English learning. *Foreign Language Teaching in Schools*, 3 (165), 35-37.
- Hufton, N. R., Elliott, J. G., & Illushin, L. (2002). Educational motivation and engagement: Qualitative accounts from three countries. *British Educational Research Journal*, 28, 265-289.
- Krashen, S. D. (1976). Formal and informal linguistic environments in language learning and language acquisition. *TESOL Quarterly*, 10, 157-168.
- Molden, D. C., & Dweck, C. S. (2000). Meaning and motivation. In C. Sansone & J. M. Harachiewicz (Eds.), *Intrinsic and extrinsic motivation: The search for optimal motivation and performance*. New York: Academic Press.
- Mordkowitz, E. R., & Ginsburg, H. P. (1987). Early academic socialization of successful Asian-American college students. *The Quarterly Newsletter of the Laboratory of Comparative Human Cognition*, 9 (2): 85-91.
- Oxford, R., & Shearin, J. (1994). Language learning motivation: expanding the theoretical framework. *The Modern Language Journal*, 78, 12-28.
- Patrick, H. (2004). Re-examing classroom mastery goal structure. In P. R. Pintrich & M. L. Maehr (Eds.), *Motivating students, improving schools: The legacy of carol midgley*. London: Elsevier.
- Pintrich, P. R., & Schunk, D. H. (1996). *Motivation in Education*. NJ: Prentice-Hall, Inc. A Simon & Schuster Company, Englewood Cliffs.
- Pintrich, P. R., & Schunk, D. H. (1996). *Motivation in Education*. NJ: Prentice-Hall, Inc. A Simon & Schuster Company, Englewood Cliffs.
- Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist*, 26, 207-231.
- Urdu, T. (2004). Can achievement goal theory guide school reform? In P. R. Pintrich & M. L. Maehr (Eds.), *Motivating students, improving schools: The legacy of carol midgley*. London: Elsevier.
- Weinstein, C. E., Husman, J., & Dierking, D. R. (2000). Self-regulation interventions with a focus on learning strategies. In M. Boekaerts, P. R. Pintrich, & M. Seidner (Eds.), *Handbook of self-regulation* (pp. 727-747). San Diego: Academic Press.

- Yang, K. S. (1982). Causal attributions of academic success and failure and their affective consequences. *Acta Psychologica Taiwanica*, 24 (2): 65-83.
- Yang, Y. B. (2004). *Characteristics of good English learners – urban key senior secondary school students learning English in Yunnan – China*. Unpublished MA thesis. Melbourne: La Trobe University.
- Zhang, Z. D. (2000). *Theories and schools of foreign language teaching methodology in China*. Beijing: Science Publishing Press.
- Zhu, C. (2002). *Psychology in foreign language teaching and learning*. Shanghai: Shanghai Foreign Language Education Press.



Commentary on Study of Contemporary Integrative Thinking

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Abstract

Contemporary integrative thinking is an important thinking way of current scientific development. It is continually developed with flourishing of holism, systematic science and complexity theory. It is far from enough the study of academic circles on its theoretical system, and an automatic condition exists in some aspects. This article is going to comment and analyze several important aspects in theoretical establishment of contemporary integrative thinking. Then the authors make clear study venation of the academic circles, and meanwhile, propose instructive opinions about the theoretical groundwork, scientific essence and practical application of contemporary integrative thinking.

Keywords: Integrative thinking, Contemporary integrative thinking, Scientific thinking way

1. Rise of study on contemporary integrative thinking

Integrative thinking is a brilliant thinking flower born in the earlier human society, and guides human beings in their creation of illustrious ancient civilization with its unique intelligent fascination. Under the direction of integrative thinking, it is necessary that people lay an eye on integrity in their way of understanding and controlling the world, and that they attach importance to synthesis. However, since its birth, the simplicity thinking of western modern science in the emphasis on analysis and regression and negligence on synthesis and integrity is leading in natural science, and has invaded the territory of human science several times. At the beginning of the 20th Century, establishment and development of the theory of relativity and quantum mechanics increasingly disclosed limitations of simplicity thinking, while the complexity science later was just proposed and developed on the basis of criticizing the simplicity thinking. Meanwhile, the latter also revealed the prologue of study on contemporary integrative thinking.

2. Status quo of study on contemporary integrative thinking

2.1 Study on the concept of contemporary integrative thinking

Contemporary integrative thinking, namely, is integrative thinking's brand-new pattern in the current situation. Although scholars in academic circles rarely apply the phrase of "contemporary integrative thinking", study achievements of the brand-new pattern of integrative thinking in the current situation are obvious.

There are approximately three viewpoints about this subject in academic circles. Firstly, contemporary integrative thinking is identified as a systematic thinking, such as "systematic thinking or integrative thinking is a fundamental way of contemporary scientific thinking." "To understand a system, it is necessary to lay an eye on the integrity, and to establish an integrative thinking way of the system, or a specific and integrative thinking way" etc. Scholars holding this viewpoint believe that, the task of general system theory is to scientifically explore "wholeness" and "integrity", and the core of systematic thinking is wholeness and integrity. Therefore, in order to bring into prominence this feature of systematic thinking, the two concepts of "integrative thinking" and "systematic thinking" are mixed together.

The second viewpoint is to attribute contemporary integrative thinking to one aspect within the framework of systematic thinking or complexity thinking, so as to endow it with a definite implication, namely, "integrative thinking is a thinking way which applies an integrative concept to recognize an object, to ponder over a matter and to sort out the thought." Integrative thinking starts from integrity, conducts comprehensive and overall thinking in the system, structure, level (part), function, organization, information, contact means, and external environment etc, and reveals and grasps the entire characteristics and overall rules of the system. In his study on complexity thinking, Peng Xinwu also points out characteristics of contemporary integrative thinking as a thinking perspective, namely, "to watch the world with an integrative view", "to directly resort to the wholeness, and to understand the wholeness by means of study on the property and structure of the wholeness", "understanding in wholeness of an object itself contains understanding in

part which constitutes the object”, “at the time when part of an object is understood through wholeness of the object, the wholeness can also be understood through its parts”, etc. All in all, according to this viewpoint, contemporary integrative thinking is to understand relation between factors and the system and environment in a dialectical and unified way, so as to further grasp the entire features of the system.

The third viewpoint is to attempt to study contemporary integrative thinking as an independent thinking way. Some scholars are committed to determining contemporary integrative thinking on the theoretical basis of systematic philosophy. They believe that, faced with complexity of current natural, human and global development, integrative concept, as a subordinate concept of the systematic concept, cannot adapt to changes in both theory and practice. Therefore, theoretical status of contemporary integrative thinking should be escalated, but its relation with systematic theory hasn't been clearly recognized. Besides, some scholars hold the view that contemporary integrative thinking is “a thinking framework and method based on contemporary spirit”, and so consider the systematic theory merely one aspect of the theoretical foundation. They generally point out that, contemporary integrative thinking has such characteristics as “systematicness”, “openness”, “unitarity”, and “predictability”, etc, and the soul of contemporary integrative thinking is the insight of overall importance, integrity, dialectures, sustainable existence and sustainable development. The key is to grasp the overall situation and wholeness in an authentic, specific and procedural way. This viewpoint provides broader field of vision for contemporary integrative thinking, but achievements of its study are rare.

2.2 Theoretical illustration of contemporary integrative thinking

2.2.1 Features of contemporary integrative thinking

There are various opinions on study on features of contemporary integrative thinking in academic circles. Which features on earth it has, whether it has a fundamental feature, and how these features can be expressed --- answers to these issues are difficult to get unified, but more or less certain consensus is exhibited.

Generally speaking, contemporary integrative thinking includes the following six features.

Firstly, the feature of overall importance of contemporary integrative thinking means that, when people perceive an object or phenomenon, they should regard it as a dialectical and unified “overall situation”, “system” and “entirety” of whole and parts. They should attempt to grasp all details as possible as they can, and then combine these details in an organic way so as to realize “scientific” cognition of its completeness. Just as Lenin said in his <<Note on Philosophy>>, we should not only focus on “decomposition” of all parts, but should grasp “sum of all these parts”. This has obviously highlighted the dialectical thinking of unity and oppositeness of whole and parts, and has overcome the big mistake in traditional thinking which merely concentrates on whole but ignores parts.

Secondly, interrelation feature of contemporary integrative thinking refers to that, as an object and phenomenon of the cognition target, its components are in a state of inseparable, non-linear and inconsecutive interaction. This kind of “interaction” is so inseparable that people cannot ignore it in their cognition. Otherwise, they have no means to obtain an integrative cognition in the objects. However, academic circles' understanding in this non-linear relation “inevitably stops over a conceptual, and even general or blurry level”. An in-depth cognition is not only a philosophical issue, but more with a property of “specific analysis for specific problem”.

Thirdly, nondeterminacy of contemporary integrative thinking refers to that, it is impossible to have an accurate and purely objective cognition in the object and phenomenon, so only a probability or statistical description is possible. Theoretical foundation of nondeterminacy of contemporary integrative thinking derives from the “demarcation of subject and object” in quantum mechanics. Heisenberg believes that in the observation process of quantum, because physical links between boundaries of observed system and measuring apparatus can be described without ambiguity, quantum mechanics law only indicates the statistical property nearby the boundary. Possibility of statistical internal links is merely caused by uncontrollable interference of regarding effect of measuring apparatus on observed system as part. He takes the example of photographic quantum theory of Wilson cloud chamber, and believes that, “here we immediately encounter the randomness in the observation concept already mentioned, that is, to classify ionized molecules into the observed system or to regard them as observation apparatus, this is purely a matter of convenience”. Therefore, quantum mechanics can only make a probability description of a single object.

Fourthly, openness of contemporary integrative thinking means that, when people recognize an object and phenomenon, they should not only grasp its internal components and interrelation, but should not ignore its external environment, because internal and external combination can achieve integrative cognition. According to system theory, the entire world is a grand system constituted by interactional things on earth. Not only exchange and communication of substance, energy and information exist among factors within a single object, but also this object communicates with its external environment, so as to maintain a dynamic balance as a whole.

Fifthly, predictability of contemporary integrative thinking means that, when people cognize an object and phenomenon, they should attempt to make definite prediction on its changes in the nearest future based on what they know. This feature comes from the basic need of people to try to cognize the world and transform it, and is targeted at dynamic

chanciness that is difficult to grasp in the cognitive process. The nondeterminacy aforementioned has resulted in bankruptcy of absolute determinism, and chanciness and randomness occurrences in the natural and human society have been pulled back from the borderland of scientific research. In face with so much chanciness and randomness, people have, for a time, suspected whether causal connection in classical science still has its value. However, the future is not completely unpredictable. Otherwise, people have no way to make an action.

Sixthly, unitarity of contemporary integrative thinking means that, as the target of cognition, an object and phenomenon is not purely objective. They are essentially personalized natural kinds, and they are within the whole connection of the nature and human being who regards practice as an intermediary agent. Therefore, in the cognitive process, human being is not only a subject, but also an object. Furthermore, the practical character of scientific research is brought into prominence, so human being is not merely a “tool” of cognition, but also a purpose of cognition.

Among the above six features, it is generally believed that, overall importance is the fundamental feature of contemporary integrative thinking, and other features can be deduced based on this fundamental feature. Of course, some scholars focus more on its interrelation feature, and hold the view that it is a venation and “clue” which combines parts into a whole in an organic way, while thinking mode of modern mechanicalness reductionism ignores that point. Therefore, nonlinearity, the symbol of contemporary scientific thinking, is also an inference familiar to people for a long time.

2.2.2 Theoretical and practical significance of contemporary integrative thinking

Theoretical significance of contemporary integrative thinking is especially reflected in the fact that, as a primary scientific thinking mode, it continuously promotes research direction of scientific methodology and assessment towards a rational integration of science and humanity. Of course, as a renewed contemporary explanation of ancient integrative thinking which is an immemorial human wisdom flower, contemporary integrative thinking also exhibits inheritance, enrichment and promotion of civilized fruits of human thinking, and is helpful to initiate new civilization of human thinking in a new era.

Each progress of human beings' existence and development requires that they have a new thinking mode, and likewise, development of thinking mode affects their existence and development. It ought to be said that, in daily living, or in production practice and social and political practice, and especially in scientific and technical practice, integrative thinking will play an indispensable and significant role.

2.3 Application study on contemporary integrative thinking

Any thinking way has its intentionality in essence. As a scientific thinking mode in the new era, contemporary integrative thinking plays its powerful practical function once it is brought into birth. However, theoretical study on contemporary integrative thinking by academic circles is not systematic, and is often mixed with study on complexity thinking mode, so study on its application is seldom conducted.

Generally speaking, academic circles tend to carry out reflection of contemporary integrity on some macro issues, such as environmental protection, ecological problem, sustainable development, construction of harmonious society and development of human being, etc. <<Complexity Thinking and Social Development>> by Peng Xinwu is a representative works, in which he conducts a specific philosophical observation on relevant issues concerned with social development from the perspective of complexity thinking, and opens up people's field of vision. Several articles by Chen Lizhong on sustainable development, construction of harmonious society and scientific outlook on development are also typical contemporary integrative thinking. In his << All-round Development: the Integrate Category of Relationship between Human Beings and Society >>, Fu Zhiyong makes more attempts.

3. Prospects of study on contemporary integrative thinking

By analyzing achievements of study on current contemporary integrative thinking, we think that the following several issues are still open to be further studied.

3.1 To expand study on groundwork of contemporary integrative thinking theory

Scholars are usually confined to systematic science itself in their study on groundwork of contemporary integrative thinking theory. Even if some scholars transfer their field of vision to such theories as Post-modernism and Structuralism etc, most of them are limited to comparative study and analysis in these theories and integrative thinking, but haven't absorbed instructive ingredients of “others”, as a result of which further study is restricted.

With development of holism and complexity study, dialectical holism has become a significant issue in the front field of contemporary academic research. This kind of holism is a holism of scientific morphology of philosophy, which not only absorbs advantages and abrogates disadvantages of existing holism, but also comprehensively studies front achievements of modern science, new experiences of current social practices and basic historical experiences of scientific and cognitive history. It should be pointed out that, with advancement of study on dialectical holism, the theoretical groundwork of study on integrative thinking will be greatly enriched.

3.2 To further explore scientific essence of contemporary integrative thinking

Contemporary integrative thinking is not merely a simple development of ancient integrative thinking, and is not only more enriched in terms of its form and more precise in terms of its structure, but also a transformation in terms of essence. It is a product of deep reform of natural science theoretical paradigms, and is an outcome of deep integration of such transversal subjects as systematic science and complexity theory with Marxism's dialectical thinking. It concentrates on qualitative research, but not short of quantitative analysis, especially organic combination of these two methods. Therefore, in essence, it is a scientific thinking mode. Further grasp of the scientific essence of contemporary integrative thinking helps make clear direction of advance of its theoretical research, and helps avoid detours.

3.3 To strengthen study on application of contemporary integrative thinking in practice

Application of contemporary integrative thinking in practice is the ultimate goal of its study, and is also a powerful motive to check its truth and to break through itself. The recently developed STS, artificial intelligence research and complexity theory, as well as integrative phenomena in the society provide broad space for application of contemporary integrative thinking. Therefore, study by linking contemporary integrative thinking with these application fields can, on one hand, gets theoretical support from these fields, and can, on the other hand, enable contemporary integrative thinking to be practically supported, corrected and further improved in its application.

References

- Ervin Laszlo. (1998). *Introduction to Systems Philosophy*, translated by Qian, Zhaohua, et al. Beijing: Commercial Press, preface.
- Feng, Guorui. (2008). On Adhering to the Dialectical Holism. *Journal of Beijing Administrative College*, 6:96.
- Fu, Zhiyong. (2002). All-round Development: the Integrate Category of Relationship between Human Beings and Society. *Journal of Northwest University* (Philosophy and Social Sciences Edition), 3:87.
- Lenin. (1956). *Note on Philosophy*. Beijing: People's Publishing House, 239.
- Liu, Feng. (2001). An Outline of Systematic Thinking Mode. *Journal of Shanghai Jiaotong University* (Philosophy and Social Sciences), 4:13.
- Miao, Dongsheng. (2005). On Systematic Thoughts (Third). *Journal of Systemic Dialectics*, 1:1.
- Peng, Xinwu. (2003). On Complexity Research Way. *Journal of Systemic Dialectics*, 1:14-15.
- Qiao, Ruijin. (2000). On Nonlinear Dialectical Characteristics of Contemporary Integrative Thinking. *Journal of Systemic Dialectics*, 3:1.
- Wang, Tiansi. (1998). *Introduction to Micro Epistemology*. Nanchang: JiangXi People's Publishing House. 135, 297.
- Xia, Jianhua & Xu, Zheng. (2004). Systematic Explanation of Holism Idea. *Journal of Systemic Dialectics*, 2:25.
- Xing, Yuan. (1999). On Integrative Thinking and Sustainable Development. *Journal of Systemic Dialectics*, 2:9.
- Zhang, Zexing. (1995). *Scientific Development and Integrative Thinking Mode*. *Studies in Dialectics of Nature*, 11: Supplement.



Gender as a Moderator of the Relationship between Organizational Citizenship Behaviors and Team Effectiveness in China

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Abstract

The purpose of this study was to examine the relations between three domains of OCBs and team effectiveness, and to test for the moderating effects of gender on the relationship between OCBs and team effectiveness. A cross-sectional survey of 218 employees from 26 Chinese manufacturing companies showed that self, group, and organization domain OCBs were directly related to job satisfaction, group and organization domain OCBs were directly related to team performance. The results indicated that gender moderated the relationship between organization domain OCBs and job satisfaction, and this relationship was stronger for males than females. Implications for practice and directions for future research are discussed.

Keywords: Organizational citizenship behavior (OCB), Team effectiveness, Gender, China

1. Introduction

As working under changing circumstances becomes an essential feature of organizations (Lee, Dedrick, & Smith, 1991), organizations will necessarily become more dependent on individuals who are willing to contribute to successful change, regardless of formal job requirements. The nature, causes, and consequences of prosocial job satisfaction have been investigated frequently. Specifically, behaviors that exceed delineated role expectations but are important and even crucial for an organization's survival are defined as "organizational citizenship behavior" (OCB) which has been receiving a great deal of attention from organizational behavior researchers (Podsakoff, Mackenzie, Paine, & Bachrach, 2000; Katz & Kahn, 1996; Organ & Ryan, 1995; Organ, 1997; George & Bettenhausen, 1990) since Organ (1988) proposed that organizational citizenship behavior is related to individual and organization performance. Researches also show that these citizenship behaviors have a positive impact on increasing organization performance (Geroge & bettenhausen, 1990; Karambayya, 1990; MacKenzie, Podsakoff, & Fetter, 1991; Podsakof, Ahearne, & MacKenzie, 1997; Podsakoff & MacKenzie, 1994; Walz & Niehoff, 2000; Werner, 1994). OCB has been regarded as an important concept in that it is thought to contribute to effective functioning of the organization, and consequently, its competitiveness (Krlowicz & Lowery, 1996).

Although researchers have extensively studied OCB in the U.S. context, OCB measurement has received relatively limited attention in other contexts (Pascal, 2009), so understanding whether behavioral theories initiated in the United States are generalized to non-U.S. populations is critical to the effective management of global ventures (Hofstede, 1980). It is exciting to notice that the growth of OCB in a non-U.S. context is on the increase (e.g., O'Connell, Doverspike, & Hattrup, 2001; Menguc, 2000; Bierhoff et al., 2000; Turnipseed & Murkison, 2000). Especially, most of

them have applied the construct of OCB to Eastern cultures (e.g., Farh, Earley, & Lin, 1997; Farh, Podsakoff, & Organ, 1990; Yoon & Suh, 2003; Yen & Niehoff, 2004; Farh, Zhong & Organ, 2004; Lo, Ramayah, & Kueh, 2006). Yet of these studies, only Farh, Zhong & Organ (2004) first examined forms of OCB in the People's Republic of China (PRC). So it is important, then, to clarify whether employee behaviors that influence firm performance in U.S. have the same impact in other cultures.

The present study examines the relationships of OCBs and team effectiveness will be moderated by gender in the context of China. This replication was needed so that previous findings could be generalized beyond the United States. First, we examine the extent to which different domain OCBs are associated with team effectiveness. Second, we test for the moderating effects of gender on the relationship between different domain OCBs and team effectiveness.

2. Antecedents of Organizational Citizenship Behavior

2.1 OCBs in China

Most research on OCB has focused on individual antecedents. Research on OCB has benefited greatly from Organ's conceptualization of OCB was defined as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective function of the organization" (Organ, 1988); for example, helping coworkers, and keeping up with matters that affect the organization. According to Organ, OCBs have a variety of forms, including altruism, courtesy, sportsmanship, civic virtue, and conscientiousness. Podsakoff et al. (1990) first operationalized Organ's (1988) five dimensions. And in a thorough review of the OCB literature and other related constructs, Podsakoff et al. (2000) grouped the nearly 30 forms of potentially different behaviors into seven themes according to the type of behavior: helping behaviors, sportsmanship, organizational loyalty, organizational compliance, individual initiative, civic virtue, and self development.

Farh et al. (1997) developed a version of the OCB measure for the Chinese culture and translated it into the Mandarin language. The Chinese version included the dimensions of altruism, conscientiousness, and civic virtue, but replaced sportsmanship and courtesy with two dimensions more closely related to the Chinese culture. Interpersonal harmony was one of the new dimensions and was described as the avoidance of pursuing personal power and gain in the organization. The second new dimension was termed protecting company resources, which was defined as the avoidance of negative behaviors that abuse company policies and resources for personal use.

Another approach to classifying the construct domain focused on the target of the OCB (McNeely & Meglino, 1994; Skarlicki & Latham, 1996; Smech & Drach-Zahavy, 2000). Williams and Anderson (1991) designated two broad categories of OCB: OCBI, or behaviors that immediately benefit particular individuals; OCBO, or behaviors that benefit the organization as a whole. Using an inductive approach, Farh, Zhong, and Organ (2004) propose a concentric model to classify OCB in China suggest that it may be more fruitful to classify OCB based on foci or contexts of action, and divided them into four domains based on the focus or context of action: self, group, organization, and society. The self domain includes contributions that in principle could be rendered anonymously, privately, and purely as a matter of one's own volition, such as self-training, taking initiative, and keeping the workplace clean. The group domain includes those contributions that cannot be meaningfully or practically divorced from a context of interaction with peers, such as: Interpersonal harmony and helping coworkers. OCB with an organizational focus includes those contributions that must engage some organizationally relevant attribute, such as protecting and saving company resources, voice and group activity participation. The society focus subsumes those contributions that can be enacted only across the boundary of the organization or in its external environment with outside stakeholders, such as social welfare participation and protecting company image.

2.2 Team Effectiveness

OCB as the specific behavior of a team member can be understood as team process variables has a dynamic impact on the team effectiveness. Sundstrom, DeMeuse and Futrell (1990) thought that the effectiveness of team including team performance and feasibility. Performance is measure by the acceptability of the work team level when internal or external organizations receiving the products, services and information making by team; the feasibility task is illustrated by the team members' satisfaction and the impact on the whole work that make by the team. As early as Organ's (1988) research, he thought that OCB can effectively improve overall organizational effectiveness. The first empirical study about the relationship between organizational citizenship behavior and team effectiveness is Karambayya (1990). She concluded that high performance team in a higher employee satisfaction, show more OCB. Williams and Anderson (1991) provided support for the job satisfaction-OCB relationship, and a recent meta-analysis, by LePine, Erez, and Johnson (2002), stated a corrected correlation between job satisfaction and OCB of .24(e.g. Organ & Ryan, 1995; Podsakoff, Mackenzie & Bommer, 1996). OCB can influence team performance (Podsakoff et al., 1997; Walz and Niehoff, 2000) because they help people work together.

OCB contributes to team effectiveness through its impact on the context in which the task is performed (Podsakoff & MacKenzie, 1997). These behaviors are important and desirable for an organization to the extent they achieve results

such as more effective communication that allows best practices to be shared among employees or allows more coordination each other. While constructive change-oriented communication, or voice, is related to contextual performance, it does not relate directly to task performance, though it should contribute in the aggregate to team effectiveness (LePine & Van Dyne, 2001). Podsakoff and MacKenzie (1997) argue that the presence of OCB in an organization can increase effectiveness through mechanisms such as increased managerial and coworker productivity, more effective use of scarce resources, or increased organizational flexibility.

In an attempt to summarize the evidence supporting the relationship between OCB and organizational effectiveness, Podsakoff and MacKenzie (1997) reasoned that this behavioral dimension of performance should increase group, department and organization performance “by ‘lubricating’ the social machinery of the organization, reducing friction, and/or increasing efficiency (p.135).” Empirical evidence shows that OCB is related to outcomes such as increased sales unit effectiveness in insurance companies (Podsakoff & MacKenzie, 1994), increase profits in restaurants (Koys, 2001), work group performance in paper mills (Podsakoff et al., 1997), and organizational effectiveness in restaurants (Walz & Niehoff, 1996), organizational effectiveness in banks (Yen & Niehoff, 2004). Thus, existing research indicates that OCB does positively affect organizationally desirable outcomes which in turn must have positive effect on organization effectiveness.

Accordingly, in this study we defined OCB as discretionary behavior directed at self, at the group, and at the organization as a whole (Organ, 1988). Following this recommendation, OCB is measured with items from several dimensions and is treated as a latent construct in this study. Thus, we hypothesize the following:

Hypothesis 1: OCBs: (a)Self domain OCBs, (b)Group domain OCBs, and (c)Organization domain OCBs will be positively related to job satisfaction.

Hypothesis 2: OCBs: (a)Self domain OCBs, (b)Group domain OCBs, and (c)Organization domain OCBs will be positively related to team performance.

2.3 Gender as a moderator

Employee gender differences regarding attitude, behavior, and outcomes attracted considerable research attention during the last decade. A strong consensus has emerged that few, if any, gender differences exist concerning various employee job-related perception (Moncrief et al., 2000; Piercy, Cravens, & Lane, 2001; Siguaw & Huneycutt, 1995). Gender influences the ways in which members of each gender are expected to behave and the manners in which their behavior is interpreted (Cooper & Lewis, 1995; Williams & Best, 1982). Treated as a personal characteristic, gender may influence an employee's perceptions of the workplace and their attitudinal reactions to others within an organization (Mathieu & Zajac, 1990). Furthermore, gender may affect whether individuals connect with coworkers who offer various kinds of information, social support, and opportunities (Scandura & Lankau, 1997).

Most existing research compares amounts of constructs expressed by female and male employees (Babin & Boles, 1998). For example, Johlke et al. (2002) found the female salespersons experience lower levels than male salespersons. Few organizational studies have examined how gender might alter the relationship between constructs (Babin & Boles, 1998; Organ & Ryan, 1995). Although the moderating effects of gender on specific relationships have not been discussed directly, gender likely acts as a moderator in the link between OCBs and team effectiveness, and understanding the moderating effect of gender upon OCBs and team effectiveness relations is of critical concern for theory, research and practice.

Males deeply involved in OCBs may feel more obliged to engage their organization than females who are equally involved, as males may internalize the conviction that they should be loyal and assist their organization in achieving success. From an organizational perspective, males are generally stereotyped as being competent, assertive, independent, and achievement oriented. From an interpersonal perspective, females are generally stereotyped as warm, sociable, interdependent, and relationship oriented (Langford & MacKinnon, 2000). Therefore, males highly involved in OCB may engage in more team effectiveness than females who are highly involved, indicating that gender stereotyping moderates relationships between OCBs and team effectiveness.

The following hypotheses are derived without giving the direction of the moderating effects from the exploratory perspective, since the proposed hypotheses are based on relatively few investigations due to their limited availability.

Hypothesis 3: The relationships between OCBs: (a)Self domain OCBs, (b)Group domain OCBs, and (c)Organization domain OCBs and job satisfaction will be moderated by gender.

Hypothesis 4: The relationships between OCBs: (a)Self domain OCBs, (b)Group domain OCBs, and (c)Organization domain OCBs and team Performance will be moderated by gender.

3. Method

3.1 Sample

This research is an empirical study under team standard, and we choose 39 Chinese companies 379 members as a sample to do the questionnaire investigation which was distributed to members by e-mail during March 2009, and 283 (74.7%) surveys were returned. After deleting incomplete responses, data for this study were obtained from 218 members of 42 work teams in 26 companies in China, thereinto, state-owned enterprises (48.95%), private-owned enterprises (21.3%), foreign-invested enterprises (6.9%), sino-foreign joint ventures (4.4%), and others (e.g. town or village cooperatives) (8.5%). The work teams are comprised of more than 2 workers, with an average of 5.2 workers per team. Of the respondents, 62.2% were men, and 37.8% were women. The majority (56.9%) age of the members were less than 30 years, 30.9% were between 30 and 40 years, 8.5% were between 40 and 50 years, and just 3.7% were more than 50 years. Turning to organization size, most (31.9%) were more than 1000 members, 17.0% were between 500 and 1000 members, 18.6% were between 100 and 500 members, 17.6% were between 50 and 100 members, and 14.9% were less than 50 members.

3.2 Measures

Unless otherwise noted, all items were on a 7-point Likert type response scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Control variables. Past research has demonstrated that gender can influence Chinese employee behaviors and attitudes (Hui & Tan, 1996), and so we included it as a control in our analysis: age (four ordered categories). We also included team size and organization size as controls to measure the number of employees. Since the distribution of the measure was skewed a logarithmic transformation was applied (Hair et al., 1998). Finally, past research has also demonstrated that type of enterprise (five ordered categories) can influence behaviors and attitudes of workers (Farh, Zhong & Organ, 2004).

OCBs. For the variables of organizational citizenship behavior, this study draws Farh, Zhong, and Organ's (2004) research results on Chinese, and then we choose self domain OCBs (e.g. self-training, taking initiative) with 4 items scale, group domain OCBs (e.g. interpersonal harmony, helping coworkers) with 4 items scale, and organization domain OCBs (e.g. protecting and saving company resources, voice and group activity participation) with 5 items scale to measure and not accept the social domain (e.g. social welfare participation, promoting company image). This is because if only to remember the social welfare activities of the individual, do not know the name of their organization, and organizations to participate in public welfare activities unrelated to performance, and promoting company image is one performance of loyalty.

Team effectiveness. For measuring the variables of team effectiveness, we choose job satisfaction and team performance.

Job satisfaction is the reaction to assessment of the employee's work and to the satisfaction level of internal and external demands when doing the work. We will measure employee job satisfaction with 5 items scale that included the following facets: the importance and prospect of the work, consensus to desired work, discretion, the satisfaction, and task capacity following Quinn & Staines (1990).

Team performance is the subjective assessment of team by team employees. We will measure team performance with 4 items scale that included the following facets: the degree of goal's achievement, the degree of team's evaluation, the height of performance, and the quality of team's tasks compared with other teams following Hendersen & Lee (1992).

Gender. We coded male as 0 and female as 1 in the analysis of the data.

To assure equivalence of the measures in the Chinese and English versions, all the scales used in this study were translated into Chinese and then translated back into English. The researchers also examined the questionnaires to ensure that the items were interpretable in Chinese.

3.3 Analysis

The data were analyzed in several phases. First, an exploratory principal component analysis with varimax rotation was performed on all multiple scale items to determine item retention. Items with loadings greater than or equal to .60 on the target construct were retained as long as the items did not produce a cross-loading of .35 or greater.

Descriptive statistics (measures of central tendency and of dispersion, and simple correlations) were calculated to describe the set of scores generated by each of the study variables and the extent of relationships between variables.

Regression analysis was used to test the hypotheses. To test the direct effect hypotheses the dependent variables (team effectiveness) were regressed onto the control variables, independent variables (domains of OCBs) and gender.

Hierarchical moderated regression was used to test the moderation hypotheses (Cohen & Cohen, 1983). Interaction terms often create multicollinearity problems because of their correlations with main effects. We thus computed the

interaction term by centring OCBs and gender before multiplying them with each other. In the moderated hierarchical regression analyses, the control variables were entered, followed by domains of OCBs and gender, and finally the interaction term.

4. Results

The principal component analysis revealed that one of the job satisfactions, one of the team performances, and one of the domains of OCBs loaded on a separate factor. These items were removed before the final scales were computed by averaging the remaining items. All scales demonstrate the expected five-factor structure (eigenvalues > 1.0), explained 61.072 per cent of the variance, and acceptable reliability estimates, ranging from .710 to .859 (see the Appendix, which also includes the wording of each item).

Descriptive statistics and correlation are reported in Table 1. At the univariate level, the three domains of OCBs are moderately correlated with each other: self domain of OCBs is .18 ($p < .05$) correlated with group domain of OCBs and .31 ($p < .01$) with organization domain of OCBs, group domain of OCBs is .23 ($p < .01$) correlated with organization domain of OCBs. The correlations of the OCBs with the job satisfaction range from .15 ($p < .05$) to .26 ($p < .01$) and with team performance range from .24 ($p < .01$) to .39 ($p < .01$).

Results from the regression models are presented in Table 2. The second step (model 2) of the regression models in Table 2 is used to test the direct relationships. Firstly, analyses show that self domain of OCBs ($\beta = .186$, $p < .05$), group domain ($\beta = .173$, $p < .05$) and organization domain ($\beta = .159$, $p < .05$) are directly related to job satisfaction significantly, and increased R^2 by .103 ($F = 3.013$, $p < .01$). Thus, Hypotheses 1a, 1b, and 1c were supported. Hypothesis 1 was supported. Secondly, analyses show that group domain OCBs ($\beta = .198$, $p < .01$) and organization domain ($\beta = .342$, $p < .01$) are directly related to team performance significantly, and increased R^2 by .218 ($F = 7.524$, $p < .01$). There is, however, no direct relationship between self domain and team performance when gender is included in the team performance model 2 ($\beta = .114$, $p > .05$). Thus, Hypotheses 2b and 2c were supported, while 2a was not. Hypothesis 2 was partial supported.

The third step (model 3) of the regressions in Table 2 is used to test the moderation hypotheses. The regressions show that gender only moderates the relationships between organization domain OCBs ($\beta = -.494$, $p < .05$) and job satisfaction significantly, and increased R^2 by .031 ($F = 2.825$, $p < .01$), providing no support for Hypotheses 3a and 3b; and also no support for Hypotheses 4a, 4b, and 4c. To probe the form of the significant interaction, median split sample analyses (e.g., Reilly, 1994) and plots of standardized beta coefficients were performed. As portrayed by Figure 1, the interaction, the positive relationship between organization domain OCBs and job satisfaction was stronger with male than female. Thus, the shape of the interaction is as predicted, providing support for Hypotheses 3c.

5. Discussion

In many different societal cultures OCB is recognized as important for organizational performance. This might be particularly true in PRC. Previously, OCB has been viewed as a consequence of attitudinal and dispositional variables (Organ & Ryan, 1995). This study took another direction by examining a possible outcome of OCB. The primary objective of this study was to explore the relationships between different domain OCBs and team effectiveness in PRC. Among the key findings, OCBs were directly related to team effectiveness, and the relationship was positively. These findings are not entirely novel, since prior research has indicated similar relationships (e.g., George & Bettenhausen, 1990; Karamayya, 1990; MacKenzie et al., 1991, 1993; Podsakoff et al., 1997; Podsakoff & MacKenzie, 1994; Turnipseed & Murkison, 2000; Werner, 1994; Yen & Niehoff, 2004). Accordingly, this study contributes to this research by providing additional empirical support and credit to the opinion that OCBs may enhance team effectiveness.

In this study the team effectiveness has two aspects: job satisfaction and team performance. And OCBs also have three domains: self, group, and organization. From these analyses, the organization domain OCBs has a positive effect on job satisfaction and team performance. Here we would locate OCB dimensions, such as protecting and saving company resources, voice, and group activity participation. These activities do not relate to specific people, yet they contribute to general organizational effectiveness (Farh, Zhong, & Organ, 2004). When employees show more organization domain OCBs, the team effectiveness will be heavier, and the team will obtain more performance and favorable comment, these favorable comments are due to employees, so employees will be satisfied with their job. The group domain OCBs is positively related to job satisfaction and team performance, that means that employees help each other by giving time to crew members who have work-related or nonwork-related (only be considered in China) matters (Farh, Zhong & Organ, 2004), sharing their expertise with each other, and touching base with each other before taking actions that might affect other crew members are more productive (Podsakoff & MacKenzie, 1997), and the productive of crew members can improve the team performance more and more. Interpersonal harmony also is an important behavior to improve team performance, but not proposed in the Western literature. Farh et al. (1997) found it to be one of the two emic OCB dimensions in Taiwan. The Chinese have a long been known for their concern for harmony and unity (solidarity) in social relationships (Yang, 1995), so this culture let Chinese people think harmony very important. Interpersonal harmony behavior can make the environment very comfortable, employees don't spend much time on thinking and

doing with the trivial things, and will feel satisfaction. In this situation, employees will complete work more quickly and nicely, and will contribute to the team performance. The self domain OCBs is only positively related to job satisfaction, that means if employees show more self-training and taking initiative, they will do their job positively, and enhance their selves through self-training, make out more good ideas to improve their work efficiency, these will let them be satisfied with their work. In the prior research self-training and taking initiative can also enhance the team performance, but findings of the present study provided no support for this aspect. Maybe the reason is due to the sample of the questionnaire investigation. There are so many respondents (56.9%) who are less than 30 years older, and may have just graduated from universities. Because of no working experience, they could not enhance the team performance in spite of willing to show many self domain OCBs.

Perhaps the most practically important and novel theoretical contribution of this study is the examination of gender as a moderator of the relationship between OCBs and team effectiveness. Post hoc analyses of possible interactions between gender and OCBs were significant for organization domain OCB-job satisfaction but not for others. First, a positive appraisal reaction in the form of organization domain OCBs was directly related to job satisfaction. Second, there were positive relationships between organization domain OCBs and job satisfaction for employees, and a stronger relationship (steeper slope) for male employees than female. This finding may indicate that relatively male employees are necessary for OCBs to positively influence job satisfaction.

5.1 Implications for Practice

The findings reported may have some interesting implications for managers. First, OCBs are important for enhancing team effectiveness, making spontaneous behaviors an area that managers cannot ignore. How to encourage employees to show more OCBs? Managers should first re-examine their corporate culture of OCBs (Niranjana & Pattanayak, 2005), because a corporate culture encouraging employees to enhance the well-being of their co-workers and the organization (Niranjana & Pattanayak, 2005) will likely lead to willingness to effectiveness. Managers also can encourage the employees to do more OCBs through better the leader behaviors. Despite the fact that employees can not follow the leader's behaviors absolutely if the manager can set as an example to do more OCBs, the employees will still learn from the manager and do more OCBs. And also, managers can use some reward items to encourage employees to show more OCBs.

Additionally, we focused on gender as a key contextual variable that changed the relationship between OCBs and job satisfaction. Since males are more likely and willing to challenge the status quo (Krefting & Powers, 1998; LePine & Van Dyne, 1998; Van Dyne et al., 1995), managers consulting male employees by listening to their constructive suggestions can strengthen OCBs (e.g., voice), and hence enhance employee job satisfaction. Accordingly, organizations must establish official mechanisms to confront employee dissatisfaction when it arises (Lin, 2008). Such mechanisms could formalize a consultation channel—especially useful for males—providing males with an opportunity to freely express their dissatisfaction and provide recommendations for organizational improvement and advances.

On the human resource side, several steps are possible such as selecting job candidate which is based on their level of organizational citizenship behavior, improve policies and procedures concerning performance evaluation in such a way to include certain dimensions of citizenship behavior, and hire employees with high OCB by determining whether applicant have performed beyond minimum standard in their previous working experience or during schooling (Shaiful et al., 2009).

5.2 Limitations and Future Research

The contributions of this research should be viewed in light of several limitations. First, the data were collected via self-report measures causing concern about possible mono-method bias and percept-percept inflated measures (Crompton & Wagner, 1994), and although the Harman's test suggested that common method variance was not a substantial problem, we recognize the desirability of future research using alternative approaches. Future research efforts need not only consider using longitudinal data, but might also focus on multi-source data. Second, it is obviously a limitation that the data were obtained exclusively from employees of manufacturing industry in PRC, since relationships may differ in other industries and countries. Most research on OCBs is conducted in the US, and it is questionable that the findings from this research can generalize to other countries (Fletcher & Perry, 2001). Especially, Culture and environment can affect the translation of the research instruments, the conceptual constructs and the relationships of the variables. Thus, research in other industries and countries is warranted before any firm conclusions can be drawn. Finally, this study is based on cross-sectional data and thus, causality cannot be firmly established.

With these limitations in mind, the current results suggest several avenues of future research worthy of pursuit. First, we should also continue to examine additional factors that may moderate the relationship between OCBs and team effectiveness. Since the ultimate goal of OCBs is increased performance, any examination of variables that may moderate the relationship between different domain OCBs and task performance, should be of interest to both practitioners and academics. For instance, organizational culture, leader-member exchange, fair treatment, type of job,

specialization, accountability and other demographic factors that could potentially interact with OCBs to performance. An additional future research should broaden organizational effectiveness variables of the present study from perceived job satisfaction and team performance to objective aspects of effectiveness variables such as attendance, labor cost percentage, overall turnover rates, profit margin, and financial performance. In particular, in terms of research-based organization (not-for-profit) how to design performance variables by quantitative measures which should be more attention in the future.

References

- Babin, B. J. & Boles, J. S. (1998). Employee behavior in a service environment: a model and test of potential differences between men and women. *Journal of Marketing*, 62(2): 77-91.
- Bierhoff, H. W., Muller, G. F., & Kupper, B. (2000). Prosocial work behavior-development and examination of a measurement for understanding voluntary work engagement. *Gruppendynamik Zeitschrift fur Angewandte Sozialpsychologie*, 31(3): 141-53.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cooper, C. L. & Lewis, S. (1995). Working together: Men and women in organizations. *Leadership & Organization Development Journal*, 24(5): 294-301.
- Crampton, S. M., & Wagner, J. A. (1994). Percept-percept inflation in Micro-organizational research: An investigation of prevalence and effect. *Journal of Applied Psychology*, 79(1): 67-76.
- Farh, J. L., Earley, P. C., & Lin, S. C. (1997). Impetus for action: A cultural analysis of justice and organizational citizenship behavior in Chinese society. *Administrative Science Quarterly*, 42(3): 421-44.
- Farh, J. L., Zhong, C. B., & Organ, D. W. (2004). Organizational citizenship behavior in the People's Republic of China. *Organization Science*, 15(2): 241-53.
- Farh, J., Podsakoff, P. M., & Organ, D. W. (1990). Accounting for organizational citizenship behavior: Leader fairness and task scope versus satisfaction. *Journal of Management*, 16(4): 705-21.
- Fletcher, C., & Perry, E. (2001). *Performance appraisal and feedback: A consideration of national culture and a review of contemporary research and future trends*. London: Sage.
- George, J. M., & Bettenhausen, K. (1990). Understanding prosocial behavior, sales performance, and turnover: A group-level analysis in a service context. *Journal of Applied Psychology*, 75(6): 698-709.
- Hair, J. F. J., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis*. New York: Maxwell Macmillan International.
- Herderson, J. C., & Lee, S. (1992). Managing I/S design teams: A control theories perspective. *Management Science*, 38(6): 757-77.
- Hofstede, G. (1980). Motivation, leadership, and organization: Do American theories apply abroad? *Organizational Dynamics*, 9(1): 42-63.
- Hui, C. H., & Tan, C. K. (1996). *Employee motivation and attitudes in the Chinese workforce*. New York: Oxford University Press.
- Johlke, M. C., Stamper, C. L., & Shoemaker, M. E. (2002). Antecedents to boundary-spanner perceived organizational support. *Journal of Managerial Psychology*, 17(2): 116-28.
- Karambayya, R. (1990). *Good organizational citizens do make a difference*. British Columbia.
- Katz, D. & Kahn, R. L. (1996). *The Social Psychology of Organizations*. New York: Wiley.
- Koys, D. (2001). The Effects of Employee Satisfaction, Organizational Citizenship Behavior, and Turnover on Organizational Effectiveness: A Unit-level Longitudinal Study. *Personnel Psychology*, 54(1): 101-14.
- Krefting, L. A. & Powers, K. J. (1998). Exercised voice as management failure: Implications of willing compliance theories of management and individualism for de facto employee voice. *Employee Responsibilities and Rights Journal*, 11: 263-77.
- Langford, T. & MacKinnon, N. J. (2000). The affective bases for the gendering of traits: Comparing the United States and Canada. *Social Psychology Quarterly*, 63(1): 34-48.
- Lee, V. E., Dedrick, R. F., & Smith, J. B. (1991). The effect of the social organization of schools on teachers' efficacy and satisfaction. *Sociology of Education*, 64(3): 190-208.
- LePine, J. A. & Van Dyne, L. (1998). Predicting voice behavior in work groups. *Journal of Applied Psychology*, 83(66):

853-68.

LePine, J. A., Erez, A., & Johnson, D. E. (2002). The nature and dimensionality of organizational citizenship behavior: a critical review and meta-analysis. *Journal of Applied Psychology*, 87(1): 52-65.

LePine, J.A., & Van Dyne, L. (2001). Voice and cooperative behavior as contrasting forms of contextual performance: Evidence of differential relationships with big five personality characteristics and cognitive ability. *Journal of Applied Psychology* 86(2): 326-36.

Lin, C. P. (2008). Clarifying the relationship between Organizational Citizenship Behaviors, gender, and knowledge sharing in workplace organizations in Taiwan. *Journal of business Psychology*, 22(3): 241-50.

MacKenzie, S. B., Podsakoff, P. M., & Fetter, R. (1991). Organizational citizenship behavior and objective productivity as determinants of managerial evaluations of salespersons' performance. *Organizational Behavior and Human Decision Processes*, 50(1): 123-50.

Mathieu, J. E. & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychology Bulletin*, 108(2): 171-94.

McNeely, B. L., & Meglino, B. M. (1994). The role of dispositional and situational antecedents in prosocial organizational behavior: An examination of the intended beneficiaries of prosocial behavior. *Journal of Applied Psychology*, 79(6): 836-44.

Menguc, B. (2000). An empirical investigation of a social exchange model of Organizational Citizenship Behavior across two sales situations: a Turkish case. *The Journal of Personal Selling and Sales Management*, 20(4): 205-14.

Moncrief, W. C., Babakus, E., Cravens, D. W., & Johnston, M. W. (2000). Examining gender differences in field sales organizations. *Journal of Business Research*, 49(3): 245-57.

Niranjana, P. & Pattanayak, B. (2005). Influence of learned optimism and organizational ethos on organizational citizenship behavior: A study on Indian corporations. *International Journal of Human Resource Development and Management*, 5(1): 85-98.

O'Connell, M. S., Doverspike, D., Christina, N. W., & Hattrup, K. (2001). Predictors of Organizational Citizenship Behavior among Mexican retail salespeople. *International Journal of Organizational Analysis*, 9(3): 272-80.

Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. MA: Lexington Books.

Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology*, 48(4): 775-802.

Pascal, P. (2009). Assessing organizational citizenship behavior in the French context: Evidence for the four-dimensional model. *Journal of Psychology*, 143(2): 133-46.

Piercy, N. F., Cravens, D. W., & Lane, N. (2001). Sales manager behavior control strategy and its consequences: The impact of gender differences. *Journal of Personal Selling & Sales Management*, 21(Winter): 39-49.

Podsakoff, P. M., & MacKenzie, S. B. (1994). Organizational citizenship behaviors and sales unit effectiveness. *Journal of Marketing Research*, 31(3): 351-63.

Podsakoff, P. M., Ahearne, M., & MacKenzie, S. B. (1997). Organizational citizenship behavior and the quantity and quality of work group performance. *Journal of Applied Psychology*, 82(2): 262-70.

Podsakoff, P. M., MacKenzie, S. B., & Bommer, W. H. (1996). Transformational leader behaviors and substitutes for leadership as determinants of employee satisfaction, commitment trust, and organizational citizenship behaviors. *Journal of Management*, 22(2): 259-98.

Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on trust, satisfaction, and organizational citizenship behaviors. *Leadership Quarterly*, 1(2): 107-42.

Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: a critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26(3): 513-63.

Quinn, R. P., & Staines, G. L. (1990). *The 1977 quality of employment survey*. Ann Arbor, MI: Institute for Social Research, University of Michigan Press.

Reilly, N. P. (1994). Exploring the Paradox: Commitment as a moderator of the stressor-burnout relationship. *Journal of Applied Psychology*, 24(5): 397-414.

Scandura, T. A. & Lankau, M. J. (1997). Relationships of gender, family responsibility and flexible work hours to organizational commitment and job satisfaction. *Journal of Organizational Behavior*, 18: 377-91.

- Shaiful, A. K., Hj.Kamaruzaman J., Hassan A., Mohammad I., Kamsol M. K., & Norshimah A. R. (2009). Gender as a moderator of the relationship between OCB and turnover Intention. *Asian Social Science*, 5(6): 108-17.
- Siguaw, J. A. & Hongeycutt, J. (1995). An examination of gender differences in selling behaviors and job attitudes. *Industrial Marketing Management*, 24(1): 45-52.
- Skarlicki, D. P., & Latham, G. P. (1996). Increasing citizenship behavior within a labor union: A test of organizational justice theory. *Journal of Applied Psychology*, 81(2): 161-69.
- Somech, A., & Drach-Zahavy, A. (2000). Understanding organizational citizenship behavior in schools: The relationships between job satisfaction, sense of efficacy, and teachers' extra-role behavior. *Teaching and Teacher Education*, 16(5-6): 649-59.
- Sundstrom, E., DeMeuse, K. P., & Futrell, D. (1990). Work Teams: Applications and Effectiveness. *American Psychologist*, 45(2): 120-30.
- Turnipseed, D. L., & Murkison, E. (2000). A bi-cultural comparison of organizational citizenship behavior: Does the OCB phenomenon transcend national culture? *International Journal of Organizational Analysis*, 8(2): 200-22.
- Van Dyne, L., Cummings, L. L., & McLean Parks, G. (1995). *Extra-role behaviors: In pursuit of construct and definitional clarity (A bridge over muddied waters)*. Greenwich, CT: JAI Press Inc.
- Walz, S. M., & Niehoff, B. P. (2000). Organizational citizenship behaviors: Their relationship to organizational effectiveness. *Journal of Hospitality and Tourism Research*, 24(3): 108-26.
- Werner, J. M. (1994). Dimensions that make a difference: Examining the impact of in-role and extra-role behaviors on supervisory ratings. *Journal of Applied Psychology*, 79(3): 98-107.
- Williams, J. E. & Best, D. F. (1982). *Measuring sex stereotypes, a thirty nation study*. Beverly Hills, CA: Sage.
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behavior. *Journal of Management*, 17(3): 601-17.
- Yang, K. S. (1995). *Chinese social orientation: An integrative analysis*. Hong Kong: Oxford University Press.
- Yen, HsiuJu R., & Niehoff, B. P. (2004). Organizational citizenship behaviors and organizational effectiveness: Examining relationship in Taiwanese banks. *Journal of Applied Social Psychology*, 34(8): 1617-37.
- Yoon, M. H. & Suh, J. (2003). Organizational citizenship behaviors and service quality as external effectiveness of contact employees. *Journal of Business Research*, 56(8): 597-611.

Appendix

Principal component analysis with varimax rotation

Items	Factors				
	JS	ODO	SDO	GDO	TP
I believe my present job is prospective	.734				
My present job is my desirable job	.718				
I have proper discretion on my job	.677				
I am satisfied with my present job	.630				
My knowledge and skills play an important role on my job	.601				
Obey company rules and regulations strictly		.748			
Never to leave working position when non-essential		.747			
Save company resources(e.g., water, electricity, equipment)		.682			
Obey company decisions and arrangements		.676			
Participate in company-organized meetings positively		.622			
Improve working methods positively			.702		
Go in for self-improvement and development			.680		
Obtain satisfaction through acquisition of new			.674		

knowledge and skills					
Come up against difficulties at work and brave it			.614		
If necessary, share coworker's work initiatives				.757	
Willing to listen attentively to coworker's difficulties				.744	
Maintain harmonious relationships and sometimes sacrifice personal interests				.726	
Help coworkers to carry out emergency initiatives				.651	
So far, we team) can complete the assigned target successfully					.708
Recently we(team) got a better evaluation					.687
Compared with other teams, we (team) obtained a higher performance					.685
We (team) have completed high-quality tasks excellently					.685
Initial eigenvalues	5.875	2.954	2.058	1.402	1.147
Percent of variance	26.705	13.427	9.356	6.371	5.213
Coefficient alpha for final scales	.815	.859	.766	.710	.748

Notes: Factor loadings less than .60 are not shown. JS=job satisfaction; ODO=organization domain OCBs; SDO=self domain OCBs; GDO=group domain OCBs; TP=team performance.

Table 1. Descriptive statistics and pearson correlations

	M	SD	1	2	3	4	5	6	7	8	9	10
1 Gender	1.38	.49	-									
2 Age	1.59	.80	-.23**	-								
3 TS	2.29	.55	-.12	.12	-							
4 TOE	2.12	1.38	.06	.05	.19*	-						
5 OS	3.34	1.46	-.07	-.08	.30**	-.16*	-					
6 SDO	5.77	.73	-.01	-.15*	.10	.06	.12	-				
7 GDO	5.41	.95	.12	-.16*	-.12	-.05	-.14*	.18*	-			
8 ODO	5.53	1.02	.02	-.02	-.08	-.09	.03	.31**	.23**	-		
9 JS	5.05	.91	.08	.03	-.12	.05	-.11	.23**	.15*	.26**	-	
10 TP	6.21	.52	.01	-.13	-.01	.05	-.10	.24**	.30**	.39**	.12	-

Notes: N=218. *p<.05; **p<.01. TS=Team size; TOE=Type of enterprise; OS=Organization size; SDO= Self domain OCBs; GDO= Group domain OCBs; ODO= Organization domain OCBs; JS=Job satisfaction; TP=Team performance.

Table 2. Regression results testing the direct and moderation models

Variables	Team Effectiveness					
	Job Satisfaction			Team Performance		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	β (t)	β (t)	β (t)	β (t)	β (t)	β (t)
Age	.032(.426)	.098(1.316)	.094(1.266)	-.151(-2.045)*	-.090(-1.306)	-.088(-1.265)
TS	-.156(-1.947)*	-.164(-2.113)*	-.166(-2.147)*	.046(.578)	.055(.771)	.054(.741)
TOE	.065(.851)	.073(.955)	.064(.877)	.026(.343)	.059(.863)	.058(.845)
OS	-.062(-.778)	-.055(-.713)	-.067(-.860)	-.154(-1.952)*	-.089(-1.250)	-.083(-1.236)
SDO		.186(2.481)*	.011(.052)		.114(1.649)	.105(.511)
GDO		.173(2.338)*	.272(1.239)		.198(2.899)**	.059(.286)
ODO		.159(2.135)*	.624(2.727)**		.342(4.985)**	.486(2.269)*
Gender		.060(.822)	.064(.879)		-.045(-.673)	-.049(-.722)
SDO*G			.199(.886)			.013(.063)
GDO*G			-.196(-.868)			.154(.730)
ODO*G			-.494(-2.090)*			-.163(-.734)
R ² (A-R ²)	.026(.005)	.129(.079)	.160(.097)	.034(.013)	.252(.218)	.255(.209)
F	1.215	3.013**	2.825**	1.609	7.524**	5.485**
ΔR^2		.103	.031		.218	.003

Notes: Hierarchical regression coefficients are shown. * $p < .05$; ** $p < .01$. G=Gender.

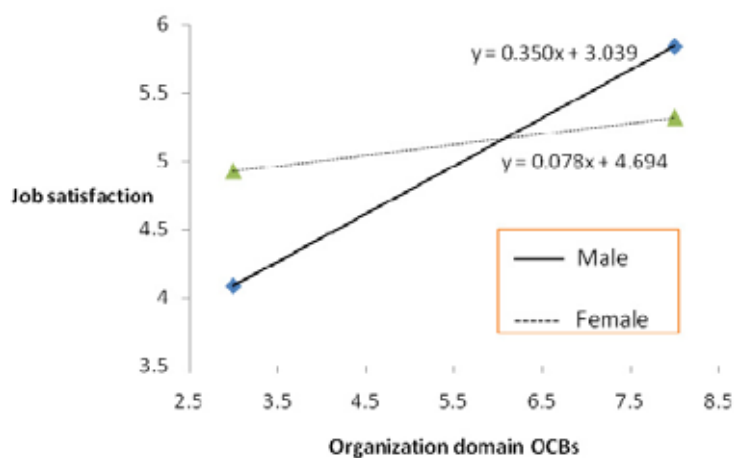


Figure 1. The moderating effect of gender on the relationship between organization domain OCBs and job satisfaction



Empirical Study on Relations between Gender Differences and English Vocabulary and the Overall Proficiency Level

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Abstract

By comparing the cognitive CET-4 vocabulary, applied vocabulary and CET-4 scores of male group of English learners with that of female group of English learners in the university, the paper mainly discusses whether there exists gender difference in second language learning and whether female would keep their language advantages as time goes on. On the basis of analysis of the independent sample t in relevant data, the author of this article believes that there exist obvious differences in their CET-4 cognitive vocabulary, applied vocabulary and CET-4 scores, and that the female group always excels the male group in terms of both vocabulary and CET-4 scores. Therefore, we come to the conclusion that in second language learning in the university, there exist obvious gender differences among male and female and that female have language advantages. Finally, it is pointed out that these conclusions are just exploratory due to limitations of this study, and more research is required to make clear relations between gender and second language learning.

Keywords: Gender differences, Cognitive vocabulary, Applied vocabulary, Overall proficiency level

1. Theoretical background

Relevant studies in the last years indicate that differences exist between male and female in their learning of a language. Song Haiyan (1998) studied prototype of gender and its reflection in speech communication competence between the two genders. According to her, obvious differences exist between male and female in terms of language use, such as, females are inclined to passiveness, circumbendibus and not imposing their own will upon others, etc. Hou Songshan (1998) analyzed and studied influences of task and gender upon foreign communication strategies, and he pointed out that when male and female subjects finished a task, sometimes obvious discrepancy existed and sometimes didn't. From the above studies, it is not difficult to find out that, study on male and female in terms of language pays more attention to discrepancy exhibited in their use of a language, while rare study has been conducted on them in terms of their language learning, especially on whether significant difference exists in terms of second language learning, let alone study on that as a special subject. As a matter of fact, as for the problem whether difference exists between male and female in terms of learning a language, Larsen-Freeman (2000) believed that, in the process of first language acquisition, at least at the early stage, female excel male. Hu Zhuanglin (1989: 199) pointed out, it was generally believed that male and female are born with different linguistic advantages, such as, female learn to speak earlier than male, and female learn a foreign language faster and better than male, etc. Xu Liang (2001) pointed out more definitely, significance of gender difference in language acquisition at the early stage of language acquisition has been increasingly proved with development of study on linguistics in recent years and with breakthrough of neurolinguistics experiment. Then, he pointed out from the perspective of individual development that, effective integration of spatial skills and linguistic cognition provide favorable guarantee for advantages of female in their earlier language acquisition. All the above studies indicate theoretically that females are more adept at learning a language or a second language. Whether that inherent linguistic difference between male and female will continue to exist in the process of second language learning? In this article, the author is going to tentatively discuss and analyze these issues in terms of their CET-4 cognitive vocabulary, applied vocabulary and CET-4 scores in the university.

2. Experimental study

2.1 Respondents

Respondents are classified into two groups: control group and experimental group. The former group are constituted by 32 students randomly selected from Grade 98 of the Department of History, Qufu Normal University, which is mainly to verify reliability and validity of the two vocabulary questionnaires we have compiled. The experimental group is constituted by 318 students randomly selected from Grade 98 of the Department of Chinese Language and Literature, Department of Education, Department of Mathematics and Department of Chemistry, Qufu Normal University, among which are 144 male students and 174 female students.

2.2 Survey instrument

In survey of CET-4 vocabulary, the survey instrument we use is <<Questionnaire of CET-4 Vocabulary>> we have compiled. All respondents are non English majors in the university, so we choose as the target of the survey the vocabulary in the syllabus of College English and vocabulary in the Intensive Reading Course in <<College English>> (edited by Zhai Xiangjun et al, revived version of 1998) which is being studied by our respondents. First of all, we sort out words (including phrases) learned by students in the junior middle school and words (including phrases) in the word list at the end of the course book <<College English>>. Then, we classify them into five levels.

Vocabulary of Level A: altogether 1877 words learned during the junior middle school in the Appendix IV of <<College English>> (Intensive Reading Volume 1).

Vocabulary of Level B: altogether 900 words of CET-4 in Volume 1 of <<College English>>.

Vocabulary of Level C: altogether 797 words of CET-4 in Volume 2 of <<College English>>.

Vocabulary of Level D: altogether 767 words of CET-4 in Volume 3 of <<College English>>.

Vocabulary of Level E: altogether 624 words of CET-4 in Volume 4 of <<College English>>.

Altogether 6500 words are collected in << Glossary in College English Syllabus>>, among which approximately 1800 words are required to be fundamentally grasped by freshmen at their entrance into the university, and approximately 2400 words are required to be grasped from Grade 1 to Grade 4 (Huang Jianbin, 1999). There are altogether 4965 words we have sorted out, which can be said to have met the required number of 4200 words (1800+2400) from Grade 1 to Grade 4 in << Glossary in College English Syllabus >>. Therefore, the vocabulary questionnaire we have compiled is target-oriented with respect to investigation on CET-4 vocabulary and CET-4 score of students.

In sampling words, what we adopt is the method of equidistance of level classification. We draw at random 25 words in Level A, 24 in Level B, 23 in Level C, 24 in Level D and 23 in Level E. In such way, we altogether draw 119 words from Level A to Level E, and then we make a test paper (A). In order to guarantee and check the reliability and validity of test paper (A), we compile test paper (B) again. Words in test paper (B) are sampled as such: we draw at random 25 words in Level A, 24 in Level B, 23 in Level C, 24 in Level D and 24 in Level E, that is, altogether 120 words from Level A to Level E.

There are two methods to investigate vocabulary both at home and abroad. On one hand, the method of multiple-choice question is adopted, namely, to draw a sample of vocabulary, which is matched with a correct answer in the mother language and with three distracters. Gui Shichun (1985), The PLA University of Foreign Languages and Hazenberg & Hulstijn (1996) adopted this method in their investigation on vocabulary of language learners. On the other hand, respondents are required to write the most frequently used meaning in mother language for each word in the test paper or to explain one or two items for the word. Yu Aiju (1991), Gu & Johnson (1996) adopted the second method in their investigation on vocabulary of language learners. In our investigation on the CET-4 vocabulary of non English majors in our school, we adopt the latter, that is, to ask students to write the Chinese meaning of each word in the test paper, or to write down its synonym, or to explain the word so as to indicate that at least they understand one meaning of the word. Besides, we also require students to compose a phrase or make up a sentence with words given so as to indicate that they know how to apply the word.

2.3 Experimental process

The specific test is classified into steps. The first step is to evaluate reliability and validity of the two test papers. First of all, we use test paper (A) and (B) to test students in the control group within one morning. After the test, we immediately make a analysis in the result of these two test papers. We think that, if validity and difficulty of these two test papers are different, then scores of each students for each paper should be different. On the basis of examination on the independent sample T and through comparative analysis, we find out that, Value T of the cognitive vocabulary in these two test papers is .368, Value T of applied vocabulary is 1.699, and the Value P of both test papers is above 0.05, with no obvious difference, so it can be said that differences of these two test papers are not statistically significant. The Mean value, Root-Mean-Square Error (RMS error), Value T and Value P of cognitive vocabulary and applied

vocabulary in test paper A and test paper B are as follows.

Insert Table 1 Here

After getting the result that test paper A and test paper B had the same reliability and validity, we chose test paper B, and made the second test on students in the experimental group within the two weeks before the CET-4 (June 17, 2000). The reason for the choice of the time was that vocabulary of students at that time was almost finalized, and their vocabulary wouldn't change a lot in the following CET-4, so the correlation coefficient of vocabulary and CET-4 scores would be relatively reliable.

2.4 Correction of test paper and collection of data

After the test, we invited relevant teachers and students for correcting test papers. In order to ensure reliability of the scores of test papers, we unified the correction standard before correcting. As for cognitive vocabulary, as long as a student writes out correctly the meaning of one word, we assume that he has understood the word, whether the part of speech of the word is right or wrong. As for a polysemous word, it is considered to be correct so long as a student writes out one of its polysemous words. For example, for the word "awake", it is right that students translate it into the Chinese meaning "huan xiang, jiao xing" (Verb), and it's also OK that they translate it into "xing de, xing zhe de", (Adjective). For the word "sentence", either the translation of "ju zi" is right or the translation of "pan xing" is OK. As for applied vocabulary, it is generally believed that cognitive vocabulary of language learners is larger than their corresponding applied vocabulary. Therefore, when correcting applied vocabulary, we should take into consideration one principle, that is, applied vocabulary of students cannot be larger than their cognitive vocabulary. So long as a student does not know a word, it is assumed that he/she cannot use the word. For instance, a student does not know the word "loss", but when he uses the word, he writes out the phrase "at a loss", which we cannot count as being able to use the word. In addition, as long as a student uses a word correctly when taking an example or making up a sentence, we count him as being able to use the word, regardless of other mistakes (spelling or grammar mistakes) in the example or sentence. Such as, the sentence a student makes up for the word "crime" is: He was committed crime, and we count him as being able to use the word "crime".

In the process of correction, we first of all calculate the number of cognitive vocabulary of students in all levels of vocabulary, and then based on the ratio of each level of vocabulary, convert that number into corresponding number in each level of vocabulary. In the conversion of each level of vocabulary, we use the following formula:

$$\text{Vocabulary of all levels} = \frac{\text{Total number of vocabulary} \times \text{Actual correct number of vocabulary}}{\text{Number of samples from all vocabulary in compilation of a test paper}}$$

Assuming that the correct cognitive vocabulary of a student in test paper A is 23, and applied vocabulary is 20, then the corresponding number of cognitive vocabulary and applied vocabulary after conversion in Level A is respectively as follows:

$$\text{Cognitive vocabulary of Level A} = \frac{1877 \times 23}{25} = 1726.84$$

$$\text{Applied vocabulary of Level A} = \frac{1877 \times 20}{25} = 1501.60$$

The survey instrument we have applied also includes the CET-4 score unifiedly formulated by the Examination Board of the National College English Test-4 and Test-6. Design of CET-4 and CET-6 is quite rational and the grading process is fair and precise, so the score has extremely high reliability and validity.

3. Data analysis

Data analysis is conducted in two steps.

The first step is to make a comparative analysis in cognitive and applied vocabulary among male and female students. First of all, we categorize the vocabulary test paper at hand into two groups based on the factor of gender, namely, male group and female group. Then, we input their cognitive vocabulary and applied vocabulary into the computer, and on

the basis of examination on the independent sample T, we get out the mean value of cognitive vocabulary and applied vocabulary, RMS error, Value T and Value P among male and female students.

Insert Table 2 Here

From Table 2, we can see that the Value T of cognitive vocabulary among male and female students is 2.166, and Value P is 0.031, below the critical value of 0.05, which indicates that obvious differences exist between male and female English learners in terms of their cognitive vocabulary. At the same time, Table also tells us that, Value T of applied vocabulary among male and female students is 2.941, and Value P is 0.004, below the critical value of 0.05, which indicates that obvious differences exist between male and female English learners in terms of their applied vocabulary. Considering the mean value, the average cognitive vocabulary of male students is 3953.82, and that of female students is 4071.95, and the RMS error of female students is 76.9 lower than that of male students. Also, the average applied vocabulary of male students is 3078.73, and that of female students is 3378.78, and the RMS error of female students is 176.83 lower than that of male students. Obviously, whether in terms of cognitive vocabulary or in terms of applied vocabulary, female students excel male students. Therefore, it can be said that significant differences exist between male and female students in terms of their vocabulary, and that female students excel male students.

The second step is to make a comparative analysis in the CET-4 scores of male and female students. We input of CET-4 scores of the two groups into the computer, and on the basis of examination on the independent sample T, we get out the mean value, RMS error, Value T and Value P of CET-4 scores of male and female students.

Insert Table 3 Here

Table 3 also tells us, Value T of CET-4 scores among male and female students is 2.429, and Value P is 0.016, below the critical value of 0.05, which indicates that obvious differences exist between male and female English learners in terms of their CET-4 scores. Considering the mean value, the average CET-4 score of male students is 61.67, that of female students is 64.74, and that the RMS error of female students is 1.45 lower than that of male students, so the CET-4 score of female students is higher than that of male students. Thereout, it can be said that, obvious differences exist between male and female students in terms of their overall English proficiency level, and that female students excel male students.

4. Conclusion and discussion

The previous relevant analysis indicates that obvious differences exist between male and female students in terms of their CET-4 cognitive vocabulary, applied vocabulary and CET-4 scores, and that female students excel male students. That inherent linguistic difference among male and female proposed by Mr. Hu Zhuanglin has been obviously exhibited in the vocabulary of college English and in the CET-4 scores. This indicates that obvious differences exist between male and female in terms of second language learning, and that as time goes on, the differences still exist even in the university. Furthermore, it is still such a case that male maintain a linguistic advantage.

In theory, the present study is corresponding with comments by such experts as Hu Zhuanglin (1989) and Larsen-Freeman (2000). In practice, the present study is also consistent with conclusions by some other researchers, for example, Wu Yi'an, Liu Runqing, etc. (1996) investigated English majors, and believed that female students obviously excel male students in terms of language learning. However, at the same time, the present study somewhat differs from investigation results by other scholars. For instance, Wang Xuemei (2005) make an investigation on differences in their linguistic skills of listening, speaking, reading and writing among English undergraduate majors came to the conclusion that there is no gender difference between male and female students in terms of grammar vocabulary. This might be correlated with different respondents and survey instruments, etc. Therefore, some conclusions of the present study are just exploratory. We testify that obvious differences exist between male and female in terms of their vocabulary and their overall proficiency level, but that cannot mean obvious differences also exist in other aspects, such as listening, writing, and grammar. Difference exists between male and female of non English majors, which also does not mean that difference exists between male and female of English majors. Obvious differences exist between male and female in the university, which does not mean differences exist between male and female in the primary school and in the middle school. All these problems are open for further discussion to give a correct conclusion on relationship between gender and second language learning.

References

- Ding, Guodong & Wu, Yaxin. (2002). Language and Gender: A Linguistic Research Focusing on Both Differences and Similarities. *Foreign Language Education*, No. 2.
- Gu, Yongqi and Robert Keith Johnson. (1996). Vocabulary Learning Strategies and Language Learning Outcomes. *Language Learning*, Vol. 46/4:643-79.
- Gui, Shichun. (1985). Survey and Analysis on English Vocabulary in China. *Modern Foreign Languages*, No. 1.
- Hazenber, Suzanne & Janh. Hulstijn. (1996). Defining a Minimal Receptive Secong-Language Vocabulary for Non -

- native University Students: An Empirical Investigation. *Applied Linguistics*, Vol. 17, No. 2.
- Hou, Songshan. (1998). Influences of Task and Gender on Foreign Communication Strategies. *Journal of PLA University of Foreign Languages*, No. 6.
- Hu, Zhuanglin. (1989). *Linguistics: An Introduction*. Peking University Press.
- Huang, Jianbin. (1999). On Glossary in "College English Syllabus". *Foreign Language World*, No. 4.
- Larsen-Freeman, D. & Michael H. Long. (2000). *An Introduction to Second Language Acquisition Research*. Beijing: Foreign Language teaching and Research Press.
- Li Yue'e. (2001). A Review of Women, Men and Politeness. *Contemporary Linguistics*, No. 1.
- Song, Haiyan. (1998). Prototype of Gender and Its Reflection in Speech Communication Competence between the Two Genders. *Foreign Language*, No. 1.
- Wang, Gaiyan. (1999). Exploration in Differences in Linguistic Behaviors among Men and Women. *Foreign Language Education*, No. 1.
- Wang, Xuemei. (2005). Study on Gender Differences in Linguistic Skills among EFL Learners. *English Teaching and Research in Normal Colleges and Universities*, No. 1.
- Wu, Jihong. (2001). On Theoretical Perspective of Community of Practice in Language and Gender Research. *Foreign Language Education*, No. 2.
- Wu, Yi'an, Liu, Runqing, et al. (1996). *Learner Factors and Learning Achievement --- A Study of the Effect of Factors Affecting English Language Learning*. Beijing: Foreign Language teaching and Research Press.
- Xu, Liang. (2001). The Neurolinguistic Significance of Gender Differences to the Establishment of Optimized SLA Strategies. *Foreign Languages and Their Teaching*, No. 6.
- Yu, Aiju. (1991). Survey and Analysis in English Vocabulary among Trainees. *Foreign Language Teaching and Research*, No. 1.
- Zhai, Xiangjun et al. (1998). *College English* (Volume 1 to Volume 4, revised version). Shanghai Foreign Language Education Press.

Notes

Note 1. Words in the present study include phrases, not including proper nouns, names of persons and places.

Note 2. All data in the present study are calculated based on the statistical software of SPSS (9.0).

Table 1. Table of comparison between Test paper A and B

Test paper	NO of students	Cognitive vocabulary				Applied vocabulary			
		Mean value	RMS error	Value T	Value P	Mean value	RMS error	Value T	Value P
A	32	4174.90	615.50	.368	.721	3958.71	763.47	1.699	.124
B	32	4149.67	456.02			3690.08	604.10		

Table 2. Mean value, RMS error, Value T and Value P among male and female students

Gender	NO. of students	Cognitive vocabulary				Applied vocabulary			
		Mean value	RMS error	Value T	Value P	Mean value	RMS error	Value T	Value P
Male	144	3953.82	524.74	2.166	0.031	3078.73	997.27	2.941	0.004
Female	170	4071.95	447.84			3378.78	820.44		

Table 3. Mean value, RMS error, Value T and Value P of CET-4 scores among male and female students

Gender	NO. of students	Score of CET-4			
		Mean value	RMS error	Value T	Value P
Male	144	61.67	12.04	2.429	0.016
Female	170	64.74	10.59		



Survival in Poverty Dynamics in Urban Communities ---Empirical Study on Survival Strategy among Urban Poor Population from L Community in China

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Abstract

Urban poverty is a practical social issue which receives increasing focus and given more prominence at present in China, and is an important aspect demanding prompt solution for construction of a harmonious China. In study on current Chinese urban poverty issues, what is the most important but what is often ignored consciously or unconsciously is how the urban poverty population with limited resources and property maintain their life. The topic this paper is going to discuss is to understand how the urban poverty population maintains their living with limited resources and property, that is, to understand what they have, but not what they haven't. Through in-depth study on and empirical analysis in practical and typical cases, the author of this paper exhibits the survival technical tactics of urban poverty population to relieve and extinguish poverty and the obstructive factors existing in their survival tactics. Then, the author reconstructs dynamic image of poverty in poverty process, which provides a brand-new field of view for elimination of urban poverty. The author holds the viewpoint that survival technical tactics of urban poverty population or families affect maintenance of their survival in poverty caused and in the process of persistent poverty as well as poverty relief. Control or change by urban poverty population or families on their consumption structure after falling into poverty plays a critical role in their maintenance of survival and relief of poverty, which is particularly obvious during the period of poverty caused. Portfolio management of urban poverty population or domestic tangible assets (increase of domestic labor force and reduction of human capital investment) and running of the productive assets and intangible assets (alteration and adjustment of domestic relations and maximum value conversion of social capital) reinforce their survival capacity in the poverty process and the ability to relieve and even break away from poverty, but not enlarge their opportunity to fall into poverty. Empirical analysis and in-depth case study in this paper will verify these subjects.

Keywords: Urban poor population, Poverty dynamic & process, Survival technical tactic

1. Study overview and framework

1.1 Poverty process and poverty theory

Study on "Poverty process" (Duncan, 1984) presents to us a dynamic picture about poverty. Poverty trends or process includes the following three flow forms about urban poverty poor population (including family). 1. Poverty caused, a condition from non-poverty to initial poverty; 2. Persistent poverty, namely, poverty from the first year or the year N until the year N+1; 3. Poverty relief, namely, the transition from poverty to non-poverty. As for the quantity of poverty, on one hand, it refers to the process of poverty quantity at different stages, and on the other hand, it refers to explanation on the newborn rate, persistent poverty rate and poverty relief rate. The Taiwan Scholar Lv Chaoxian et al, proposed three theoretical aspects during their review on the American poverty theory and on relevant subjects since 1960s,

namely, shortage of orientation, choice of orientation and limitation of orientation. Thereout, they classified different poverty theories into shortage of viewpoint, choice of viewpoint and limitation of viewpoint (Lv Chaoxian et al, 2000). The shortage of viewpoint mainly includes theories of human capital and status attainment, etc, which advocates shortage of internal conditions of an individual or a family, such as education level, technical knowledge, relationship network and limited family resources etc that are causes for an individual or a family to fall into poverty. According to the choice of viewpoint, poverty is the result of self choice of an individual or a family, and their norm of choice might be determined by rational calculation or by their attitude and value, such as theories of poverty culture and new-poverty culture. According to the limitation of viewpoint, conditions of poor population are limited by external surroundings, so that they have to fall into the current predicament, such as the situations theory, neo-structural and labor force market theory. Without doubt, each theory which explains poverty includes the above orientations to a different degree. That is, fuzziness exists in the type boundary of the above poverty theories, but discrepancy between positioning of theories is exactly within our control (See Table 1). Considering works of study on current Chinese urban poor population, discussion by the academic circles on urban poverty has not exceeded the above three theoretical orientations. Furthermore, their discussion has not acquired as much attention and extensive research as that on rural poverty.

Insert Table 1 Here

In China, study on “poverty-shortage of orientation” among urban poor population lays much emphasis on development of informal social support network, so as to overcome shortage of educational level, technical knowledge and family resource. In their case study on urban poor families in Shanghai, Tang Jun and Zhu Yaoyin et al mainly discuss the community’s poverty support network between social security system and social support network, which is an integrative application of community resources in the sense of shortage of urban poor population or family resources (Tang Jun & Zhu Yaoyin, et al, 1999; Yang Tuan, 2002; Ge Daoshun, 2003;). As for study on “poverty-choice of orientation” in urban poor population, there hasn’t been powerful experiential support and research in China, because no one would choose poverty by regarding poverty as rationality. After all, China is not a welfare state, but since 1999 when the system of “subsistence allowances for the urban poor” was carried out all around the country, some scholars have paid more attention to urban poverty of the choice of orientation (Hong Dayong, 2003). In a more significant sense, poverty culture is a method by poor population or families to resolve their daily living issues, so it can be said to be an adaptation to their situations. As a matter of fact, this article is not only aimed at discovering adaptive patterns of urban poor population, but to explore obstructive factors of their adaptation, so as to finally prove that, their survival technical tactic is not a result of choice, but a result of limitation due to shortage of imagery. Obviously, study on “poverty-limitation of orientation” in urban poor population not only integrates the above two theories, but more concentrates on responsive tactics of poverty relief. Elimination of limitation on a series of factors, such as productive, social, structural and situations factors, and resource allocation of equalization and support of opportunities to obtain these resources, is without doubt helpful for elimination of poverty. Of course, that is unavoidably ideal, but after all, it can be achieved by social policies (Wang Shaoguang, 1999; Shen Hong, 2000).

1.2 Framework of technical tactic of survival

<<World Development Report in 1990: Poverty>> by the World Bank outlines the overall framework of the country to relieve its poverty. Firstly, economic growth, that is, to focus on using labor force of poor population as their most important assets. Secondly, investment in basic health and education (human capital), so as to stimulate effective use of labor force among poor population. Thirdly, offer of social security network, so as to guarantee fundamental living of poor population. As a general action framework for the country to relieve poverty, it actually comes from experiences of poor population in the community to maintain their living, and it also has become a foundation for communication between the government and the social citizens to relieve poverty.

In addition to programs by the government to relieve poverty, urban poor population also has their own responsive program in the process of poverty relieve, which, as a survival technical tactic, exhibits certain adaptability in its response to persistent poverty. That is to say, the government should not only regard urban poor population as helpless paupers, since they also have lots of responsive and adaptative means in poverty happening or in the process of persistent poverty, and these means are exactly the foundation for them to detach from poverty. Therefore, it is necessary for the government to have a clear idea about survival technical tactics of urban poor population, to encourage creative resolutions methods and to give a continual national strategic leading in elimination of obstructions in these methods. The government should not replace, obstruct or damage their survival technical tactics (Caroline Moser, 2001). How to maintain subsistence or livelihood is usually a question of questions in daily life of urban poor population. Starting from the most elementary food guarantee, urban poor population usually adopts the following two tactics. On one hand, the tactic of changing consumption, which a short-term responsive means. On the other hand, the tactic of increasing income, which a long-term responsive means. The former is a short term response to limitation to consumption of food or non-food resources in cases when poverty happens, while the latter is a perpetual responsive competence to obtain food in the process of persistent poverty, and is also required for poverty relief. Based on the

duality of relative weakness of resource assets and the vulnerability, Caroline Moser further regards urban poor population as tactic managers of complex resource assets portfolio in terms of income increase (Caroline Moser, 2001). That is to say, urban poor population employ effectively their own technique by means of portfolio management of their resource assets, so as to maintain subsistence or relieve poverty. These resource assets usually include tangible assets (labor force and human capital), productive assets (housing, motor cabin/rickshaw, sewing machine and washing machine, etc) and intangible assets (family relationship and social capital etc). Framework of survival technical tactics of urban poor population in this article basically follows Caroline Moser's portfolio management of resource assets, as is shown in Table 2. This framework approves the "subjectivity of poor population" and "establishment of subjectivity of poor population" in poverty relief or elimination, which is exactly the other main topic the author is going to discuss (Shen Hong, 2002).

Insert Table 2 Here

2. Data sources and research methods

What the research in this article is based on are data in the investigation in 2002 on how urban poor population or families in L community in W District of China's S City maintained their subsistence and relieved the poverty conditions and data in relevant statistical returns in the neighborhood committee. This investigation was finished by undergraduates of Grade 2002 in our department during their internship in Bureau of Civil Affairs in W District within one month, and the specific research design is briefly introduced as follows. Here, it is necessary to note that this paper adopts encrypted name of administrative area according to research practice.

As for choice of communities of sample case study, we just conduct random sampling in 195 communities governed by 14 subdistrict offices within W District, and just sample one community from tables of random numbers, namely, L community. W District is the central area of S city in China, located in the south of Yangtze River. L community is located in the Southeast of W District, a large old residential area, in which occupations of residents have strong homogeneity, and most are employees of shipyards, some small size enterprises, and small public institutions. L community altogether has 1308 households and 4709 residents, which include 126 poverty households, and 492 poor populations. Due to small scope of the sample, we use a unified questionnaire table to conduct a flexible structural visit of residence registration on these 126 poverty households, and also make an in-depth individual case visit on these poor populations. Use of these two methods is not only for statistical convenience, but to obtain breakthrough in some research issues through in-depth visit. The overall situation of the sample is shown in Table 3.

As for formulation of the unified questionnaire table in the structural visit, we follow the portfolio management of resource assets by Caroline Moser, and place extra emphasis on measurement of the following several concepts or variables. 1. Labor force, which refers to people's labor competence or work competence (state) and labor force (quantity), and which is considered the most important assets of poor population or families. Based on that, we can understand alteration of occupations in the poverty process and increase and decrease of family labor force. 2. Human capital, which refers to people's state of health (affecting their work competence), skills and educational level (determining their labor remuneration). Based on that, we can understand alteration conditions of health, skills, education or training (supply and demand). 3. Productive assets, such as housing, motor cabin/rickshaw, sewing machine and washing machine, and other tools that can bring more economic income. Based on that, we can understand possession and employment of poor population or families in the poverty process. 4. Family relationship, a mechanism which centralizes income and assumes consumption. Based on that, we can understand influences of alteration of family structure or family scale on poverty in the poverty process. 5. Social capital, which here refers to trust from social relationship and mutual assistance between non-governmental organizations and families (relationship of between neighbours and relatives). Based on that, we can understand trust, cooperation and mutual assistance in the poverty process and use and changes of relationship network.

The basic hypothesis of this research: survival technical tactics of urban poor population or families affect the maintenance of their subsistence in poverty caused and in the process of persistent poverty, and the detachment from poverty.

Insert Table 3 Here

3. Research results

Through research, we discover that urban poor population has the following technical tactics to relieve poverty in how to maintain a living.

3.1 Change of the structure of consumption

According to Gans' situations theory, change of the living situations can help poor population break away from current predicament, and their detachment from current life style is the primary way out (Gangs, H.J, 1968). Obviously, here implies such a logic: change of a life style can relieve or cope with short-term poverty. However, detachment from

current life style needs a process, and also some opportunities and elimination of resource limitation. In daily life, once poverty happens to us, each of us will cope with actively in misery. Employment of a series of measures to change former consumption pattern, such as reduction on non food items, can help us avoid exhaust our food and non food resources, so as to achieve a short-term food guarantee. In Table 4, the author lists out per capita consuming level and consumption structure each month of the 126 poverty households in L community before and after the poverty.

Insert Table 4 Here

Through comparison before and after poverty, we can discover that, expenditure on clothing, household equipment and service, medical care, entertainment, education and culture, and miscellaneous commodity and service in the period of poverty caused or persistent poverty process is reduced by over 60% compared with that before poverty, while difference of expenditure on food, traffic and communications between these two periods is less than 35%. It is not difficult to find out that, reduction on expenditure of non food items is a general responsive tactic for urban poor population or families to maintain their subsistence and relieve poverty. In addition, during our in-depth visit, there is also such a typical case. Case 12 (visit No): [Zhang X, Male, 42, Worker] in 1998 when my mother's malignant tumor was cured, we were almost reduced to poverty and ruin... At the initial stage of falling into poverty, the four members in my family ate green vegetables almost each meal, and we ate porridge each supper. We didn't take the bus any more for work, but walked to the factory each morning by getting up 1 hour earlier... At that time, my daughter was very thoughtful, and even hasn't bought a pretty diary... Besides, my hairdressing then was all done by my wife... To be frank now, although our income condition has been improved since my wife has had a "cloth art" job (taking some work back home, mainly hemming-stitch), we are accustomed to this living style, and it can also help store some money for special use... From the above individual case, it is not difficult to find out that, food substitution, changes of diet habits and shopping habits etc, cannot be ignored in the process of maintaining the subsistence and relieve poverty by urban poor population.

3.2 Portfolio management of tangible assets

Just as what the previous theoretical hypothesis says, portfolio management of tangible assets in the poverty process has significant effect on maintaining the subsistence and relieving poverty for urban poor population. Furthermore, the key to maintaining the subsistence and even detaching from poverty is effective portfolio management of tangible assets in the poverty process.

Insert Table 5 Here

3.2.1 Increase of family labor force

In table 5, a general trend of increase of labor force and the number of family employed members and change of corresponding income in the persistent poverty process among urban poor population or families. Statistical results in Table 5 indicate that, in our study on L community, the general responsive way of families falling into poverty is to mobilize extra labor force, and more women throw themselves into the large army of labor. Rate of women's work in the entire poor population increases from 14.43% before poverty to 24.39% after poverty, with a difference of 69.01% between the two periods. Occupations of women are mostly concentrated on some informal employment areas with instability, temporality, non-contract, non-welfare, low remuneration, low technique, bad working environment, and low security areas, such as household service, etc. Besides, in terms of private operation or secondary occupation, whether for male or female householders, the period after poverty is over 80% higher than the period before poverty. It can be seen that, expansion of labor force or expansion of working competence is also a general trend to relieve or detach from poverty. In Table 5, we can also find out that increase rate of employment among children at the age from 15 to 24 is particularly obvious. And for males, the rate is 533.33% higher after poverty than that before poverty, and for females, the rate is 200% higher after poverty than that before poverty. Actually, our in-depth visit also reflects such an actual situation. In order to relieve the poverty conditions in the family and to break away together with parents from poverty, more children choose employment rather than continual education. The large majority of them are engaged in industries of service, such as hotel attendants, and securities custody clerk, etc. Furthermore, in the situation when parents cannot maintain the living of the whole family, they are more inclined to asking their children to participate in the army of labor, which is also a tactic of labor force mobilization in urban poor population or families. In addition to the above situations, mobilization of labor force is also reflected in more dependence on children between 8 and 14 in housework, because this leaves much more time for parents to earn more income. Housework done by both boys and girls is over 700% higher after poverty than that before poverty. Given corresponding disposable income changes, in the process of implementation of this tactic of labor force increase, per capita income each month is over 60% higher in persistent poverty than that during the period of poverty caused. It is not difficult to find out that, labor force mobilization plays a crucial role in income increase, and necessarily affects poverty relief and detachment.

3.2.2 Reduction on investment in human capital

According to human capital theory, salary of an individual in the labor force market is determined by his/her capacity of

employing his/her labor force, which, in turn, differs due to different human capital of individuals. That is to say, limited human capital reserves or level makes it difficult for them to acquire excellent employment opportunities and more salary, so that the risk of falling into poverty is increased. As a matter of fact, our research also verifies this point, as is shown in Table 6. Educational length and average income per month in the table tell us differences of educational level and income level between urban poor population and non-poor population, which proves that educational level of the population is closely interrelated with income level, and the risk of falling into poverty for families in which householders have low educational level. However, investment of human capital also decides accumulation or storage of human capital in the future. From comparison of per capita consuming level of poor families and their consumption structure after poverty and before poverty in Table 4 and from investment of human capital in Table 6, we discover that, entertainment, education and cultural expense of poor population is reduced by 64.74%, their medical care expense is reduced by 73.14%, their average educational expense each month is 68.24 Yuan lower than that of non-poor population, their average medical care expense each month is 38.66 Yuan lower than that of non-poor population, and their average technical training expense each month is 11.83 Yuan lower than that of non-poor population. However, average miscellaneous fees of children under 14 years old each month is relatively low, merely 5.94 Yuan, but average miscellaneous fees of poor population each month account for 89.34% of average educational expense each month, while the expense rate of non-poor population is merely 35.08%. It is thus clear that, poor population or families still lay great importance to education of their children or investment in education, but they have no choice but to frugally assume part miscellaneous fees of the compulsory education of their children. In fact, in our in-depth visit, we also find out that most poor families are incapable of continuing to assume junior and higher education fees after the compulsory education. Therefore, most children choose employment after the compulsory education, help their family make a living, and take an active attitude to throw themselves into attempt to break away from poverty. Obviously, overall human capital investment of poor population has been reduced, and based on general reasoning of human capital theory, poverty condition of poor population should be aggravated, but it is not the case in actual life of poor population. To a great extent, reduction on investment in human capital has relieved poverty conditions of urban poor population, and has become basis for them to recover or break away from poverty, which has been verified in the previous analysis, and is a management tactic of property and assets combination in poverty process. Here, it is not aimed at propagandizing positive effect of reduction on human capital, but to introduce the viewpoint of situations.

Insert Table 6 Here

3.3 Operation of productive assets

As for urban poor population, due to high commercialization and separation of the rights to use and own land resources, it is unlikely that their productive asset is land, but their housing, sewing machine, washing machine, motor cabin/rickshaw (or bicycle), and ice chest, etc all can be used as productive assets. That's because use of the above assets, in a certain operation meaning, can bring in income for urban poor population or families. As the most critical asset for urban poor population, housing may reduce insecure risks and alleviate burdens in the family in an economic predicament. Besides, for poor population or families falling into poverty, housing is also favorable for alleviating and breaking away from poverty, which here involves the tactic of housing as productive asset. Likewise, possession of sewing machines, washing machines, motor cabin/ rickshaw, and ice chest etc and operation of them in an operational meaning, or their portfolio management, is also regarded as significant productive assets that cannot be ignored. In daily life, poor population or families use productive assets to increase their individual or domestic income, which is a generally adopted tactic to maintain subsistence or relieve poverty. As for specific use and combination, it depends on situations in a poverty process.

Insert Table 7 Here

In our in-depth visit, there is such a typical individual case, Case 35: [Bai X, Female, 39, office clerk (laid-off, private operation currently)] Our life was somewhat good (loosened up), and my husband was also a clerk in a small public institution. However, three years ago, we two were laid off in the downsizing disturbance, when we had just purchased a second-hand apartment, and we didn't have any savings at hand. We borrowed fifty thousand Yuan from several of his (my husband) friends. Well, it was from then that we began to live through our life hard... At the first half year, we were totally at a loss... The neighbouring subdistrict was a station and a shopping centre, so we planned to cook in our kitchen, and then took it by a pedicab to the neighbouring station to sell for box lunch... Now, each day we can sell almost 100 shares. The five-and-ten business cannot earn much, but we are able to lead a normal life, able to pay tuition fees for our 13-year-old son, and only a small part can be saved for repaying the debt (It seems far away for us to pay off the fifty thousand Yuan). She (interviewee) also told us that, there was also a poor household in this building, who had two elderly to support, one daughter with congenital disability, and had one son to take the exam of entering the university. With convenience to live in the first floor, they made a signboard for specially washing woolens, and washed clothes for others with their own washing machine... Obviously, in cases when a family loses its income resources or when its income resources are reduced, as a productive asset, housing plays a particularly prominent role in increasing

income and relieving poverty, while identification on productive assets excluding housing is relatively scattered. However, the recognition is unanimous in feasibility of regarding productive assets as the tactic to maintain the subsistence or relieve poverty.

3.4 Operation of intangible assets

3.4.1 Change and adjustment of family relations

From Table 8 and Table 9, it can be found out: (1) change of family structural factors is an important cause for resulting in poverty. In our survey, we place extra emphasis on subjective attribution of poor population on their family structural factors, and we also find out that, the total poverty proportion caused by “death of bearers of livelihood” is 19.05%, while that in families of single female is up to 60%. The total poverty proportion caused by “inability to work due to high ages” is 19.84%, while that in families of single elderly is prominent, up to 57.9%. As for families with two parents, their family structural factors which cause poverty lie especially in “a large number of members that lack the competence to work” (22.95%) and “Handicap of bearers of livelihood” (21.31%), while “serious illness of family members” (18.03%) is also a relatively obvious factor to cause poverty. (2) Correspondingly, adjustment or change of family relations is also a significant factor to relieve poverty in the poverty process, and here, we pay special attention to measurement of subjective feelings of poor population in effectively relieving poverty by family relations or structural factors. Furthermore, we discover “remarriage” (40%) is an important family structural factor in families of single female to effectively relieve poverty. As for families with two parents, they are mostly influenced by “increase of labor force” (55.74%), while for “families of single elderly”, it is “growth of their children” (47.37%) that contributes to effective relieve of their poverty. Considering the sample, “increase of labor force” (38.89%) and “growth of the children” (20.63%) are adjustment and change factors of significant family relations or structures to maintain the subsistence or to relieve poverty.

Insert Table 8 and Table 9 Here

A family is the most significant resource for urban poor population. In the field of view of study on poverty, family relation is regarded by Caroline as a mechanism to centralize income and assume consumption (Caroline Moser, 2001). Therefore, change and adjustment of family relations affect the centralization degree and assuming of consumption. In other words, family relations decide competence of urban poor population to respond to external environmental changes. In fact, family relation is the structure and pattern of family combination and the unification of family members, which, in turn, affect the aggregation of resources and the ability to mobilize extra labor force. The statistical results in Table 8 about the poverty conditions caused by family structure changes and the statistical results in Table 9 about effective relieve of poverty thanks to family relation changes have verified the above topic.

Insert Figure 1 Here

3.4.2 Maximum value conversion of social capital

In a social security meaning, social capital can be interpreted as welfare of members in a certain social network. Through relative relation network, and social relations such as friends and social associations, poor population or families can acquire external resources, so as to help them overcome difficulties in daily life, so social capital is considered an important property for urban poor population. In other words, the competence of urban poor population to respond to poverty or to break away from poverty is closely interrelated with their social capital accumulation. Likewise, social capital might be strengthened or weakened in daily life. As for urban poor population or families, it is the case that they maintain their subsistence in the process of using and strengthening or weakening their social capital, which is also a survival technical tactic selected to relieve and break away from poverty in the situation when their resources are lacking or limited.

Insert Table 10 Here

From the statistical results in Table 10, it is discovered that social capital in poor population or families is used as a sort of assets for maintenance of subsistence and extinction of poverty in the poverty process by means of informal credit. Here, we merely take network of economic support in poor families as a consideration target, because for poor population, nothing is more important than competence of allocation in economic assets. In the poverty process of poor population, their network of economic support (relatives, friends, neighbours, colleagues, social associations or non-government organizations) provides them support of economic life by means of an informal credit. From Table 10, we can find out that, in the first year of poverty (5 households), the second year of poverty (9 households) and in the third year of poverty (12 households), all poor families have acquired informal credit in network of economic support, which has played a crucial role in terms of maintaining subsistence and relieving poverty for poor families. Times of contact between poor families and members of their network of economic support or the interaction condition also reflects operation of their social capital, which is either strengthened or weakened in use (For details, please see Table 10 and Figure 1). As a whole, times of contact between poor families and their network of economic support is on the rise. From another perspective, it can be predicted such a fact that, they all attempt to make full use of resources and opportunities with an active attitude in use and reuse of social capital, so as to resolve the current poor predicament.

Furthermore, from Figure 1, we can also discover that times of contact between poor families and their relatives and neighbours is on the rise, while their interaction with friends and colleagues is task back. Besides, the interaction with neighbours exhibits an obvious fluctuation trend, while interaction with relatives and colleagues is relatively stable. A mere reference to contact and interaction of poor families or population with members of their network of economic support cannot tell exactly operation situation of the social capital, but without that, social capital can, by no means, bring corresponding resources and opportunities, let alone strengthening or weakening. As a matter of fact, the above trends also illustrate the maximum value conversion of social capital in poor families, which is interrelated with the automatic operation of the technical tactic to maintain subsistence or relieve poverty.

4. Conclusion and discussion

As for factors of assets portfolio management to relieve poverty, such as labor force, human capital, productive assets, family relations and social capital, which are technical tactics of subsistence in urban poor population, we haven't made an analysis of logistic regression in the extent to which they affect maintenance of subsistence in urban poor population and relieve of poverty and even the detachment. Generally speaking, through the previous analysis, we come to the following conclusions.

1) Reduction on expense of non food items, which is a general responsive tactic by urban poor population or families to maintain the subsistence and relieve poverty. Constitution of food, change of diet customs and changes of shopping customs etc cannot be ignored in the process of maintaining the subsistence and relieving poverty in urban poor population or families. 2) Reduction on investment in human capital relieves poverty of urban poor population, and becomes a basis for them to recover or break away from poverty, which is a management tactic of assets combination in poverty process. Here, the author is not propagandizing positive effect of reduction on human capital, but introducing the viewpoint of situations. 3) The most generally responsive method by families falling into poverty is to mobilize extra labor force. And a large majority of women and children are thrown into the army of labor. 4) As an important asset in urban poor population, housing can reduce insecure risks and alleviate burdens of a family in an economic predicament. And for the population or families falling into poverty, housing may also help relieve and break away from poverty, which involves the tactic of housing as a productive asset. Likewise, possession of sewing machines, washing machines, motor cabins/rickshaws and ice chests, and their running in an operational meaning or the portfolio management, is also regarded as the most important productive assets that cannot be ignored. In daily life, poor population or families employ productive assets to increase their individual or domestic income, which is also a generally adopted tactic to maintain subsistence or relieve poverty. Specific use and combination is usually determined by situations in poverty process. 5) A family is the most significant resource for urban poor population. In the field of view of study on poverty, family relation is regarded as a mechanism to centralize income and assume consumption. Therefore, change and adjustment of family relations affect the centralization degree and assuming of consumption. In other words, family relations decide competence of urban poor population to respond to external environmental changes. In fact, family relation is the structure and pattern of family combination and the unification of family members, which, in turn, affect the aggregation of resources and the ability to mobilize extra labor force. 6) In a social security meaning, social capital can be interpreted as welfare of members in a certain social network. Through relative relation network, and social relations such as friends and social associations, poor population or families can acquire external resources, so as to help them overcome difficulties in daily life, so social capital is considered an important property for urban poor population. In other words, the competence of urban poor population to respond to poverty or to break away from poverty is closely interrelated with their social capital accumulation. Likewise, social capital might be strengthened or weakened in daily life. As for urban poor population or families, it is the case that they maintain their subsistence in the process of using and strengthening or weakening their social capital, which is also a survival technical tactic selected to relieve and break away from poverty in the situation when their resources are lacking or limited.

Some scholars consider it a passive choice, but we believe that this is finally a subjectivity construction of an individual, and is an subjective tactic of response to predicament. However, whether the survival technical tactics of urban poor population or families also have their limitations or obstructive factors? For example, whether this adaptive tactic would cause poor population to fall into recursion of poverty? Or whether this individual adaptation or responsive plan would cause urban poor population to step into the trap by themselves and for themselves? Or whether this adaptive tactic might lead to poverty transition to the next generation? And whether the accumulated weakening and corrosion effect of cultural capital and social capital in such a survival culture adaptive to poverty is an important cause for poor families or population unable to break away from poverty? There is no doubt that, here we cannot ignore limitations of survival technical tactics of urban poor population or families, which is also an important subject introduced in this research, but we will discuss it in another paper due to limited space length. Of course, there is also flaw in this paper, because its investigation and research targets are merely confined to one urban community, which decides that the author cannot unfold a public discussion effectively. Likewise, As for factors of assets portfolio management to relieve poverty, such as labor force, human capital, productive assets, family relations and social capital, which are technical tactics of subsistence in urban poor population, we haven't made an analysis of logistic regression in the extent to which they

affect maintenance of subsistence in urban poor population and relieve of poverty and even the detachment, so we haven't got an obvious level of relevant survival technical tactic or assets portfolio management factors. Furthermore, there are also some issues to be open for further study, such as mutual restriction of such factors as labor force, human capital, productive assets, family relations and social capital etc, which deserve full and accurate discussion, and which is also one of subjects to be studied in the future. Without doubt, discussion on survival technical tactics of urban poor population or families is also limited by shortage of our theoretical level. Such a large space hasn't enabled the author to carry out, not to mention finish, our discussion on obstructive factors of survival technical tactics, which is naturally a shortcoming.

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References

- Becker, Gary S. (1993). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. Chicago: The University of Chicago Press.
- Carmon, Mary. (1985). Poverty and Culture: Empirical Evidence and Implications for Public Policy. *Sociological Perspective*, 28(4):403-14.
- Caroline Moser. (2001). *The Vulnerability Framework of the Resource Property--A Re-evaluation of the Tactics for Relieving Poverty*, in Translated Selection of Urban Areas, in Social Gender, Race and Community Development by Ma, Yuanxi et al. Beijing: Chinese book publishing houses.
- Duncan, Greg J. (1984). *Years of Poverty---Years of Plenty*. Michigan: University of Michigan.
- Ge, Daoshun. (2003). Restudy on MOST Case: Study and Policy Application of Community Service Center---Case Analysis in Improvement of the System of Subsistence Allowances for the Urban Poor in Dalian. *Sociological Studies*, No. 4.
- Hong, Dayong. (2003). Development Process of Urban Poverty alleviation in China since the Reform and Opening up. *Sociological Studies*, No. 1.
- Jing, Tiankui. (2001). *Social Security System of Fundamental Integration*. Beijing: Huaxia Publishing House.
- Kelso, William A. (1994). *Poverty and the Underclass: Changing Perspectives of the Poor in America*. New York: New York University Press.
- Lewis, Oscar. (1966). The Culture of Poverty. *Scientific America*, 215(4):19-25.
- Lv, Chaoxian, et al. (2000). American Poverty Theories since 1960s: Review and Integration. *Journal of Social Sciences and Philosophy*, Sun Yat-Sen Institute for Social Sciences and Philosophy, Taiwan Central Academy, Vol. 12, No. 1.
- Murry, Charles. (1984). *Losing Ground: American Social Policy 1950-1980*. New York: Basic Books.
- Shen, Hong. (2002). Establishment of Poor Population as the Subjectivity and Innovation of Community Systems. *Sociological Studies*, No. 1.
- Tang, Jun, Zhu, Yaoyin & Ren, Zhenxing. (1999). Social Security and Social Support Network of Urban Poor Families.--- Case Study in Shanghai. *Sociological Studies*, No. 5.
- Tomaskovic-Devi, Donald. (1988). "Industrial Structure, Relative Labor Power, and Poverty Rates", in Tomaskovic-Devi, Donald Ed: *Poverty and Social Welfare in the United States*. Boulder and London: Westview Press.
- Wang, Shaoguang. (1999). Correct Review on Unequal Challenges. *Management World*, No. 4.
- Wilson, William J. (1987). *The Truly Disadvantaged: The Inner City, the Underclass and Public Policy*. Chicago: The University of Chicago Press.
- World Bank. (1990). *World Development Report in 1990: Poverty*. Beijing: China Financial & Economic Publishing House.
- Yang, Tuan. (2002). *Comments on Community Services*. Beijing: huaxia publishing house.

Table 1. Types of poverty theory

Positioning the theory	of	Poverty trend	Study approach	Name of argument	Classical study
Shortage orientation	of	Poverty caused	Action	Theories of human capital and status attainment	Becker (1993) / Kelso (1994)
Choice orientation	of	Persistent poverty	Process	Theories of poverty culture and neo-poverty culture	Lewis (1966)& /Murry (1984)
Limitation orientation	of	Poverty caused	Interaction	Situations theory, neo-structural theory and labour force market theory	Carmon(1985)/Tomaskovic(1988)/Wilson(1987)

Table 2. Framework of survival technical tactics

Survival tactics	Poverty trends	Major features	Specific content
Change of consumption	Poverty caused	Response/survival (short term)	Food substitution, Change of diet habit, change of shopping habits, reduction of expense on non food items, etc
Increase income	Persistent poverty/ Poverty relief	Adaptation/Survival (long term)	Portfolio management of tangible assets (labor and human capital), productive assets(housing etc) and intangible assets (family relationship and social capital etc)

Table 3. Overall condition of the sample

	N	%		N	%		N	%
Poverty incidence			15-24	93	18.90	2	9	7.14
Poor households	126	9.63	25-34	32	6.50	3	12	9.52
Poor population	492	10.45	35-44	91	18.50	4	18	14.29
Gender of poor population			45-54	85	17.28	5	15	11.90
Male	241	48.98	Above 55	102	20.73	6	21	16.67
Female	251	51.02	Occupation *			7	19	15.08
Educational level of poor population			Technical workers	26	5.28	8	14	11.11
Primary school and below	46	9.35	Unskilled workers	214	43.50	9 years and above	13	10.32
Junior high school	182	36.99	Office Clerk / Office staff	107	21.75	Patterns or types of a family		
High and middle school and technical secondary school	219	44.51	Cadres of government enterprises	—	—	Single citizens	19	15.08
Junior college	45	9.15	Professionals technical	—	—	Female single-parent family	15	11.91
Undergraduate and above	—	—	Others	145	29.47	Two parents	61	48.41
Age of poor population			Time of persistent poverty (Year)/(Household)			Others	31	24.60
Under 14	89	18.09	1	5	3.97			

Note: * Occupations refer to current occupations or occupations before unemployment, and others usually include students, obligatory servicemen, and individual operation persons etc.

Table 4. Comparison of per capita consuming level and consumption structure each month of poverty households before and after the poverty

Name of index	Poverty family (After poverty)		Before poverty		The period after poverty lower than that before poverty%
	Amount (Yuan)	Composition %	Amount (Yuan)	Composition%	
Consumption expenditure	300.60	100	666.13	100	-54.87
Food (Engel's coefficient)	146.59	48.77	215.28	32.32	-31.91
Clothing	25.16	8.37	62.92	9.45	-60.01
Household equipment and service	22.06	7.34	91.49	13.73	-75.89
Medical care	13.18	4.38	49.07	7.37	-73.14
Communications	17.30	5.75	50.39	7.56	-33.09
Entertainment, education and culture	37.72	12.55	106.99	16.06	-64.74
Residence	22.30	7.42	48.95	7.35	-54.44
Miscellaneous commodity and service	16.29	5.42	41.04	6.16	-60.30

Table 5. Changes of labor force and the number of family employed members and also changes of per capita income each month in the poverty process

	After poverty		Before poverty		The period after poverty higher than that before poverty %	Poverty Persistent poverty caused		The period of persistent poverty higher than that of poverty caused %
	NO of people	%	NO of people	%		Per capita income each month(Yuan)	Per capita income each month(Yuan)	
Employment status of householder (25-)								
Male	112	22.76	126	25.61	-11.11	191.67	197.59	3.09
Female	120	24.39	71	14.43	69.01	113.34	194.72	71.80
Avocation of householders (25-)								
Male	83	16.87	46	9.35	80.43	59.48	105.16	76.80
Female	98	19.92	52	10.57	88.46	56.17	90.78	61.62
Employment of children(15-24)								
Male	19	3.86	3	0.61	533.33	74.65	180.36	141.61
Female	21	4.27	7	1.42	200.00	69.26	175.91	153.98
Housework by children (8-14)								
Male	11	2.24	1	0.20	1000.00	—	—	—
Female	24	4.88	3	0.61	700.00	—	—	—

Note: (1) Employment here refers to informal employment, because the proportion of informal employment among urban poor population is quite large, and is mostly concentrated in private, domestic and community districts, which cannot be ignored. (2) The content within the parenthesis represents age bracket. (3) Avocation here mainly refers to private operation or the second occupation, which, to some extent, is overlaps with employment situation, so here it is ignored. (4) Here, per capita income refers to disposable income. Per capita income each month at the stage of initial poverty is chosen for the period of poverty caused, while that of the current year (1+n) is chosen for the process of persistent poverty. In this article, the author ignores different persistent time (n) of poverty.

Table 6. Human capital conditions of poor population and non-poor population

	Poor population	Non-poor population	Difference of average level
Average educational years (Year)	9.62	12.15	-2.53
Average income per month (Yuan)	304.67	825.42	-520.75
Average education expense per month (Yuan)	33.12 (29.59)	101.36 (35.56)	-68.24 (-5.97)
Average medical care expense per month (Yuan)	13.18	51.84	-38.66
Average technical training expense per month (Yuan)	1.37	13.20	-11.83

Note: (1) Per capita income each month here refers to actually disposable. (2) Part data come from annual statistical returns by the neighborhood committees. (3) The content within the parenthesis in the column of average educational expense per month refers to miscellaneous fees of children under the age 14 per month.

Table 7. Subjective evaluation of poor population on operation of productive assets

Types of productive assets	Average score of evaluation on income increase	Average score of evaluation on poverty relief	Average score of evaluation on operation difficulty
Housing	67.81	75.33	10.03
Washing machine	55.62	41.25	5.36
Sewing machine	36.94	30.61	16.21
Motor cabin	44.17	33.12	8.67
Ice chest	30.17	23.23	24.59
Others	35.45	26.76	11.43

Table 8. Family relations which cause poverty or the structural factors and their distribution

Family structural factors	Families of single elderly	Families of single female	Family with two parents	Others	Total
Death of bearers of livelihood	1 5.26	9 60.00	8 13.11	6 19.35	24 19.05
A large number of members that lack the competence to work	—	—	14 22.95	8 25.81	22 17.46
Unable to work due to high ages	11 57.90	1 6.67	6 9.84	7 22.58	25 19.84
Serious illness of family members	—	1 6.67	11 18.03	3 9.68	15 11.90
Low work competence of bearers of livelihood	1 5.26	1 6.67	9 14.75	5 16.13	16 12.70
Handicap of bearers of livelihood	6 31.58	3	13 21.31	2 6.45	24 19.05
Total	19 100.0	15 100.0	61 100.0	31 100.0	126 100.0

Table 9. Family relations which relieve poverty or the structural factors and their distribution

Family structural factors	Families of single elderly	Families of single female	Family of two parents	Others	Total
Remarriage	1 5.26	6 40.00	—	3 9.68	10 7.94
Increase of labor force	—	3 20.00	34 55.74	12 38.71	49 38.89
Growth of children	9 47.37	3 20.00	9 14.75	5 16.13	26 20.63
Recovery of wound and illness	8 42.11	2 13.33	6 9.84	3 9.68	19 15.08
Acquisition of work with high salary	1 5.26	1 6.67	8 13.11	7 22.58	17 13.49
Death due to serious wound and illness	—	—	4 6.56	1 3.23	5 3.97
Total	19 100.0	15 100.0	61 100.0	31 100.0	126 100.0

Table 10. Distribution of annual average contact and informal credit relations between urban families and the members of their economic support

Time of persistent poverty	Relatives		Friends		Neighbours		Colleagues		Social association non-government organization)		Network of economic support (Total)	
Annual average times of contact	Households of informal credit		Annual average times of contact	Households of informal credit	Annual average times of contact	Households of informal credit	Annual average times of contact	Households of informal credit	Annual average times of contact	Households of informal credit	Annual average times of contact	Households of informal credit
1(5)	16.8	0	21.6	4	8.0	0	14.4	1	0	0	60.8	5
2(9)	18.6	1	23.4	3	19.6	1	14.8	4	3.1	0	79.5	9
3(12)	20.5	2	31.6	5	26.8	1	16.6	3	2.8	0	98.3	11
4(18)	20.8	5	21.5	4	30.5	2	20.6	2	2.5	0	95.9	13
5(15)	26.4	6	32.1	4	25.3	2	22.4	1	1.6	1	107.8	14
6(21)	22.4	4	26.7	7	26.5	4	20.6	2	1.5	0	97.7	17
7(19)	23.9	6	23.5	3	28.6	2	21.5	1	2.8	0	100.3	12
8(14)	26.6	8	21.6	2	29.8	3	19.3	0	3.2	0	100.5	13
≥9(13)	28.3	5	17.8	1	30.6	3	14.1	0	4.6	2	95.4	11

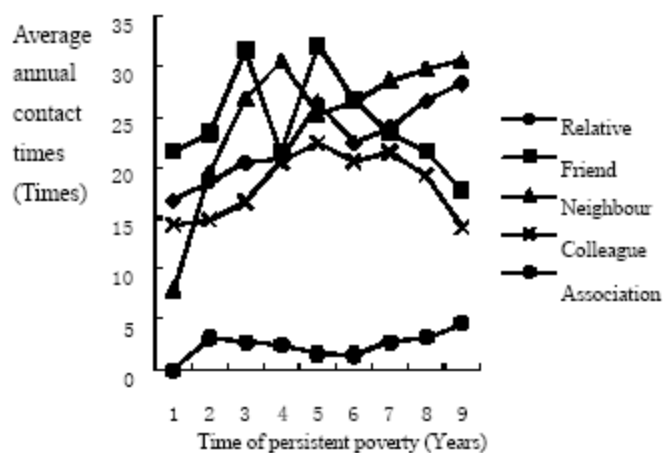


Figure 1. Distribution of annual average times of contact between urban poor population or families and members of their network of economic support



Study on Clothing Industry Present Condition and Structure Adjustment

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Abstract

With the financial crisis, the textile and garment industry is under multiple pressures both at home and abroad. To speed up the adjustment of product structure has become the most urgent problem in clothing industry. This paper points out the problems of structure in clothing industry through the analysis of profit and the development trend of production. Clothing industry is entering a critical period of structural adjustment. Therefore, the paper points out some adapt measures to adjust the structure of clothing industry in different angles.

Keywords: Clothing industry, Structure adjustment, Present condition, Textile

With the occurrence of financial crisis, be subjected to the pressure of RMB appreciation and American time loan crisis influence, the spinning clothing industry is bearing much domestic and international heavy pressure. The adjustment of domestic policies make a lot of clothing exports to reduce tax rebates which included in the processing trade restricted or prohibited categories. Thus make the clothing industry more and more uncomfortable for days. While with the United States meeting the growing credit crisis, the international market is weak, together with the plus of RMB appreciation step to speed, spinning and weaving the clothing business enterprise is also snow to up add frost. The face of disadvantageous situation, to speed up the adjustment of product structure has become the most urgent problem in clothing industry. So the Chinese spinning clothing business enterprise should actively carry out the adjustment of product structure, stabilize a low level market and expand the mid-market, qualified enterprises should move towards into the high level market and develop own-brand.

1. Analysis of the present clothing industry

1.1 Industry profits down bottom

Affected by the global financial crisis, Chinese clothing industry obviously slowed down in profit growth from the beginning of 2008. From January to November in 2008, the sales income and profits total amount increase by 14.95% and 10.51%, respectively compares to reduce 7.95 and 20.27 percentage points. From January to May in 2009, the sales income and profits total amount increase 6.83% and 4.64% respectively compares to reduce 11.38 and 11.20 percentage points. Descend 8.12 with 5.86 percentage points compared in 2008 years from January to November. From January to May in 2009, the gross profit rate together compares to enhance 0.47 percentage points, which enhanced 0.02 percentage points compared with 2008 from January to November. Profit margins descend 0.02 percentage points in 2009; descend 0.47 percentage points compared with 2008. Both inside and outside market overcast, especially in the overseas market shrinks as a result of declining sales growth significantly. While with the drop quickly in income

growth, profit growth rate of decline narrowed, mainly due to the increased demand pressures, as well as the costs descends and the increase in gross margin. Entered in 2009, gross margins have stabilized, the overall profitability gradually at zero growth appearances in the state, the industry gradually running into the bottom.

Insert Figure 1 Here

1.2 Industry production has stabilized

Entered in 2009, the growth fluctuation of industry main products such as yarn, cloth and apparel production become increasing. These are mainly due to the sluggish demand for the downstream effects and take turns of stocks supplement and digestion. These lead to the frequency of fluctuations in capacity. On January in 2009, the production of yarn and cloth touch bottom. The output slides to 10.29% and 22.77% respectively. They start rallying in February and become more and steadier. Because of the Chinese New Year, the production of clothing increase 6.35 percent in January. After the production declining in February, it gradually tends to steady. From January to May, the production of yarn, cloth and apparel rose accumulative to 9.0% -0.9%, 3.4% respectively. Compared with the production in 2008, expect the 0.62 percentage points to upgrade yarn, the cloth and clothing slid down 9.42 and 2.53 percentage points respectively. Because the downstream demand decides the whole output, so we think that the terminating consumes of textile and clothing have touched bottom already, the probability of significant slid in last time is not big. While it hard to turn warm in a short run, the whole industry will enter in a bottom choppy stage.

Insert Figure 2 Here

2. Problems in the clothing industry

With the quick develop of production and operation in globalization; developed countries will transfer the labor-intensive, low technology content and relatively large quantities of clothing production to mainland. These make the domestic clothing industry faces tremendous pressure in the capital, technology, human resources and information. Although Chinese textile and clothing industry has made remarkable achievements in recent years, the development of this industry still can not shake off the extensive model which is characteristic with quantity growth pattern. With the amplification of domain scale and the variance of market demand, the international competition is getting more vigorous; the restraint of resource and atmosphere turn worse further; the accumulation of deep-seated structural problems in a long term have stand out increasingly.

2.1 Transversal industrial structure irrational

At present, the textile and clothing industry expresses a structural contradiction of market demand and supply in a certain extent, the situation of imbalanced industrial structure, high input, high consumption, high emission and low efficiency has not been fundamentally changed which affects the ability of sustainable development of enterprises.

First, sub-sectors from the textile industry structure manifested the relatively over growth of early processing capacity in the textile and chemical fiber industry, which has led to the risk of excessive competition. Some areas and enterprises pursuit unilateral of high growth of scale output value blindly spreads booth, isomorphism of development. From the investment structure, investments of early processing industries such as cotton, chemical fiber and other upper reaches of the textile industry chain accounted for more than 75% of the total, so that the capacity of cotton and chemical fiber production enlarge quickly in the same period.

Second, low level of dyeing and finishing industry affected the supply of high-grade fabrics. Although Chinese textile and apparel production output ranks the first in the world, in many key areas of the textile processing are still at a disadvantage. Some top grade products still need to be imported, such as high-grade fabrics, carpets, non-woven textile manufactured product and so on. At present, 60% fabrics of the Chinese exports of high-grade apparel depend on imports. Meanwhile, the average unit price of imports fabrics is higher than the overall average unit price of exports. The appearance of fabric depends primarily on the dyeing and finishing segments, which is always been the part of the bottlenecks of Chinese textile industry. There are some problems of obsolescence equipment, backward technology, low level of finishing, which resulting in the appearance of fabric lack of material characteristics, low-grade, and feature poor.

Third, three categories of final textile structure can not meet the demand of changes in the structure. Textiles can be divided into clothing, industrial and domestic from the perspective of use. In the long term, with the increasing of industrialization, the demand of industrial and decorative textiles is accelerating. There exist a large gaps between Chinese current products supply structure and developed countries'. About three quarters of the products are used into clothing production and less than a quarter products are the latter two uses. The supplying of industrial and decorative textiles products have a relative shortage.

2.2 Vertical structure of the industry chain is not conducive to industrial efficiency

From the point of vertical industrial chain, the developing of our country's clothing in each part turns imbalance. The whole frame structure presents pattern as an olives. That is, the production and processing in the middle link turns the

more obvious advantages, while at both ends of the design and brand marketing ability is relatively weak. In the international division system of labor in present stage, the developed countries increasingly focus on the two ends of textile industry chain day by day. That contains the front-end production of raw materials and product R & D as well as the deep-end processing and marketing channels. While the developing countries, including ourselves, who are subjected to the double squeeze by developed countries have been placed into the central where express value-added profits and low technological content. From the development path of world famous products, in order to achieve industrial upgrading, we should carry out the original design manufacturing (ODM) and own-brand manufacturing (OBM) approach.

2.3 Competitive pressures of foreign clothing

To enter the Chinese market of foreign brand, most of them sustain trade in several decades or a century. The brand image and brand culture thorough public and earn the favor of customers. In contrast, Chinese clothing brand not only exist an obvious weakness of the price in the culture of branded, but also has no obvious superiority in the cost of brand clothing. Many international brand-name commodity prices are usually below the thousand dollars, while the price of domestic brand obviously higher than the international brand that is because of the relative single of the sales channels and the retail operating costs are higher. The design of international brand link with the market closely. The brand design of our country generally diversified in the work room of the whole country. There are some distance between the designer and the production line, which resulting in the slower update of products.

3. Clothing industry is entering a critical period of structural adjustment

According to the general trend of development of textile industry in the globalization and the objective need of building a well-off society in our country, textile and clothing industry has entered a crucial period of industrial restructuring.

First of all, in the international market, the global textile market is undergoing significant changes. Low-end manufacturing countries of multinational industry chain become more competitive. In the industry value chain, the "smiling curve" continuously downward, which means the move of profit from manufacturing to R & D design and brand marketing chain or upstream and downstream chains will continue. At the same time, a number of emerging developing countries are more advantages in low labor costs, crowding out the overseas markets Chinese textile products. Middle East Europe, Southeast Asian and other countries and regions with cheaper labors and geographic advantage in closer to the main consumer market, have been constituted a strong competitive pressures on Chinese textile and clothing exports. Chinese textile products such as labor and land which have international comparative advantage are gradually lost. In the domestic market, textile and clothing industry is also facing a test. The contradiction of relative excess supply of low-end products is always existing, increased exports pressure will force enterprises to shift to domestic market, thus to further aggravate the competition in domestic market.

Secondly, the constraint of resources and the environment strengthens day by day. At the international level, environmental protection, green and circular economy has already started in the leading developed countries. In China, the conflict of textile and clothing industrial structure resources, energy and environment have becoming prominent. The requirement of energy-saving emission reduction, environmental protection and social responsibility is increasingly day by day, which is in order to carry out the scientific development in textile and clothing industry. All of these take the larger restriction to the extensive development. The trend of raising the costs of raw materials and elements becomes irreversible. In recent years, with a relative shortage of labor supply and the upward pressure on wage costs, the clothing industry which is characteristic by the labor-intensive is facing great pressures on cost. The use of foreign traders to Chinese cheap labor and resources has brought a large number of negative "externalities" to our energy consumption and pollution; the foreign companies can not undertake these costs.

4. The measures of structure adjustment in clothing industry

First, it is necessary to follow the market trend to adjust product structure. Response to the changes in international and domestic demand, the domestic textile and clothing enterprises should be based on "multi-channel and diversity" as a response to market demand, ensure that there are both domestic sales and changes in the international market. And actively nurture and develop domestic market in the situation of changes in the international market. Ensure that clothing can keep up with fashion and continuously adjust the product mix according to color, pop style and popular fabric. Focus on upgrading cultural content ,scientific and technological content of clothing products; pursuit of more superior, brand of clothing taste; and of fashion, personal style; use of novel and a variety of clothing fabrics to achieve high security, high environmental protection clothing quality. Use more of new clothing materials, new techniques and new technologies, strive to develop and produce new varieties of clothing. Develop new production of clothing by using more of colored cotton, nano-materials and new fiber fabrics of better feel, more comfort, wrinkle resistant, easy-care and better moisture absorption, silk fabrics, as well as high-grade coating, foam flower, flocking, sanding, embroidery, rolling light fabrics.

Second, increase the supply of technology and the level of talent. Focus on improving the technical and human

resources capacity and the level of supply, establish a stabile science and technology team with professional layout, education level, age level and reasonable title structure, and distribute and keep people by reforming distribution. For the industry itself, the entrepreneurs must improve their own quality and invested a large amount of money for operators and technical personnel training, so that they have more opportunity to charge themselves and so as to change the company into a truly learning-oriented enterprise. Speed up the establishment of enterprises as the master of technological innovation system to enable enterprises to become the truly main decision-making of technological innovation.

Third, the clothing industry has a trend of polarization to very large or ultra-small. Therefore, we must encourage the enterprise with deep foundation and a certain scale to attract foreign investment, prompt the foreign talent, accelerate the introduction of technology and technological transformation; to encourage the reorganization of assets, joint ventures internationally of renowned brands, take the united way to expand the enterprise scale, enhance its strength. Set up large, cross-regional, transnational clothing enterprises gradually. Encourage small and medium enterprises through technological innovation, with rapid response capabilities, achieve more flexible varieties of small batch production mode and ongoing market segmentation to improve the professionalism, the capacity of supporting large enterprises of small and medium enterprises and promote the upgrade of competitiveness. Enterprises should also determine their own business model according to its own characteristics and advantages.

Fourth, change the development of competing methods and the relationship between enterprises. Textile and clothing enterprises must change production-expansion-based development into development based on core competitiveness enhancement. Products trade growth should depend on from the past too much reliance on price competition to quality, brand, design occupation of the world textile and clothing market share, relying on the technology and brand to enhance the added value of products, but also to speed up the innovation of operation and management, to achieve the changes of textile and clothing industry from quantity to quality.

Fifth, the government should make great efforts to create a fair and efficient market environment. Make efforts to improve the situation of unfair competition between different regions and enterprises which caused by the imbalance of Labor and Social Security, environmental protection and other laws and regulations to implement, to avoid low-level inter-regional competition and non-standard market. By strengthening management and reasonable divert, guide, planning and fostering the growth of textile and clothing market.

Sixth, accelerate the brand building with Olympic Games, World Expo and other international activities. Li Yining, a well-known economist, recently pointed out that the margin between Chinese clothing industry and other countries' is that there are no major brands in China, which is base on the technical.

Nowadays, clothing has been used not only for the lives of consumption, but also a cultural and fashion product. After the majority of consumers have said goodbye to the food and clothing consumption level, China should speed up the transformation of the concept to the clothing industry. The clothing manufacturing industry should be "upgraded" to a new field such as "cultural fashion industry" from the simple ideology. It is a real breakthrough of structure adjustment of clothing industry under this base in China. To sum up, the problem of structure adjustment in clothing industry has to be solved during process of industrial development. The financial crisis is a new chance of us to realize the adjustment and transformation.

References

- Fu, Baozong. (2008). Six ways of restructuring and upgrading to textile and clothing industrial. *China Investment*, No. 6, 114-115.
- Li, Min & Mao, Tingting. (2009). Apparel industry upgrading under financial crisis. *China Textile Leader*, No. 7, 25-26.
- Li, Shixi. (2009). The current strategic choice taken through the SWOT analysis of Chinese clothing industry. *Manager Journal*, No. 10, 278.
- Mu, Zi, & Li Yining. (2009-02-13). ULW patterns of Chinese clothing. *China Textile Newspaper*, (5).
- Qiu, Xiaowen. (2009). Development Strategy of Chinese small and medium-sized textile and clothing enterprises. *Enterprise Economy*, No. 5, 143-145.
- Wang, Haifeng. (2009). Chinese textile and clothing industry entered into a period of strategic adjustment in 2009. *Intertrade*, No. 2, 9-12.
- Zhang, Chaoying & Yang, Nana. (2009). Brief talk on difficulties of Chinese textile and clothing industry. *Manager Journal*, No. 5, 32.

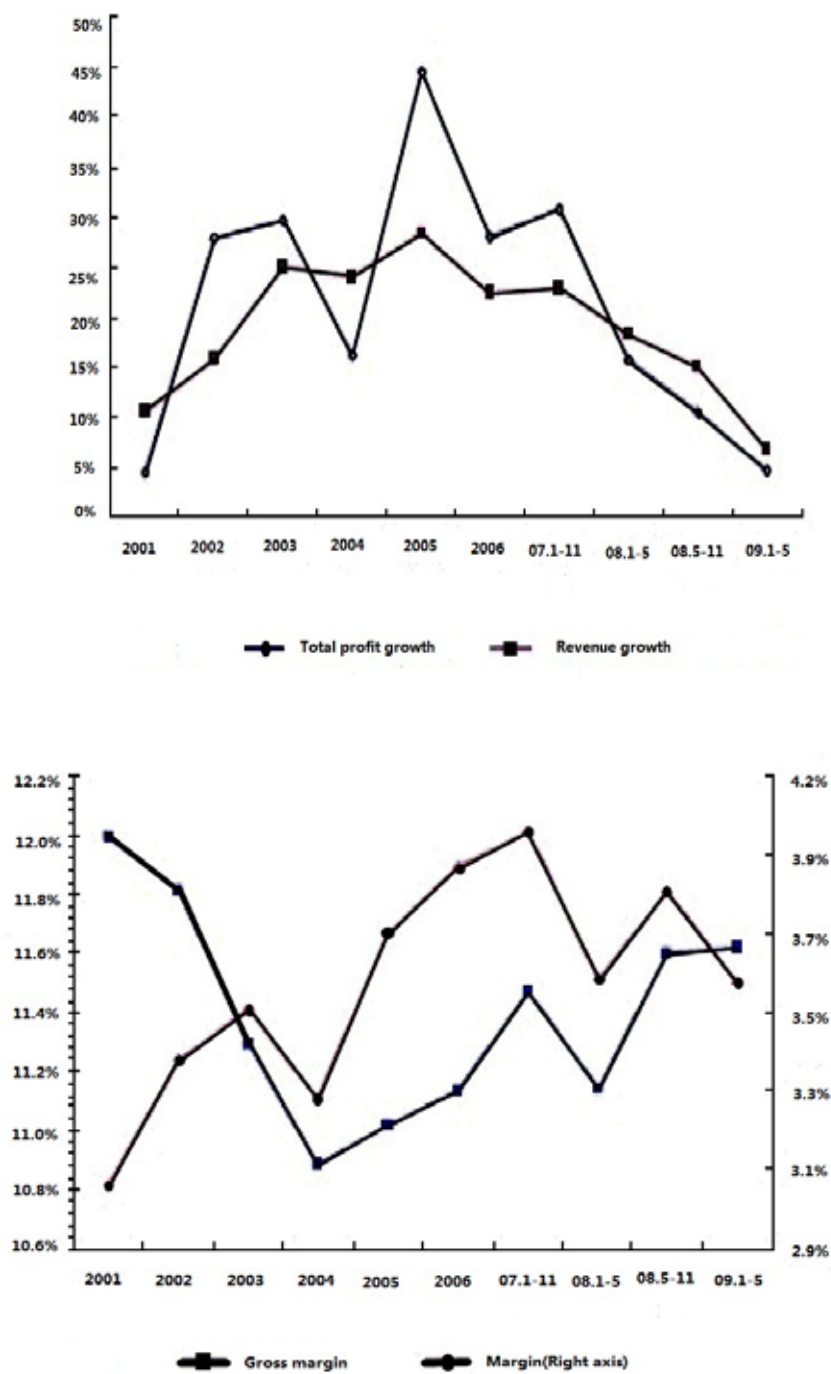


Figure 1. The situation of industry revenue, profit and gross profit margin, profit margin

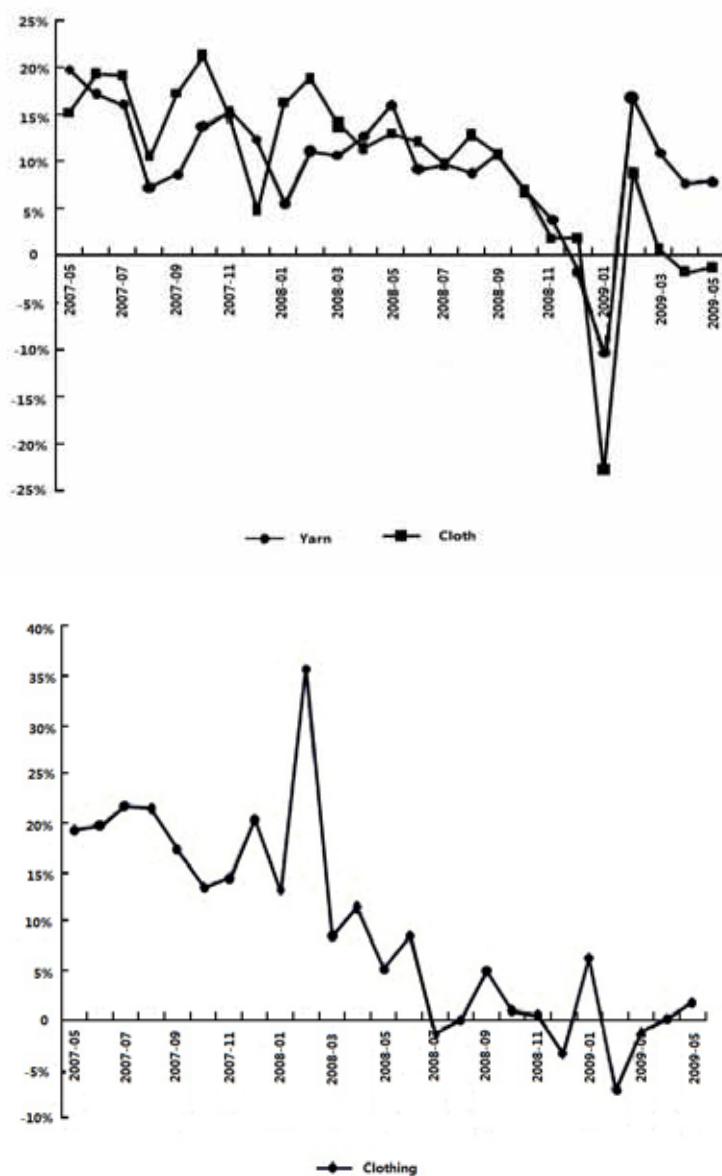


Figure 2. The main products growth in a single month



Analyzing the Theoretical System of Socialism with Chinese Characteristics

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Abstract

It was mentioned in the report at the Seventeenth National Congress of the Communist Party of China (CPC) that the root causes of what we have achieved since the implementation of the reform and opening up policy are, in conclusion, that the road of socialism with Chinese characteristics has been created and the theoretical system of socialism with Chinese characteristics has come into beings. The theoretical system of socialism with Chinese characteristics is a dynamic historical process and by now it has experienced three stages. Since the implementation of the reform and opening-up policy, it has become Chinese Marxism and expanded Marxism in three aspects of socialism, party and development. It has summed up thirty's practice and experience of implementing reform and opening up policy and made a theoretical summary. Therefore, it has become the guide to building the road of socialism with Chinese characteristics and the CPC's guiding ideology.

Keywords: Deng Xiaoping Theory, Important Thought of Three Represents, Theoretical system of socialism with Chinese characteristics

The root causes of what we have achieved since the implementation of the reform and opening up policy are, in conclusion, that the road of socialism with Chinese characteristics has been created and the theoretical system of socialism with Chinese characteristics has come into beings.

1. The theoretical system of socialism with Chinese characteristics is a dynamic historical process and by now it has experienced three stages.

The first is, from the 12th National Congress of the CPC to the 15th National Congress of the CPC, Deng Xiaoping Theory stage. At the 12th National Congress of the CPC, Deng Xiaoping said, "go our own way and build socialism with Chinese characteristics". As what is socialism with Chinese characteristics and How to build it, he did not explain in detail. The 13th National Congress of the CPC, according to comrade Deng Xiaoping theory of building socialism with Chinese characteristics, proposed thirteen points as to what is socialism with Chinese characteristics. The 14th National Congress of the CPC further raised the concept of comrade Deng Xiaoping Theory of building socialism with Chinese characteristics. The 15th National Congress of the CPC named the theory of building socialism with Chinese characteristics as Deng Xiaoping Theory. In other words, Deng Xiaoping Theory is the theory of building socialism with Chinese characteristics.

The second is, from the 15th National Congress of the CPC to the 16th National Congress of the CPC, the stage of the Important Thought of Three Represents. The 16th National Congress of the CPC hoisted the Important Thought of Three Represents to be the CPC's guiding ideology, and the theory of building socialism with Chinese characteristics has different value from Deng Xiaoping Theory. In the report at the 16th National Congress of the CPC, theory of building socialism with Chinese characteristics actually included the Important Thought of Three Represents. After the 16th National Congress of the CPC, three Chinese characters were omitted and theory of building socialism with Chinese characteristics becomes "theory of socialism with Chinese characteristics".

The third, from the 16th National Congress of the CPC to the 17th National Congress of the CPC, is the stage of the Scientific Outlook on Development. Since the 16th National Congress of the CPC, a series of important strategic thoughts such as scientific outlook on development, building a socialist harmonious society, etc have been put forward.

To sum up, the theoretical system of socialism with Chinese characteristics raised at the 17th National Congress of the CPC includes such vital strategic thoughts as Deng Xiaoping Theory, the Important Thought of Three Represents and the Scientific Outlook on Development and other major strategic thoughts. This new conclusion becomes one of the great contributions at the 17th National Congress of the CPC. It is a historical process in the same tradition.

2. Theoretical system of socialism with Chinese characteristics has become Chinese Marxism since the implementation of reform and opening up policy.

Comrade Hu Jintao pointed out that the theoretical system of socialism with Chinese characteristics is an open one, which develops unceasingly. Since the Communist Manifesto was published, about 160 years of practice has proved that only by combining with the national conditions of China, progressing with the times and sharing joys and sorrows of life with the people, can Marxism demonstrate strong vitality, creativity and inspiration force. This shows that the theoretical system of socialism with Chinese characteristics is an open system advancing with the times and can be able to continuously absorb the latest achievements of Chinese Marxism. An open theoretical system will not rigidly adhere to rules, and is not frozen in the dead theories. It does not worship the books either. A developing theoretical system is not conservative. It will change with the times and conditions to obtain innovation and development. Historical process of China's revolution, construction and reform has repeatedly shown that Marxism is not a dogma but a guide to action. Only by combining the basic principles of Marxism with the specific national conditions of a country, and the real needs of developing the causes of the CPC and the Chinese people, can the theory be developed continuously and the Party be armed to unite and lead the whole Chinese people to success. The fact that the theoretical system of socialism with Chinese characteristics has a strong vitality lies in that it does not only adhere to the basic principles of scientific socialism, but also gives it distinct Chinese characteristics in accordance with China's reality. In contemporary China, to adhere to the theoretical system of socialism with Chinese characteristics is to really abide by Marxism. With the further promotion of the reform and opening up policy and the increasing development of building socialism with Chinese characteristics, and the CPC's further understanding of the ruling law, socialist construction law and the development law of human society, the theoretical system of socialism with Chinese characteristics will surely continue to be interpreted from more new perspectives, to be continuously enriched and get fully developed.

3. The theoretical system of socialism with Chinese characteristics has expanded Marxist theory in three aspects of socialism, party and development.

Adhere to the Marxist ideological line, the Communist Party of China has constantly explored and sought the keys to some major theoretical and practical issues, for example, what is socialism and how to build socialism, what kind of Party it is to build and how to build it, what development it wants to realize and how to realize it, and so on, continuously pushed forward Chinese Marxism, upheld and enriched the Party's basic theory, basic line, basic guiding principles and basic experience. This shows that the theoretical system of socialism with Chinese characteristics bears the distinctive feature of innovation. I think people should in the aspect of the distinctive characteristics of the communists embodied in this theoretical system, in the great practice of guiding the reform in the new era, from the perspective of realizing the sublimation of ideological theory, understand and grasp the latest achievements of Marxism in China. The first great sublimation lies in continuously exploring and giving answers to the questions of what is socialism and how to build it. The CPC, from the new period of setting things right to the period of overall reform and opening up, has created a new situation of building socialist modernization. During this process, Deng Xiaoping Theory has been established, and a series of such fundamental issues that the CPC has in the primary stage of socialism as the vitals of rejuvenating China, the foundation for China and the strategy to strengthen China, have been distinctly put forward. The second great sublimation lies in constantly exploring and giving answers to the questions of what Party to build and how to build it. With the Important Thought of Three Represents advocated by comrade Jiang Zemin as a mark, the CPC deeply understands and grasps the changed conditions of the world, the country and the party organization in the new historical environment. It further settles the issues of what socialism is and how to build it. Meanwhile, it creatively answers the questions of what party to build and how to build it, thus clearly defining the new historical position of CPC. From the angle of adhering to the Important Thought of the Three Represents it proposes the contemporary programs of upholding and developing the Party's advancement and improving the Party's ruling capacity and a series of essential issues, namely, the foundation for building the Party, the cornerstone for its governance and the source of its strength. The third great sublimation lies in constantly exploring and answering what development to realize and how to achieve it. With the Scientific Outlook on Development proposed as a mark, the Party Central Committee with comrade Hu Jintao as general secretary, scientifically sums up the important experience of implementing the reform and opening up policy and development, accurately grasps the historical requirements of building an all-around well-off society in the new century and new stage, puts forward important strategic thoughts of Scientific Outlook on Development and of constructing socialist harmonious society, which hoists the issue of development to the high level of people first, displaying fairness and justice, achieving all-round growth of people and overall social development and the sustainable development of resources and environment. In this process, a series of essential problems such as the foundation, method, and law of development are clearly put forward. In the new era the

Party's three great sublimations in theoretical understanding have been continually promoting Marxism in China to a new real.

4. The theoretical system of socialism with Chinese characteristics is the experience summary and theoretical generalization of three decades of implementing reform and opening up policy.

Broadly speaking, there are 15 theories, namely, (1) theory of primary stage of socialism, (2) theory of socialist reform and opening up, (3) theory of socialist market economy, (4) theory of socialist nature, (5) theory of basic economic system in the primary stage of socialism with the public ownership as the dominant role and the mutual development of diversified ownership economy, (6) the theory that science and technology are the primary productive forces, (7) theory about development of scientific socialism, (8) theory of socialist harmonious society, (9) theory of socialist democracy and the rule of law, (10) theory of building socialist spiritual civilization, (11) theory of socialist peaceful development, (12) theory of going the way of national defense and building the troops with Chinese characteristics, (13) theory of "One Country Two Systems" and peaceful reunification of China, (14) theory of building Marxist party, (15) theory of independent foreign policy.

This theoretical system runs through philosophy, political economy, scientific socialism and other fields and involves in economy, politics, science, technology, education, culture, ethnics, military, foreign affairs, united front, China reunification, Party building, and so on. It does not only get rid of the dogmatic understanding of Marxism, but also resists the false claim of abandoning the basic system of socialism. It does not only uphold the basic principles of scientific socialism, but also bears distinctive features of the times and Chinese characteristics. It does not only inherit the predecessors, but also break the stereotypes. It opens up a new realm of Marxism and becomes the latest development of Marxism.

5. The theoretical system of socialism with Chinese characteristics is the guide to build the road of socialism with Chinese characteristics. It also becomes the Party's guiding ideology.

The road of socialism with Chinese characteristics is to, under the leadership of the party and on the basis of the fundamental national conditions, take the economic construction as center, adhere to the four cardinal principles and reform and opening up policy, liberate and develop social productive forces, consolidate and improve the socialist system, build socialist market economy, socialist democracy, socialist advanced culture, and socialist harmonious society in order to achieve a prosperous, democratic, civilized and harmonious modern socialist country. The reasons why the road of socialism with Chinese characteristics is absolutely right and can be able to lead China to great development and progress lie in that we Chinese people do not only stick to the basic principles of scientific socialism but endow it with distinct Chinese characteristics in accordance with the reality of China and time features. In contemporary China, adhering to the socialist road with Chinese characteristics is literally upholding socialism.

References

(2007. 10. 21). Communist Party of China Constitution.

Gao, Fang, Li, Jingzhi and Pu, Guoliang. (2008.08). The theory and practice of scientific socialism (5th ed.).

Hu, Jintao. Holding high the great banner of socialism with Chinese characteristics and struggling to win new victories in building an all-around well-off society.

Selected Works of Deng Xiaoping (1st ed.). (1993). People's Publishing House.

Selected Works of Mao Zedong (2nd ed.). (1991). People's Publishing House.



Historical Origins of Landscape Painting and Chinese Gardens

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Abstract

Ancient Chinese landscape painting and landscape garden have very close historical ties. Knowing the relationship helps us to further understand the development process of the two. By analyzing relatively independent dynasties, this text expounds in detail the process of their birth, growth, prosperity and mutual influence, which helps to clarify the context of their development and understand the inevitable occurrence of some relevant historical trends.

Keywords: Landscape painting, Landscape garden, History, Context, Development

Chinese landscape painting and Chinese landscape garden, as a part of Chinese social and cultural life, are supported and controlled by the overall culture of Chinese society (the total of the material and spiritual civilization created in Chinese historical practice). Only after understanding the historical process of the social development and overall culture, can we have the opinion of some inevitability of the creation and development of the two artistic forms. As an artist or a designer, not knowing the cultural context, his artistic ideas and design concepts will be discountable due to lack of cultural inheritance and logic thinking. Only by constantly exploring the law of synchronous progress of the two artistic forms, can he or she be free to go into the kingdom of art.

1. Rudimentary period of Qin and Han Dynasty

Chinese garden art has a long history and can be traced back to ancient times. So far it has been three thousand years since the earliest recorded in history of Lingyu of West Zhou Dynasty in 11th century before Christ, which was a place for the ancient emperors and noble people for hunting and recreation. A garden for recreation can cost a considerable manpower and resources. Therefore, only when a society develops to a certain degree, can the garden be likely to be constructed. After Qin kingdom conquered the other six kingdoms, it set up the Sanglin Garden on the south bank of Wei River, which spread to hundreds of Chinese Li. In the Western Han Dynasty, it was further expanded on the basis of Qin's scale so that a vast area to the south of Chang'an city belonged to emperor Wu. During his period, Shanlin Garden was expanded again and man-made mountains of Penglai, Fangzhang, Yingzhou were put in the garden to symbolize the holy mountains in East Sea. And the style of building gardens by simulating sea fairy realm has gradually become the basic model of managing water in Chinese gardens. It even has produced considerable impact on Japanese gardens. In the late East Han Dynasty, the garden patterns tended to be casual, and gradually turned to a freer layout instead of the symmetric way. Meanwhile, a new form of architectural modeling began to emerge.

By then, landscape painting, as a painting genre, had not got independent of the ancient art of painting yet. It was merely treaded as the background or context for dealing with the figure of story paintings of some artifacts or rock carvings. However, due to the admiration for the natural landscape, consciousness of inner cultivation with mountains as morality and water as temper or character had began to germinate and became the main line of Chinese landscape painting.

2. Period of establishment—Wei Dynasty, Jin Dynasty, North and South Dynasties

In the period of Wei Dynasty, Jin Dynasty, North and South Dynasties, there appeared intense competition or struggles among the ruling class, and the kingdoms were completely in chaos and the society was unrest. However, it was also the period full of comparatively free thoughts, rich wisdom and creative spirit in arts. The political instability and changeable life resulted in literati's pessimism. However, the migration of Jin court to the south made the intelligentsia and literati touch the beautiful landscape of the south China. They pursued the odd and enjoyed the places of interests. Enjoying the landscape and visiting the most famous places became the indispensable part of life of literate strata. Some

even spent the whole life in nature, never regretted to end their life in the wild life. At the same time, painters began to indulge themselves in nature, copied the landscape, solitarily enjoying themselves to their heart desire. And the landscape paintings with expressing natural taste as the theme finally got rid of being taken as the background of figure paintings, and became an artistic genre and began to grow. According to historical records, in and after Liu Song court of the South Dynasty, some landscape painters such as Zongbing, Wang Hui, etc, specialized in landscape painting, had gradually turned up. At the same time, because people loved and admired nature, gardening art of this period has also been got enough developed. At that time, building gardens became fashionable. Particularly, such private gardens had also been developed considerably, as Zhang Wei's Hualin Garden in North Wei Dynasty, Shi Chong's Jingu Garden in West Jin Dynasty, etc. Although these private gardens in artistic grandeur were no better than those royal gardens, according to records, the beauty of natural landscape could be praised more than enough. At the same time, with the introduction of Buddhism, temple garden as a new form began to appear and achieved localization. It can be said that in both quantity and quality, landscape paintings and landscape gardens had already been set up as a separate form of artistic expression.

3. Development period—Tang, Song and Yuan Dynasties

After nearly 300 years of turmoil, political regime got reunited in Sui and Tang Dynasties. Because economy was recovered faster, cities and royal court buildings also began to develop. Emperor Wen of Sui Dynasty had Guangdaxingyuan built in Daxing city. Later, Emperor Yang had West Garden set up in his east capital of Luoyang. Private gardens in Tang Dynasty were in boom too. Nobles and officials had their gardens built within the capital, most of which were concentrated in the southeastern Qujiang area. In addition, there were many private gardens in the capital's eastern and the southern suburbs. The east capital Luoyang, as the provisional capital, was also the place for nobles and high officials to build parks or gardens. Tang Dynasty's natural landscape parks have also been developed. Good cases in point are Wang Wei's "Wangchuan Villa", and Bai Juyi's cottage in Lushan Mountain. Both were manually built in the context of the scenes in the natural scenic spots.

In the early Tang Dynasty, landscape painting developed slowly. It was only after the prosperous period of Tang Dynasty that it grew at a great leap and there appeared such famous painters as Li Sixun, Li Zhaodao, Wang Wei, etc. Realistic traits and creativity of landscape painting was greatly enhanced and continuous progress was made in techniques. A variety of styles and genres began to emerge. Ink Landscape painting and colored landscape began to go completely different way. In particular, the ink landscape attracted more and more eyeballs for its aesthetic value and began to develop independently to become prosperous.

The separation state in the period of Five Dynasties and Ten Kingdoms greatly destroyed society and economy, which made some southern cities become the centers of politics, handicrafts and business. For example, Suzhou, a place in Wu and Yue Kingdoms was one of the cities where building gardens was in a great fashion. In addition, Guangzhou, far in the south China also had built a number of gardens. Landscape painting in Five Dynasties and Ten Kingdoms got further improved on the basis of what had achieved in middle and later Tang Dynasty. Jing Hao, Guang Tong, Dong Yuan and other great artists appeared one after another, which indicated that ink landscape painting went into an unprecedented golden age of art. Artistically, it deeply tapped the emotional implication of nature and arrived at the realistic realm owing to great painter's creative techniques.

Song Dynasty ended the separation state of Five Dynasties and Ten Kingdoms. The ruling class people were more voluptuous and pleasure-seeking, so more gardens were built. Song gardens were more concentrated in Bianliang, the east capital, and Luoyang, the west capital. Royal gardens were mostly in Bianliang, the capital of the North Song Dynasty. Luoyang, the west capital of Song Dynasty had smaller number of gardens compared with Bianliang. Actually, they were still in considerable amount. In the famous picture of "Noted Gardens in Luoyang" painted by Li Gefei, it was recorded that there was more than twenty four royal gardens. Officials of Song Dynasty had especially strong sense of natural landscape. Seeking pleasure in landscape paintings became a universal psychological tendency. Apart from enjoying the material life, indulged in natural scenes and traveling became fashionable for the bureaucrats, the gentry, common landlords and scholars. Therefore, the landscape paintings reflecting natural beauty became unprecedented prosperous. The landscape painting of Song Dynasty had developed to a high degree of maturity. Its techniques were constantly enriched and the style became more diversified. In a word, the artistic achievement has surpassed the previous generations. As what Song people remarked, "techniques of landscape paintings in Song Dynasty was the best in history".

After Yuan Dynasty conquered the South Song Dynasty, China began to be ruled by foreigners. Ethnic and class contradictions were getting fiercer. As economy was in stagnation, little progress was made in garden construction. In addition that the rulers changed Jindaning Palace into Taiye Pool and Wansui Hill and made it the forbidden garden of the royal palace, there were few other activities of building gardens. There were a small number of private gardens in Dadou, that is, Beijing, capital of Yuan Dynasty. Compared with the decline of the garden architecture, there emerged some new changes in the ink landscape paintings due to the political and ideological pluralism. As to the traditional

succession, there are two sources of systems. One is mainly from Mr. Dong and Mr. Ju of the Five Dynasties and the other is after Mr. Li and Mr. Guo of North Song Dynasty. There are a small handful of non-literati painters who pursue the tradition of Mr. Ma and Mr. Xia of South Song Dynasty.

4. Mature period—the Ming and Qing Dynasties

During 270 years of reign by the Ming Dynasty, due to the economic recovery and development, garden and garden architecture got new growth. Nanjing was the capital of the early Ming Dynasty. Emperor Chengzu moved his capital to Beijing and began to rebuild the city. And Taiye Pool was opened up to the south and formed into three lakes, the North Sea, the Middle Sea and the South Sea. It was considered to be the principal royal garden with the name of West Garden. By the middle period of the Ming Dynasty, due to the faster development of agriculture and handicraft industry, gardening became popular again. In this period, building gardens were mainly concentrated in Beijing, Nanjing and Suzhou. Suzhou at that time was a common city but it had very developed agriculture and handicraft industry, thus it was the richest economically. Many landlords and bureaucrats built their private houses and gardens there, which once came to a climax of garden construction. Many of the existing gardens, such as Zhuozheng Garden, Liu Garden, etc. were initially built during this period. Because of the political unity of the early Ming Dynasty, the painting aesthetic standard tended to be normalized. In artistic practice, it stressed the tradition, abided by the established rules or regulations, and allowed integration and imitation to pursue re-prosperity, expansion and reform in the rigid inheritance. Painters' artistic pursuit in their creation reflects their intent by systematically integrating the previous cultural achievements and re-displaying the essence of traditional techniques at the contemporary times. After the middle period of the Ming Dynasty, with economic development in the south of China, the artistic school of Wu Daozi was dominant in the field, which changed the phenomenon that narrative paintings were more than creative paintings. And some unique painters emerged. Particularly, a lot of different forms were derived from the ink painting style and techniques. At the same time the ink painting began to suit both the refined and popular tastes.

After the Ming Dynasty, building gardens in the Qing Dynasty obtained considerable development and arrived at climax in the Kangxi and Qianlong period. There were no less than ten royal gardens of Qing Dynasty in Beijing. Within the city gardens were further rebuilt or repaired on the basis of West Garden of the Ming Dynasty and more buildings were added to make it perfect. Royal gardens of the Qing Dynasty were more in number and larger in scale than those of the Ming Dynasty. Qing Dynasty is the most prosperous period in history of garden building. Private gardens were more in cities of Yangzhou, Suzhou, Wuxing, Hangzhou and the Pearl River Delta as well. Emperor Qianlong once on his way of tour to the south passed Yangzhou. At that time gardens of local officials could be seen along both sides of road from the Slender West Lake area to Pingshantang. Meanwhile, Suzhou also had a number of gardens built or rebuilt. According to statistics, there were more than 100 gardens of different sizes left in the early period of new China. Those still retained intact belong to the Late Qing Dynasty. As to the landscape painting, after the Yuan Dynasty, trend of thought about literati painting was in flood and fine brushwork of landscape painting was neglected by the expert artistic form. Jiehua was considered to be worldly or even vulgar and had low status in painting. As a result, fewer and fewer people worked on it. In the period of Kangxi and Qianlong of the Qing Dynasty, some painters were reluctant to be controlled by the trend at that time. Regardless the bad reputation they would have, they tried their best to save the fine brushwork of landscape painting and Jiehua out of the artistic dilemma to open a new situation. They made different contributions to the continuation and development of traditional art, but they could not get attention from the scholar-bureaucrat and their achievements were almost submerged by the strong literati paintings.

5. Conclusion

Hegel, a great German philosopher, once said, "all arts belong to a certain time and a certain nation, has their special context and depends on a certain history and the concept and destination". Chinese nation, in the process of long historical development, relying on this piece of vast land, abundant in resources and rich in fertile soil with various landscape scenes, has gradually formed the social phenomena and ideology with Chinese native features, the unique and complete universal outlook, world view, concept of values and cultural view which restrict and influence one another. Influenced by them, Chinese arts with the features of Chinese culture, such as Chinese landscape painting and classical Chinese landscape garden, begin to grow in the fertile soil of Chinese culture. Just like two different flowers on a vine, they have developed to be the first in the world with their dazzling brilliance in their respective field and produced a very far-reaching impact on the arts all over the world.

References

- Chen, Zhi. (2006.08). *History of Chinese garden construction*. China Architecture and Building press.
- Yu, Jianhua. (1957). *Chinese painting in classification*. People's Fine Arts Publishing House.
- Zhang, Qiang. (2005.02). *China's landscape painting*. Henan Fine Arts Publishing House.
- Zhou, Weiquan. (1990). *History of Chinese classical gardens*. Tsinghua University Press.



Role-play in English Language Teaching

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Abstract

Role-play is an effective technique to animate the teaching and learning atmosphere, arouse the interests of learners, and make the language acquisition impressive. So this research will mainly focus on how to apply it successfully and take the most advantage of it in English class. The outcome shows there are four crucial factors for its success: the topic chosen should be real and relevant; the teacher need 'feed-in' the appropriate language; correct errors in a proper way; some of teachers role are facilitator, spectator or participant. Incorporating role-play into the classroom adds variety, a change of pace and opportunities for a lot of language production and also a lot of fun!

Keywords: Role-play, Procedure, Feed-in

The main elements of Communicative Approach usually appear as three steps in classroom teaching: 1) presentation 2) practices 3) production. Applied to the third period, one of the effective practice is role-play, which emphasizes much on the comprehensively performance of the target language. While many researchers proved this means to be useful, many second language teachers still address to researchers: how to take most advantage of role-play and how to make a balance between it and the normal presentation of class room teaching? The research followed is an attempt to answer such questions by analyzing several related researches and some empirical evidence.

1. Related research

From the discussion of communicative teaching methodology, we can find that the function of language is not elicited from the forms of language, but its obligatory contexts .the contexts may be various; however, the forms of contexts still have some regular patterns to follow. D.Wilkins (1976) thus raised the notional syllabuses, which arranged teaching program mostly on the basis of contexts instead of being limited by the forms of sentences .to apply to the teaching contents to the desire of language application, communication becomes a widely used technique. According to it, Wilkins put forward the issue of role-play, which is actually an imitation the reality .the students are required to speak properly in line with the contexts and their "roles". The whole procedure is as follows:

When organizing the practice of role-play, the teacher must provide a context and several roles for students to prepare and then perform in the class. The performance can be developed by several groups. When one is performing, the other students are audience and discuss its advantages and disadvantages afterward .the discussion itself is also a kind of practice.

Empirical evidence derived from Wilkins' research and theories proved that role-play is an effective technique to animate the teaching and learning atmosphere, arouse the interests of learners, and make the language acquisition impressive.

Wilkins had proposed the general figures and theories for role-play, while some further researches were applied for this subject by the other researchers; more problems were thus raised to be solved afterwards.

Fraser, Rintell, and Walters (1980) proffer role-play as a useful means to study learners' pragmatic competence. Therefore, many contextual features are important in determining how a speaker will behave .in a role-play; the speech act can be kept constant while the contextual features are varied. Many dimensions of a learner's pragmatic competence may be explored in this way .in Fraser, Rintell and Walter's procedure; they also used role-plays with puppets when the subjects have been children.

From the two theoretical and empirical studies, we can get general concepts of role-play. Some further and more concise issues may be raised by the research as follows:

The purpose of role-play that applies to practical usage in communication demands the flexibility of participants' words, generally speaking, the more approximately the activity access to reality, the more interests students will take in .so the choice of roles and contexts become very important. When teachers design a role-play, they must take students' ages and experience into consideration.

To sum up, the studies recited above presented the general research for role-play and affirmed the positive effect of role-play, which is proved to be useful in communicative teaching method .The lack of findings on this subject may be due to the fact that they did not give particular illustration for the regulation of the relationship between the teaching roles and learning roles. In this activity, students obviously played a center role. However, teachers should be a surveyor and control the whole situation in order to make class going on smoothly. And how can teacher control the procedure successfully? And how should teachers do when some negative things appear? My proposed study will try to provide some empirical evidence for solving such problems.

2. Methodology

2.1 Research questions

The proposed study addresses the following research questions.

- 1). In the procedure of role-play, how will the teachers do if the situation is "out of control"?
- 2). Shall the errors made by students be corrected in time?
- 3). If students discuss in native language without being aware of it, shall teachers correct him or not?

2.2 Method

The subjects of this study would be 30 Chinese freshmen learning English as a foreign language. They belong to one whole class.

The experiment would take two 50-minutes classes. During the procedure, the students would be divided into ten groups, each one including three students.

Each group would be given a topic. In order to make a comparison, every two groups will share the same one.

For the first class, teacher will take 10 minutes to explain the rules for this activity and make the previous work such as dividing the students into different groups and distribute topics to each group. Students thus will get information about the activity but not be told the experimental purpose of this experiment. And then they would have 15-20 minutes to prepare.

For the rest of the time, except for the break, each group has 5 minutes to present themselves in front of the class. When one is performing, the others would watch and record their comments for the player's advantages and disadvantages.

After that the last twenty minutes would be taken for discussion. From the discussion, both the teacher and the students would get an impressive comparison for each counterpart groups.

2.3 Proposed procedure

The practice of students' performance actually took 60 minutes .so there were thirty minutes left for the discussion. Generally speaking, this experiment gets its anticipated outcomes.

Topics given to the students were as below:

Situation one: Several freshmen are talking about college life and their majors. All of them are unsatisfied with their major to some extent.

Situation Two: John, one of your classmates, has been sick in hospital for quite some time. Now he is going to be back to school. You and your partners are talking about giving him some help with his missed study.

Situation three: you and your partner are from different parts of China. You are talking about the difference between your hometown and your university.

Situation four: shopping

A finds a pair of jeans whose design and color are exactly to his/her taste. A likes it very much but thinks it's too expensive. So A bargains with B, the salesperson, hoping to get some discount on the price.

The four topics are familiar to young students' life experience and have little limitation for speakers' words. Students could bring into full play of themselves with their own knowledge and experience .So the whole class went successfully.

3 Results

3.1 Vocabulary

From the performance, students consciously applied the vocabulary from the presentation of new lessons. The effect of memorization and application of new words is proved better than single practice of recitation.

Almost 21 students (70%) applied the new vocabulary freely during the procedure. As for the four topics, they are real and relevant to the students' life and all provide enough flexibility for students to imagine.

Occasionally, they would rely on Chinese to express some difficult meaning.

3.2 Grammar

The students avoided the limit of "formal speech" by taking lifelike forms in their conversation, e.g. elliptical sentences, repetition, exclamatory sentences, etc.

Some errors occasionally occurred. Those serious grammatical errors were corrected by the teacher immediately or by the students in the afterward discussion. Some slips of tongue were neglected while the speaker himself was aware of it.

3.3 Communicative purpose

Without rigid limit of word application, students had much space to bring their imagination and intelligence into full play. About 80% (24 students) can communicate freely and fluently in English in this way. However, the accuracy of their speaking needs to be improved. Here the accuracy does not only mean using grammars and vocabulary correctly without errors, but also refers to the "property of language", which means to speak appropriately according to different time, places and situations.

3.4 Teaching procedure

During the whole procedure, there is no situation out of control occurred. All students throw themselves into their "roles", fusing the ideas, emotions and languages all together.

After the performance, the discussion went on with high enthusiasm. They made poignant comments on each other's performance and declared that they benefit a lot from others' presentation. Students also put forward some creative suggestions for this kind of practice. Those would be discussed in the following part.

4. Suggestions

4.1 Prepare for success

At the first period, the teacher should be brief and to the point so that the students would have more time to perform. Also, try to keep the topic real and relevant and the roles you ask students to play as real to life as possible. Try to think through the language the students will need and make sure this language has been presented. Students may need the extra support of having the language on the board. When the role-play began the students felt 'armed' with the appropriate language. At higher levels the students will not need so much support with the language but they will need time to 'get into' the role. Furthermore, the teacher should create a comfortable atmosphere so that the students wouldn't feel nervous and pressed.

4.2 Feed-in language

As students practice the role-play they might find that they are stuck for words and phrases. In the practice stage the teacher has a chance to 'feed-in' the appropriate language. This may need the teacher to act as a sort of 'walking dictionary', monitoring the class and offering assistance as and when necessary. If you are not happy doing this and you feel that the process of finding the new language should offer more student autonomy, you could have 'time-out' after the practice stage for students to use dictionaries to look up what they need. Feeding-in the language students need is fundamental. By doing so, they will learn new vocabulary and structure in a natural and memorable environment. It is a chance to use real and natural language.

4.3 Error Correction

There are many ways to correct mistakes when using role-play. It is rarely appropriate for the teacher to jump in and correct every mistake. This could be incredibly de-motivating! Some students do like to be corrected straight after a role-play activity, while the language is still fresh in their minds. Sentences with errors can be written on the board for the group to correct together.

Self-correction - If you have the equipment to record the role-plays either on audiocassette or on video, students can be given the opportunity to listen to the dialogue again and reflect on the language used. They may find it easy to spot their own mistakes.

Peer-correction - Fellow students may be able to correct some mistakes made by their peers. Students could be asked to listen out for both great bits of language they'd like to use themselves, and some mistakes they hear. Be careful to keep

peer-correction a positive and profitable experience for all involved.

Making a note of common mistakes yourself and dealing with them in future classes ensures that the students don't lose motivation by being corrected on the spot or straight after the role-play. Negotiate with students and ask them how they would like to be corrected

4.4 The role of the teacher

Some of the possible teacher roles are: Facilitator - students may need new language to be 'fed' in by the teacher. If rehearsal time is appropriate the feeding in of new language should take place at this stage. Spectator - The teacher watches the role-play and offers comments and advice at the end. Participant - It is sometimes appropriate to get involved and take part in the role-play yourself.

To sum up, incorporating role-play into the classroom adds variety, a change of pace and opportunities for a lot of language production and also a lot of fun! It can be an integral part of the class and not a 'one-off' event. It's fun and motivating; quieter students get the chance to express themselves in a more forthright way; the world of the classroom is broadened to include the outside world - thus offering a much wider range of language opportunities. In addition to these reasons, students who will at some point travel to an English speaking country are given a chance to rehearse their English in a safe environment. Real situations can be created and students can benefit from the practice. Mistakes can be made with no drastic consequences.

References

- D. A. Wilkins. (1976). *Notional Syllabuses*. London, OUP.
- Fraser, B., E. Rintell, & J. Walters. (1980). *An Approach to Conducting Research on the Acquisition of Pragmatic Competence in a Second Language*. In D. Larsen-Freeman (Ed.), *Discourse Analysis in Second Language Research* (pp. 75-91). Rowley, MA: Newbury House.
- H. G. Widdowson. (1984). *Explorations in Applied Linguistics*. London: OUP.
- Harmer, J. (1991). *The Practice of English Language Teaching*. Longman.
- Johnson, K & K. (1981). Morrow. *Communication in the Classroom*. Longman.



On Unification of Functionality and Aesthetics of Design Art

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Abstract

Design art arises with development of great production in the industrial society. Design art is an independent and creative art activity. Modern design art is not only interrelated with aesthetic and visual formative form, but more emphasizes the functionality and creation pattern of design targets. Labor of designers is both spiritual production labor and material production labor. Works of design art is not only an article of utility which emphasizes function, but is also an artistic article with aesthetic significance.

Keywords: Functionality, Aesthetics, Design art

Design art arises with development of great production in the industrial society. As for the definition of the concept of design art, there are various opinions. In the <<Encyclopedia of aesthetics>> by Овсянников, there is such an explanation, "Design art is a creative activity, and its purpose is to formulate and adjust an object, in which process the functional and aesthetic aspects of the object are opposed to be unified". By the later period of Bauhaus, there appeared another refined explanation on the concept of technical design, "Design art is an aesthetic and materialized process which exists with the industrialization process of human beings". In the times of industrial informationization and information industrialization development, design is created by human being, which can not be replaced by mechanical production. Creation potential of a designer is an extremely sophisticated psychological phenomenon, and is closely connected to social and historical elements.

Design art is an independent and creative art activity. Modern design art is not only interrelated with aesthetic and visual formative form, but more emphasizes the functionality and creation pattern of design targets. In other words, modern design art means that, in the modern industrial society of methods of mechanical production, at the time when a designer pays attention to the visual formative form and aesthetic effect of a designed object, he also lays emphasis on activities of the function of the designed object. Labor of designers is both spiritual production labor and material production labor. Works of design art is not only an article of utility which emphasizes function, but is also an artistic article with aesthetic significance.

Design art is a new artistic form brought into form in the process of art development, and is an artistic creation activity which starts from the perspective of utilitarian function. Design art weakens affective communication of individuality in pure art which emphasizes self-centeredness, and it also strengthens the function of public information transfer. It is just due to the certainty of this relation that design art is changed into a particular and generally recognized art form.

In a traditional meaning, design art is understood as an artisan craftsmanship, which overexaggerates the workmanship of design art. In the developmental process of design art, technique is, without doubt, an important component which constitutes the active process of technique. With the continual development of design art, art form exhibits a diversification developmental trend. New art forms continue to be brought into birth. In face of a variety of art forms, there also exist various viewpoints about understanding of the concept of design art. The reason for defining "design" as "design art" is that design art concentrates on the functional property of both aesthetics and utility.

To consider design art from the perspective of social development, it is a necessary product of human beings' demand on function and aesthetics in a particular era, and is brought into birth with development of the society and with evolution of technique. Considering from the perspective of design profession, art can be defined within the scope of "a combination of beauty and technique". At the time when the functionality is realized in the process of art activity, it also creates rules of beauty and forms of beauty. Design art resorts to new technique, new technology and new material to develop a great many sorts of design art with strong specialty.

The essence of design art is a double combination of functionality and aesthetics. It is from the perspective of function that the earliest design starts. Therefore, this feature determines design art and is also a conscious creative activity process by human being. Design works are products created by human being with consciousness according to functionality and aesthetics.

With development of design art activities, it comes gradually to people's mind that, an entity with the rule of beauty on the basis of application is easy to arouse people's attention, and is more likely to be accepted by the public and to leave a perfect image. "Beauty" is a common character of all forms of art. The rule of beauty and the form of beauty in an art can better arouse attention of human being, and bring people into a sympathetic response because it can use accurate visual language to transmit particular information. Beauty is a common goal pursued by human being. The sense of pleasure in beauty comes from the cultural awareness of human being. And the form of beauty comes from the summary of experiences by human being in the process of their activities. In the nature, regular objects, symmetrical objects, orderly objects, pure objects or prismatic objects are generally favored by human being. Therefore, in a certain meaning, people believe that these forms are what is called "beauty", because they are in accordance with psychological activities of the public. Hence, in the design art, such rules and forms of beauty are usually applied as regularity, symmetry, order, rhythm and meter etc. To create beauty in design art is an visual representation process of standardization and uniformity of visual elements. Within limited space, through the visual regularity and aesthetic habits of human being, beauty transmits particular information by organic combination of graphical language and word language so as to enable a designed object to better reflect the functionality. There are various means to create beauty in the design art. Firstly, summary of experiences in beauty, secondly, innovation of rules in beauty; thirdly, exploration in forms of beauty. No matter from which perspective, the purpose is to achieve the purpose of functionality so as to perform art creation.

In the developmental process of design art in China, these two properties are indiscernible.

1. Practicability of design:

For quite a long time, the design art in China has regarded aesthetics and function as diametrically opposed rather than a unified whole, which results in the lagging behind of Chinese design art, especially architectural design and design of industrial products. In the <<Technological Aesthetics>> by Xu Hengchun, he says that, any product is an outcome of processing and reconstructing natural materials by human being for the realization of a certain goal based on the objective rule they have learned. When a product has realized its destined function, and its purposiveness and regularity attain unification, then it means that human being have obtained freedom. A kind of beauty is presented which is a typical form or which is a form of its freedom and can fully reflect this unified product, which is functional beauty. As a beauty of material substance created by human being in their production practice, functional beauty is the most fundamental and common aesthetic pattern, and is also a relatively elementary aesthetic pattern. With the help of functional beauty, works of art design can reproduce its material and structure, and bring into prominence its utility function and technological rationality, which enable people to enjoy physical and psychological joy.

2. Beauty of design in form

Beauty in form is an abstract form of functional beauty, which refers to aesthetic characteristics manifested by natural quality (color, form and sound) of materials which constitute works of modern art design and their combination rules, such as proportion and rhythm, etc. beauty of material itself is natural beauty, such as brightness of the glass, its thoroughness, magnificence of jewelry, and its sumptuousness, pureness of white, vehemence of red and cleanness of blue, etc. Then, they are combined according to the following rules to constitute rules of beauty in form.

- 1). Order: a simplest formation rule. Its characteristics are unanimity and repetition, which is reflected as a unified order.
- 2). Balance: alternate repetition of different forms, colors and sounds, which bring into form beauty with both changes and unification.
- 3). Proportion: relationship between whole and part or relationship between part and part in a works of art. There are two sorts of existence forms, namely, proportion in space and proportion in time. The so-called golden section refers to the beautiful and classical proportion with an appropriate proportion of 8:5 or 1.618: 1.
- 4). Contrast: Co-existence of opposition and unification at the same time in a works of art, which yields sharp-cut, outstanding and exhilarated feeling among people.
- 5). Rhythm: regular repetition of a certain element in a works of art and continuity in good order is formed.
- 6). Harmony: the highest level of pattern reflected by beauty of works in form. Pureness reflected within abundance and order resided in freedom.

From the foregoing, it is obvious that just as art activities, modern design also has been penetrated into several aspects of the social reality. Modern design expands and splits out functions and tasks which are similar but somewhat different

from the original realm of art, that is, aesthetic value and art function. It can be said that, in a modern technical situation, boundary between technical products and art products is often fuzzy and uncertain. Any technical product can not only be an art product, but is also likely to be an artistic product, because any of them is brought into form by human being with consciousness in accordance with a certain morphological meaning. Many objects, with appropriate design, can integrate the aesthetic element and functional element together in an organic way. What is more important, they can be changed in forms together with intention or attitudes of users and audience. That is to say, a technical product can be changed into an art product in the same way as flying carriers of modern space flight and aviation, automobile and steamship etc, which do not lag a little bit behind the artwork collected in a common art gallery in terms of their breath-taking speed and creative imagination. There are quite a great many such cases. The achievements of product design or environmental design are themselves component elements of the beauty of the surrounding, and they are just like a unit cell within the surrounding, which also have their aesthetic value. What should be emphasized is that, all technical products which correspond with requirements of the goal, such as man-made mechanical products, although they are not designed purely for an artistic goal, they can, and they should become the targets of aesthetic reflection whether they are within the realm of art or are within the realm of non-art. And they all have their aesthetic significance. What's more, they are the motive and source of the aesthetic activity and aesthetic experiences of human being. Designers at present are just as artists, who endow a product with such-and-such morphological characters, and who arouse a certain aesthetic impression or aesthetic implication during the process of conversion with human being, which is completely possible. Today, industrial products verify the intellectual power of human being with their rationality. However, the design of a designer also better reflects demands of human being, and it enriches its aesthetic value with a new "personalized" significance. This is a special contribution of technical culture.

Design art is a branch in the developmental process of art, and it combines the functions of art and design, and also brings art form and art technique into service for the functionality so as to satisfy demands of the public life. Existence of design art enriches requirements of social material and spiritual of the public. Functionality and aesthetics, from beginning to end, are the characteristics for design art to be different from other art forms. It can be said that design art is a public art, and is also a practical art.

References

- Jin, Baosheng. (1990). *On Design Thinking*, in *Analects on Industrial Arts*. Beijing: Beijing Art And Craft Press.
- Li, Zehou. (1986). *The Path of Beauty*. Hefei: Anhui Literature & Art Publishing House, 68.
- Wang, Nana. (2003). Art Design and Cultural Identity. *Academia Bimonthly*, (5), 40.
- Xu, Hengchun. (1989). *Technological Aesthetics*. Shanghai People's Publishing House, 7.



Research on Gift Alienability from Anthropology Perspective

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Abstract

Economics is usually elaborate economic phenomena from an objective point of view. While Anthropologist is more related with the social and culture field, to describe the sequential change of the particular economic action and bring it to a particular social structure.

As a social behavior, the characteristics of economic activity have notable humanism particularity. The economic study includes not only the data collection or logic calculation, though the universal law exists for the base of academic conjecture. The economic phenomenon also receives influence from integrated factors, full of uncertainty as other human activity. Only if we take the social and cultural background and personal experience into our consideration, the conventional and exceptional economic phenomenon might be more recognizable.

The mutual influence between culture and economy will be examined. Culture has its significant impact on economic activity, and in certain condition, culture or immaterial ideology would become commodity itself. It is inaccessible to interpret these phenomenon by stereotype the classical economic rule mechanically. Besides the traditional practical value, emotional value should also be taken into account. The explanation of economic phenomena would be more thoroughly with the Anthropology perspective involved.

Keywords: Commodity and gift, Practical value, Emotional value, Inalienability

1. Introduction

At the first part, this article start form the questions derived from the discussion of barter exchange. Some anthropologists questioning the essence of those products in the barter market, whether they are commodities same as those one in capitalistic market, or it has gift characters that reflects the social relationship?

Then the discussion turns to the distinctness of commodity and gift, and some notions given out for reference. The inalienability been regarded as one of the main character of gifts.

A different definition of commodities and gifts been defined. There is no absolute boundary between them, and the status could be changed from one to another. The basic factor determines the possibility of exchange is value. This value concerns both the emotional part and the practical one.

2. Start from barter

As an economic phenomenon, "barter" existed in aboriginal sociality and still could be found in some indigenous place. The definition of barter means: to exchange goods for other goods, without the media of "money". There are two kinds of analyses which have different way of explanation.

One of the analyses based on the typical western economic knowledge. Such as Sir James Frazer questioning the "Savage Commerce" with his western economic standard.

"Do the people trade among themselves or with neighbouring tribes? What products are especially exchanged? Is there a special class of traders or merchants? Are there regular markets? ... If so, how are they established? Have the natives any kind of money or anything that passes for money, such as cattle, shells, salt, axes, &c.? Do they employ weights and measures? What are their standards of weight and measure?" (Nicholas Thomas, 1991)

These questions are projected form the typical western point of view. All the notions of "merchants", "market", "money", "weights and measures" and "standards of weight and measure" come from general economic knowledge. And Frazer tries to apply the general economic law to the specific tribe environment by asking these questions.

It is believed that the reason of goods interchangeability is the economic conventional law stands for the essence of commodity value despite the category diversity. And this conventional law is universal. With this understanding, everyone could get involved in all kinds of merchandise exchanges. And the reciprocity and parity of exchange should be insisted. In fact it sounds like the economic theory of Marxism, but have some subtle differences. In this perspective, the goods in barter exchange are more like the commodities.

Another tendency is mostly focus on the social relation part of the barter exchange. It is mainly represent by Bronislaw Malinowski.

“Bronislaw Malinowski has a strong polemical interest in turning his back upon the kind of speculative and detached anthropology epitomized by Frazer’s questionnaires. As we all known, he placed great emphasis on localized and intensive ethnographic study which adopted the native point of view. The aim was to see institutions and behavior in native terms, rather than in the context of some grand hypothetical scheme.” (Nicholas Thomas, 1991)

According to this opinion, the goods used for exchange are primary for expresses a kind of social relationship tie in specifically culture context, not for its practical and economic function. Then the barter is become a kind of special custom with exotic flavor. And the economic role be ignored and the goods in exchanges are more like a gift from one person to another for weave a social network and become an inter-personal dynamical action in the sociality.

3. Commodity and Gift

When talking about the inalienability of the gift, Gregory give the differences of the two as below:

Commodities	Gifts
Alienable	Inalienable
Independence	Dependence
Quantity (price)	Quality (rank)
Objects	Subjects

The set of dichotomies provides a useful departure point by showing that gifts are radically different from commodities. (Nicholas Thomas, 1991)

That is to say the commodities is always ready for exchange only if the values are equal and balance, commodities is something have no emotional or other relations with us except the actual functions. And commodities have a price with have accurate scale.

On the other hand, gift could not be exchanged freely for economic benefit, the common knowledge of practical value equivalence is not applicable to the operational approach. On certain degree, the gift is tightly related with social relations, and as an attachment of its owner.

4. Value and Alienability

But this model is not a perfect one. For instance, I bought a film star’s picture with signature by unreasonable high price, cherish it so much and never change hands. Obviously, the picture is a commodity, because I paid money for it, but one the other hand there are bonds of affections, it is inalienable.

Again, something which are supposed never should be separate from ourselves also could be sold, such as organ and sex, as Nicholas Thomas mentioned in his article. If the organ and sex could be sold, then it is obviously reasonable to sell out a gift. It against the first identity of gift—Inalienable. Another example, during the college years, one of senior student gave some books which are unable to bring home to his friends as gifts before the graduation. And one year later, when his friends also about to graduate from school, they sold out all of these books by a very cheap price. In this case, again, the gifts are alienable. So there are no absolute distinguish between commodities and gifts.

The thing is alienable or not still based on the value. Just the value we mentioned here are not simply an economic scale.

4.1 Total Value = Practical Value + Emotional Value

Practical Value

Emotional Value



- | | |
|--|--|
| <ul style="list-style-type: none"> ▪ Universal economic rule ▪ Regularized ▪ The precondition of exchange is the indistinctive human labor in equal quantity ▪ The analysis of Maxism ▪ In traditional economic field | <ul style="list-style-type: none"> ▪ Related with social cultural background & personal experience ▪ Diversified ▪ Different from place to place ▪ Different from one individual to another ▪ Different within life period ▪ In Anthropology study field |
|--|--|

Commodities

Gifts

We divide the value as two parts, the practical value and emotional value. And in the process of exchange, only the total value (practical value plus emotional value) of the commodities in exchange are equal with each other, the exchange would be carry out. In another words, the exchange value should be equal with the total value=practical value + emotional value.

And it is a reference frame with the two poles as practical and emotional value. And the two poles are not isolated ones, that means, a commodity would have both practical and emotional value. So inalienable, dependence, quality, and subjects are not the basic precondition of gifts.

4.2 Marxism for explain practical value

From the perspective of practical value, Marxist Economics gave an excellent interpretation.

Once we have determined that the production and exchange of commodities becomes regular and generalized in a society based on an economy of labor-time, on an accounting system in work-hours, we can readily understand why the exchange of commodities, in its origins and inherent nature, rests on this fundamental basis of an accounting system in work-hours and consequently follows this general rule: *the exchange value of a commodity is determined by the quantity of labor necessary to produce it*. The quantity of labor is measured by the length of time it takes to produce the commodity.

(Ernest Mandel, <http://www.marxists.org/archive/mandel/1967/intromet/ch01.htm>)

Why the goods could be exchanged in barter? It is not unrestricted, but follow the certain rules. There is a commonsense that, for instance, 3 baskets is equal with 1 pair of shoes, why 3 baskets, but not 2 or 4? Because the human labor power spent in 3 baskets is equal with to make of 1 pair of shoes. If under the same labor intensity, to make of 3 baskets and 1 pair of shoes both need the worker spend 7 hours on. So, even without money as media, the exchange of basket and shoes are, essentially, is the exchange of human labor in equal quantity. So, although both of the exchanger did not talk about money or price, and with friendly smile on face, we can't say they are exchange gifts for tie up the social relationship.

Meanwhile, Marxist Economics do not absolutize the equalization. The price will be effected by the condition of supply and demand.

“At a certain price, a commodity occupies just so much place on the market. This place remains the same in case of a price change only if the higher price is accompanied by a drop in the supply of the commodity, and a lower price by an increase of supply. And if the demand is so great that it does not contract when the price is regulated by the value of commodities produced under the least favourable conditions, then these determine the market-value. This is not possible unless demand is greater than usual, or if supply drops below the usual level.” (Karl Marx, 1990)

That is to say when the demand exceeds supply, the exchange price will higher than its practical value, in another word, when the market is short of shoes, than you need exchange 1 pair of shoes by 4 or more baskets. And when the supply exceeds demand, the exchange price will lower than the practical value.

But Marxist Economics also mentioned that, the exchange prices fluctuated around the practical value. “If commodities are sold at their market-values, supply and demand coincide”, “Supply and demand coincide when their mutual proportions are such that the mass of commodities of a definite line of production can be sold at their market-value, neither above nor below it.” (Karl Marx, 1990) Although this condition mostly exists in the possibility of scientific deduction, “supply and demand are always equated when the whole is viewed over a certain period”. (Karl Marx, 1990)

Then, we have the question as mentioned above. Why the extremely high price be paid for a signature of a film star, since the celebrity just spend few seconds for produce it? And why a normal shoes once wore by Michael Jordan, the

exchange price will be rocket up? And why a woman will not give her wedding ring up, even you pay for hundreds times of its practical value?

In those cases, the human labor spent in is extremely inconsistent with its exchange value, and the exchange value totally deviate its practical value without the accordance of supply and demand.

4.3 *Explanation of emotional value*

The emotional value is related with the social cultural background, and personal experience, it is high diversified, different from place to place, from one to another, for the same person it also change in different life period, and it is the field which anthropologist contribute their effort in.

4.3.1 Related with social cultural background & Differences from place to place

The emotional value is closely related with the culture background or personal experience. This part of value is diversified. It explained why the old colonist could exchange the nature resource by very cheap thing from the local people. There is an old story we read from books that the colonist exchange rare mineral resources, such as iron, they exchange iron with some plastic bead. The practical value of these plastic beads is low in each of the society, but when the colonist comes with the plastic bead, they make the local people believe they are valuable treasure. Then the emotional value of the plastic bead increased highly. The total value is the practical value plus emotional value, for the local people, when the emotional value of these beads is high to balance the practical value of the iron, the total value is equal, and exchange could be performed.

Another situation appeared in the example of Starbucks coffee selling in China. The Starbucks coffee cost about 2 USD in America, but the price is doubled in China, because it believed stand for a kind of life style. So the emotional value increased. Why the price increased when it related with the American life style?

It is undoubted that the western culture represented the developed civilization in the world now. Since it is occupied the highland, and let imagine the culture like a flow of current. The high position culture will be easier to reach and influence the place stay in a lower position. So it is understandable that why the people in developing country usually have a respect attitude to observe the things form developed world. The Starbucks coffee, or the coffee, is one of them. So when it comes to China firstly, it already gains it is nobler bloodline bring from the advanced west culture background. People gladly pay the price, which much higher than its practical value or actual value for been west for a moment by enjoy the products. That is the reason how the culture background influence the emotional value, and by increase it, adds the total value during exchange in market.

Worthy to notice here is that the emotional value not only has the positive influence, but also has its negative affect as well. A typical evidence is the rejection of Japanese products in Korean and China. Objectively, those products have good quality in itself and with high practical value. But due to the historical reason, those products been strict exclusive from the market in a practically period, just for their are bearing the association with the image of negative emotion. So these products have to sell out with low price under the influence of negative emotional value counteract with a high practical value, then the total value decreased as the result.

A precondition exists when the culture background having its affect towards the emotional value. This precondition is customer has a common knowledge about the culture background attached with the commodity. That is to say, in the first instance, the colonist must convince the indigenous people to believe and accept the value of the plastic bead, and in China, American culture should be wild spread and the yearning been engendered.

If without the basic knowledge of the certain culture background, for some kinds commodity, the ignorance of its origin or culture background will weaken the exchange value in the market of a different place. Such as when coffee first come into the Chinese market before the American culture popular here, it is very hard to sell it out with a normal price, because nobody want to taste it, and even after taste, most of people think the taste is ugly, much worse than the tea which they are used to. So the merchant must to first launch a promotion and lowing the price to make the chance of contact with customer, and on the other hand, the emotional value increased by advertisement and select and cultivate elite consumer in the sociality as the representative of this commodity. In this aspect, the merchant are not only doing business, they are definitely the spreader of a certain culture.

There are many examples for the price difference among each area, and that is one of important reasons for international trade. And why many countries are make great effort to spread their culture and popularize their value concept.

4.3.2 Individually & personal experience differences

From the angle of microstructure, the emotional value also different from one to another. That is why the evaluation for same thing is always different.

One this part the emotional value is related with the personal experience for everyone. Just as mentioned above, why I would like pay extremely high price for a signature from my favorite film star? And why a normal pair of shoes once worn by Michael Jordan, the exchange price will be rocket up? And why a woman will not exchange her wedding ring even with a price as hundred times of it's practical value?

The exchange value in these cases definitely goes against with the economical law. And the extremely exchange value are unacceptable, at least for most of members of society. But for certain people, the emotional value is overwhelming. For this reason, he or she could ignore the practical value which are more substantial for others.

In the first and second example, youth fever for their idols, and spent money on the signature, pay for the tickets of movie, buy posters, and even travel for million miles for meet the idol in person, paying for join the fans club. They do it for the emotional need, but not concern the rationality of price and value coincidence. But for the parents, it just wastes money. And for the non-fans, it is impossible to spend money this way, because they are mostly focus on the practical value of the same commodity.

Maybe some one would disprove that there are some people collecting the objects of celebrities not because he or she are fond of them, but for investment and appreciation of value. It is completely an economic action.

If the people do it without personal feeling involved, cultural background and social value plays the role. Since the celebrity has the social influence which increased the emotional value from another way, so the collector willing to pay a price which higher than its practical value, and the common opinion will support it. The cultural background and social value make him believe the investment is beneficial. And the collector finally will attorn encash his collections, he must find a end buyer who are willing to pay higher to realize his benefit in this transaction. The whole thing established on the acceptance and appreciation of the object which come from the recognized emotional value of the celebrity in the society.

Another aspect comes from the increase of personal feeling during the long-term consumption by share the life experience together. It could be used to explain why the senior people prefer to keep the old things, like the old building, furniture, cloth, even there are totally useless but they refuse to replace them for a better thing. In fact, those old stuffs, at the very beginning, there was nothing different from other commodities. And the purpose of purchasing was just for its practical value. As time pass by, the actual practical value were decreased or lost during the consumption. But on the other hand, the emotional value which related with life experience increased its total value. So it become indispensability.

It is same when something is from someone who has a special position in your life, or something is accompany with you during a specific time. The involvement of personal feeling and life experience make it more valuable than others.

4.3.3 Differences in different life period

As mentioned above that the emotional value could be developed during the life experience, meanwhile, this part of value would experience a degressive process as well.

The emotional value for the same thing and the same person is also changing in different period as the context changed. That is way the gift from a lover is invaluable, but after break up, the emotional value will drop back to its practical value, till some degree, the thing will able to be sold, give away, or discard. The gift will become the commodities again.

4.3.4 Diversified

From these instances above, we may found that the practical value has a general standard which could be applied in any situation and agreed by all the people. Then the emotional value is highly diversified, it is hard to create a general system for all, and in each case, the social and culture background, the personal experience, and etc. should be concerned. It is more inclined to humanities field of study rather than data analysis and algorithm.

So the tendency of nowadays economic begin to show it's interesting in the people in economic activities. Ultimately, the economic activity is a kind of human action. So it is not worthy to surprise the Chinese economic develop model broken some of the classical western economic law. It is not a miracle, just things happened in difference social and culture environment.

For the same reason, if we talking about the economic development, it should not be just apply the western model mechanically. The western model succeed in western world, and this model is not a suddenly invention. It has its profound social and culture soil, has its clearly course of philosophy logic during the centuries of development. If someone want to copy the western system or apply the western theory to a totally different environment, the result is not guaranteed, such as those cases in Africa. The developing of policy should always take account of the social and culture background as an indispensable factor.

4.3.5 In Anthropology study field

The purpose of anthropology which extent its study field in economy is to view economics as 'culture'. In other words, importance is given to the study of economic processes related to the social and cultural contexts.

"Economic anthropology is a linking between economic and social life. Similar to evolutionary psychology in that it attempts to use one branch of scientific theory and thought to explain another. In this case, it is an attempt to describe anthropological characteristics as rooted in economic factors."

(http://www.cateringa.com/articles/Economic_anthropology)

If we regard the practical value is the general standard which will play the rule in any sociality, then the emotional value are developed from the certain culture background, this value is given from a social impression. And it is different from one place to another, different among peoples.

So compare with the practical value, the emotional value is more changeable in a certain period. The proportion of emotional value deciding if the exchange could be performed, and the increase and decrease of the emotional value deciding the product is more close to commodity or gift.

5. The application of emotional value in business

In today's business, the emotional part of value been more recognized. And the usage of advertisement is one of the measures to increase the emotional feeling by wilder the social affection. And some of advertisement linking the image of certain product with one of famous singer or film star, on the one hand is use the reputation of this celebrity to popularize the knowledge of the product, and link it with noble life, high quality and so on; on the other hands is also try to add the emotional value in the eyes of fans, to channel their loyalty towards the star to the product which have their idol as spokesperson.

After the successful image establish and with the good feedback of fine quality, this circulation moving towards a positive direction, the product will build up its own reputation, become a famous brand. Then it will have its own stable consumer who affectional attached to this brand and loyal for it. This add the emotional value into this product and explain why people willing to pay more for the product from a famous brand.

Doctor Janelle Barlow mentioned in her book as below;

Our society is rapidly moving from a service economy to an experience economy. As a result, today's more sophisticated consumers not only demand services and products that are of the highest quality; they also want positive, emotionally sensitive, and memorable experiences. The organizations that learn how to add emotional value to their customers' experiences will leapfrog their competitors.

Emotional value is the economic value or monetary worth of feelings when customers positively experience products and services. Emotional value, as much as quality or any other dimension of an organization's worth, can make or break a business. It is as concrete as that!

And she suggest the companies think serious of emotional value in their production or service, she offer five measures for adding emotional value. They include:

- Building an emotion-friendly service culture
- Choosing emotional competence as your organization's service model
- Maximizing customer experiences with empathy
- Viewing complaints as emotional opportunities
- Using emotional connections to increase customer loyalty

"Emotional value will help speed up the day when businesses not only provide good service, but truly engaging experiences." (Joe Pine & Jim Gilmore, 1993) (Janelle Barlow, 2000)

6. The emotional value and gift

So what is the relationship between emotional value and gift? What is the determinative factor of commodity exchange possibility? When the emotional value is maximized, overwhelming its practical value or actual value, then it is impossible to exchange it out. The gift is the object added with emotional value during the transfer. But the exchange of commodities does not have this particularity.

When the emotional value is maximized, the practical value could be ignored. The precondition of equality in the give and take would be broken. That's why everything from the people whom you attaches importance to is a treasure, and it doesn't matter for the real friends to exchange gift as a golden pen with a common book.

But the situation of emotional value maximum occurs rarely. In most cases the emotional value has its upper limit. So the total value has its upper limit. The practical value must have a concern in total value equivalency. When you

received a gift from others, you should weighing the total value and return, by substance or affection. That is accord with the “debt” mentioned in Nicholas Thomas’s article. Sometimes, gift is also a kind of exchange, just by different way.

7. Conclusion

There is no absolute boundary for the products has inherent quality to be commodity or gift. And the Inalienability is not the partition between them. The determinant of alienable or not is the value, the value is the integration of practical value and emotional value. The thing we consider as a gift, is not because the inalienability. Instead of that, the essentially reason is the emotional value is relative higher. It could not be given out easy unless exchange with something has the same value in total.

References

- Economic Anthropology. [Online] Available: http://www.cateringa.com/articles/Economic_anthropology (June 4, 2005).
- Ernest Mandel. *An Introduction to Marxist Economic Theory*. [Online] Available: <http://www.marxists.org/archive/mandel/1967/intromet/ch01.htm> (May 30, 2005).
- Janelle Barlow. (2000). *Emotional Value-Creating Strong Bonds with Your Customers*. Berrett-Koehler Publishers, Inc.
- Joe Pine & Jim Gilmore. (1993). *The Experience Economy*. Harvard Business School Press.
- Karl Marx. (1990). *Capital*, Vol.3, Chapter 10. The Penguin Group.
- Nicholas Thomas. (1991). *Entangled Objects-Exchange, Material Culture, and Colonialism in the Pacific*. Harvard University Press, 11.



Cultural Constraints on Literary Translation

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Abstract

Translation is no longer considered a single, unified reproduction of the original but a kind of rewriting which reflects a certain ideology and literary norm and literary translation is no exception. This essay tends to explore the cultural constraints on literary translation.

Keywords: Cultural constraints, Literary translation

1. Introduction

It is commonly approved that any work of literature is nurtured by culture. The subject matter, the topic, the way the author reveals himself, are products of certain circumstances of a certain age. Since translated literature is regarded as a branch of target literary system (Xie Tianzhen, 2003:154), translated literary products share certain manifestations of certain cultural traits at a particular period of time. The role culture plays in the translation of literary texts can thus never be obliterated. In this essay, we are to have an overview of the development of translation theory and the changes in viewpoints on translation due to the recognition of cultural intervention in translation. Then, the essay discusses the relationship between culture and literary translation and finds out how culture constrains literary translation activity.

2. The Development of Translation Theory and the Recognition of Cultural Intervention

Roughly speaking, the development of translation theory in the Western world has undergone three stages. The first stage, known as “traditional” or “pre-scientific” period, lasted from the very beginning of Babel tower until World War II. The translation involved in this period was concerned mainly with literature, with the focus of translation theory on literary translation. The heatedly discussed issue in this period was the age-old literal versus free translation. In the middle of 20th century, some scholars with linguistics background began to study translation. They felt that translation should be studied in a “scientific” way. J.C Catford and Nida are the most prominent figures in this approach. They applied linguistic theory to translation and gained us a new insight into the old phenomenon. The development of linguistics has greatly contributed to the study of translation since translation itself is intricately related to language. In this period translation was basically understood as a process of linguistic code switching and the concept of equivalence had become the focus of translation theorists. Despite the great contribution of linguistics to translation studies, this approach seemed powerless in explaining some of the translation phenomena, especially when some cultural factors involved. Hence a few of them began to give up their attempts to make translation strictly scientific and came back to consider the cultural context in which a translation had been made. Such unscientific rationale as “it sounds better” was also considered (Gentzler, 1993: 182). Snell-Hornby named it the “cultural return” and predicated that it would be the main trend of translation study in the new century. In research, culture has been recognized as inseparable from translation for a long time. For instance, Nida used to take cultural factors into account while exploring his theory, as he said: it is true that all translating and interpreting the source and target languages must be implicitly or explicitly compared, but all such interlingual communication extends far beyond the mechanics of linguistic similarities and contrasts.... The meaning of verbal symbols on any and every level depends on the culture of the language community. Language is a part of culture, and in fact it is the most complex set of habits that any culture exhibits. Language reflects the culture, and in many respects constitutes a model of the culture (Schaffner, 1995: 1).

Actually, Nida still talked about the meaning-based translation in spite of the engagement of culture, which is rather different from the present-day theorists’ perspective. However, it has gradually been recognized that to a great extent culture determines the translation process and the final version. For instance, shortly after Roman conquest of Greece, in order to introduce Greek culture into Rome, Roman translators did their translations carefully and faithfully, seeking to imitate the style of the original, which they thought was more advanced than theirs, such as Quintus Ennius’ (239

B.C.? –169B.C.) translation of Euripides' tragedy. Later on, Romans realized that they had conquered Greece, and they were victors, so the Roman translators changed their viewpoints on translation entirely. Paying scant attention to the integrity of the original, they adapted the source text at will so as to show Roman literary achievements. Translation was understood as neither an "interpretation" nor an "imitation", but a "competition" with the original.

In his book *Translation, Rewriting and the Manipulation of Literary Fame*, Andre Lefevere made a detailed analysis of the sociological and cultural factors that govern the translation process. He claimed that two factors basically determine the translation process, that is, the ideology and the literary norm dominant in the receptor culture at the time a translation is made.

The ideology dictates the basic strategy the translator is going to use and also dictates the selection of the content of the original. Toury found that most texts were chosen to be translated for ideological reasons (Gentzler, 1993: 126). Andre Lefevere held that on every level of the translation process, if linguistic considerations enter into conflict with considerations of an ideological and/or poetical nature, the latter consideration tends to win (Lefevere, 1990: 24)

The dominant literary norms at a given time also play a decisive role in the translation process. Andre Lefevere investigated the nineteenth century's translations of Catullus' second poem and found that most of it rhymes even if the original does not. He explained, the need to rhyme was by no means from the "structure" of the original, on the contrary, it was imposed on translators by the literary norms of their day, which in the nineteenth century held that acceptable poetry translations should make use of the strategy of meter and rhyme (Lefevere, 1992: 100).

3. The Relationship between Culture and Literary Translation

On the one hand, literary translation has never ceased to exert influence on the development of certain culture. Translation is a means of cultural enrichment and so is literary translation. Literary works, rich in cultural elements, are reflections and sublimation of society and life. Most people get an understanding of other peoples and other nations through translated texts, of which literary translation has never occupied a small proportion (Gu Jun, 2001:414). It can be said that, at the time when a nation witnesses a considerable importation of foreign cultural elements, a vast number of translated texts serve as media, via which foreign ideas and concepts are introduced into the culture of the recipient nation. Importation of this kind implants heterogeneous elements into the target culture, enriches its development.

On the other hand, the target social and cultural system provides sources for the translator and has a certain impact on the literary translation. To make a better understanding, I shall present here a definition of culture. Although it is said that culture is defined in hundreds of ways, the term "culture" taken from culture-oriented translation scholars' idea is proper enough to be borrowed in this paper: A complex 'system of systems' composed of various subsystems such as literature, science, and technology. Within this general system, extra literary phenomena relate to literature not in a piecemeal fashion but as interplay among subsystems determined by the logic of the culture to which they belong. (Steiner, 1984:112)

Seen in this light, culture is no longer restricted to a narrow sense, but extends to a broader field, referring to all socially conditioned aspects of human life. Translation, literary translation is no exception, is one part of culture and no doubted affected and restrained by other factors of culture. As Lefevere remarks that any culture and society is the environment of a literary system and all systems are open to and interact with each other. (Lefevere, 1992: 14) Moreover, because these systems are rooted deeply in the target cultural context, the importance of the cultural context is made much account of. By "cultural context", we take it as "a world vision that links together the members of social group and distinguished them from others," or as "a set of cultural predispositions (conventions, beliefs, values and assumptions) internalized in the mind of the individual but socially determined". (Boase-Beise, 1999:61) So a translated work is always made in a certain socio-cultural background and the process of translating is a cultural bound activity. Literary translation is no exception, which is influenced not only by the source culture at one end but also the target culture at the other end.

4. Cultural Constraints on Literary Translation

Literary translation exerts great influence on the target culture, and at the same time, the target culture has never stopped restraining the process of literary translation. It is held that "there is always a context in which the translation takes place, always a history from which a text emerges and into which a text is transposed." (Lefevere: 1990:11) As a matter of fact, literary translation has never escape from the constraints of a certain target cultural context. Andre Lefevere made a detailed analysis of the sociological and cultural factors that govern the translation process in his book *Translation, Rewriting and the Manipulation of Literary Fame*. He claimed that two factors basically determine the translation process, that is, the ideology and the literary norm dominated in the target culture at the time a translation is made. And in the following paragraphs, the author is going to illustrate, with examples, how ideology, literary norms and other cultural factors condition literary translation.

The prevailing ideology of a target culture at a given time exerts more influence on the selection of the source materials in the translation activity. In the Abbasia Dynasty of Arab Empire the translation of Greek culture almost covered the

entire science field, but excluded Greek literary works. For this phenomenon there were two reasons. The first involved religion. What Arabian Islam preaches is monotheism, i.e. in the universe Allah is the only force that controls and governs the destiny of mankind and the development of things. However, what the Greek literary works reveal is polytheism, which is out of tune with the Islam doctrines and was naturally excluded by Arabian rulers and translators. The second reason involved literature itself. As early as about one hundred and fifty years before the birth of Islam, poetry had been created in the Arabian Peninsula and had achieved considerable successes. Its representative work was a series of “suspending poems”. The Abbasia Dynasty further developed Arabian poems. Arabs were always proud of their poems. Because of such a sense of nationalistic pride, they yielded a psychology of despising foreign literary works.

During the 1950s, class struggle was considered the all-important task of China, so class struggle was imposed as the primary norm for categorizing literary works during this period. “Generally speaking, only literary works from the Soviet Union and other socialist countries, as well as former colonies of European countries, were deemed to be qualified for translation.”(Lin Kenan as qtd. by Tymoczko, Maria., and Gentzler, Edwin, 2002:180) Thus, there was strict control of textual selection during this period, a control exercised in accordance with the predominant political orientation. As for Western literary works, particularly American and English literature, only those depicting class struggle and racial discrimination—that is, only those exposing the dark side of capitalist society --- were deemed worthy of translation. Thus, for example, *Uncle Tom’s Cabin* was selected for its delineation of racial oppression and *Oliver Twist* for its portrayal of capitalist exploitation. Many other masterpieces, James Joyce’s *Ulysses* for one, were labeled as decadent and reactionary; they remained untranslated until the early 1990s when the norms of translation again changed in China.

The dominant literary norms at the time a particular translation is made also play a decisive part in the translation process. Lefevere investigated the nineteenth century’s translations of Catullus’ second poem and found that most of it rhymes even if the original does not. He explained, the need to rhyme was by no means from the “structure” of the original, on the contrary, it was imposed on translators by the literary norms of their day, which in the nineteenth century held that acceptable poetry translations should make use of the strategy of meter and rhyme (Lefevere, 1992:100).

Besides, whether the ruling class supports and whether its policy is lenient in the target culture are also important factors influencing translation activities. These also show the influence of political power in cultural field. Just as Susan Bassnet points out, studying translation today means “being aware of the processes that shape a culture at a given point of time”. (Gentzler, 1993: 191) Such processes include extra literary factors: economy, politics, society, and so on.

5. Conclusion

From the examples, we can make a conclusion that cultural factors such as ideology and literary norms of the target culture dictate the process of literary translation, just as Toury said that most texts were chosen to translate for ideological reasons (Gentzler, 1993:126). Besides, the dominant literary norms at the time a particular translation is made also play a decisive part in the translation process. Only by catering to the target culture and approving of it, can foreign cultures be accepted voluntarily by the target culture; otherwise, they are often rejected or resisted. Lefevere held such an opinion that on every level of the translation process, if linguistic considerations enter into conflict with consideration of an ideological and/or poetical nature, the latter consideration tends to win (Lefevere, 1990: 24). Therefore, it can be seen that that literary translating is a constrained activity influenced by other elements within the whole target culture. So cultural factors do restrain the selection of the original source and the translator’s selection of translation strategy.

References

- Boase-Beier, Jean and Michael Holman, ed. (1999). *The Practice of Literary Translation: Constrains and Creativity*. Manchester: St. Jerome Publishing.
- Gentzler, Edwin. (1993). *Contemporary Translation Theories*. New York: Routledge.
- Gu, Jun. (2001). *Multi-culture Studies*. Bei Jing: New World Publishing.
- Lefevere, Andre. (1990). *Translation, History and Culture*. New York: Routedge.
- Lefevere, Andre. (1992). *Translating, Rewriting and the Manipulation of Literary Fame*. London: Routledge.
- Schaffner, Christina, and Helen Kelly-Holmes, ed. (1995). *Cultural Function of Translation*. Clevedon: Multilingual Matters Ltd..
- Steiner, Peter. (1984). *Russian Formalism*. Ithaca and London: Cornell University Press.
- Xie, Tianzhen. (2003). *New Perspective of Translation Studies*. Qingdao: Qingdao Publishing House.



Distinction of Entailment and Presupposition

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Abstract

In this passage, the definitions of entailment and presupposition are pointed out, and distinctions of them are shown through examples.

Keywords: Entailment, Presupposition

1. Introduction

In talking about sentence relations and truth in semantics, there are several sentence relations: a & b are synonymous, a entails b, a contradicts b, a presupposes b, a is a tautology, a is a contradiction. In all the relations, entailment and presupposition are often to be confused. So we can use several examples to show the difference between them.

2. Definition and Distinction

2.1 Definition

First, some semanticists have claimed that the meaning relations discussed in example 1 can be given a more rigorous definition. The claim is that there are fixed truth relations between sentences which hold regardless of the empirical truth of the sentences. We can examine the claim by looking at the semantic relation of entailment.

Example 1: a. The anarchist assassinated the emperor.

b. The emperor died.

Presupposition has been an important topic in semantics: the 1970s in particular saw lively debates in the literature. Books devoted largely to the subject include Kempson (1975), D. Wilson (1975), etc, and important papers include J. D. Fodor(1979) and Wilson and Sperber (1979).

To presuppose something means to assume it, and the narrower technical use in semantics is related to this.

In example 2, a sentence is said to presuppose b sentence.

Example 2: a. I don't regret leaving London.

b. I left London.

2.2 Distinction

2.2.1 Theory of Distinction

How to distinguish the two relations? The relation of the two sentences can be tested in the following tables:

1. Composite truth table for entailment

p	q
T	→ F
F	→ T or F
F	← F

2. Composite truth table for presupposition

p	q
T	→ T
F	→ T
T or F	← T

$$T \text{ or } F \leftarrow T$$

$$?(T \vee F) \leftarrow F$$

We can see how this would work for our examples:

Step 1: If p is true, then q is automatically true? Yes.

Step 2: If q is false, is p also false? Yes.

Step 3: Then p entails q. Note if p is false then we can't say anything about q; it can be either true or false. And if q is true we can't say anything about p; it can be either true or false.

The relation is shown in figure 1.

Step 1: If p is true then q is true.

Step 2: If p is false, then q is still true.

Step 3: If q is true, p could be either true or false.

Step 4: If q is false, the status of p is dubious, possibly neither true nor false.

The relation is shown in figure 2.

2.2.2 Examples

There are many other examples in exercises in 4.4, page 103 of the book *Semantics* written by John I. Saeed, 2000. According to the method we have discussed above, No. 1, 3, 5 are presuppositions, No. 2 and 4 are entailments. Let's take 1 and 2 for example.

1. a. Dave is angry because Jim crashed the car.

b. Jim crashed the car.

From the table of presupposition, we can get that if 'Dave is angry because Jim crashed the car' is true, then 'Jim crashed the car' is true.

If Dave isn't angry because Jim crashed the car, then 'Jim crashed the car' is still true.

If Jim 'crashed the car' is true, Dave may be angry or not.

If Jim 'crashed the car' is false, that means maybe nothing happened about the car, so sentence a is meaningless.

2. a. Zaire is bigger than Alaska.

b. Alaska is smaller than Zaire.

From the table of entailment, we can get that if 'Zaire is bigger than Alaska' is true, then 'Alaska is smaller than Zaire' is true.

If 'Alaska is smaller than Zaire' is false, then 'Zaire is bigger than Alaska' is false.

If 'Zaire is bigger than Alaska' is false, then 'Alaska is smaller than Zaire' may be true or false; if 'Alaska is smaller than Zaire' is true, then 'Zaire is bigger than Alaska' is true or false.

Other Ways of Distinction

We can also make a judgment in lexical relationship or in syntactic of whether it is an entailment.

Let's take exercise 2 for example:

It can also be analyzed in syntactic. The two versions of the sentence will entail one another. Sentence a entail sentence b, and vice versa. That means, 'Zaire is bigger than Alaska' entail 'Alaska is smaller than Zaire' and vice versa.

In some other examples, it can also be decided in lexical. Let's look at example 1 again. 'The anarchist assassinated the emperor', that means the person killed the emperor in some way and the emperor is dead now. So in lexical, assassinate somebody entail that somebody died. In this way, we can also draw that the relation is entailment.

These are the other two ways of drawing the conclusion, which are easier than the three or four steps of judgment.

3. Conclusion

In studying sentence relations and truth, learning how to distinguish entailment and presupposition is very useful in understanding the meaning of sentences semantically and pragmatically.

References

- JohnI. Saeed. (2000). *Semantics*. Foreign Language Teaching and Research Press.
- Kempson, Ruth M. (1975). *Presupposition and the Delimitation of Semantics*. Cambridge University Press.
- Wilson, D. (1975). *Presupposition and Non-truth Conditional Semantics*. New York: Academic Press.

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