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Contents

Gender and Major Differences in Self-Estimates of Different Aspects of Gardner's Multiple Intelligences: A Study of the Undergraduate Pre-service Teachers in Taiwan <i>Su-ching Lin</i>	3
Choice for Leading Industry in Guangdong Industry <i>Yanping Zhang, Mingsheng Li & Weijian Li</i>	15
The Effect of Trade Liberalization on Chinese Rural Poverty <i>Shixin Li</i>	23
A Cross-Cultural Discussion of Japan and South Korea and How Differences Are Manifested in the ESL/EFL Classroom <i>Scott Aubrey</i>	34
Research on the Information Supporting System for the New Educational Mechanism Reforming in Rural Areas <i>Jianxiong Huang & Hongju Zhan</i>	40
Education for Sustainable Development in Teacher Education: Issues in the Case of York University in Canada <i>Jinyu Liu</i>	46
Bullying: Risk Factors Becoming 'Bullies' <i>Kasetchai Laeheem, Metta Kuning & Nittaya McNeil</i>	50
An Analysis of Cross-Border Mergers and Acquisitions' Effects on China's Automotive Industry Security and the Countermeasures <i>Jianhong Huang</i>	58
Regional Integration in Asia: Prospects and Challenges <i>Sa Zeng</i>	62
Tourism Development: A Geographical Perspective <i>Khairil Wahidin Awang, Wan Melissa Wan Hassan & Mohd Salehuddin Mohd Zahari</i>	67
The Origin of Blue-and-white and the Birth of Symbols <i>Feng Zhu & Jie Shao</i>	77
Chomskyan Linguistics and the Scientific Methodology in Linguistic Study <i>Fuzhen Si</i>	82
Exploitative Microfinance Interest Rates <i>Subrata Kumar Mitra</i>	87
The VAT Reform and Its Financial Impacts <i>Weimo Huang</i>	94
The Translation and Dissemination of the Western Psychology from the Early Republic of China to May 4 th Movement <i>Yanfeng Hu</i>	99



Contents

McDonaldisation and the Labour Process: Impacts and Resistance	103
<i>Yu-Jen Wu</i>	
Analysis of the Quality Safety of Farm Products Based on the Game Theory	113
<i>Xiaoming Yang</i>	
English Education under the Context of Globalization	118
<i>Meiying Song</i>	
Levels of Job Satisfaction amongst Malaysian Academic Staff	122
<i>Fauziah Noordin & Kamaruzaman Jusoff</i>	
Studying the Factors Influencing the Legal Development in Ancient China	129
<i>Xuzhi Shang</i>	
A Study of Age Influence in L2 Acquisition	133
<i>Chao Zhang</i>	
Background Knowledge and Reading Teaching	138
<i>Qian Huang</i>	
An Analysis of the Adolescent Problems in <i>The Catcher in the Rye</i>	143
<i>Lingdi Chen</i>	
Non- Agriculture Specialized Subjects Personnel Training Plan Based on Urban Agriculture	147
<i>Youqin Yuan & Shoujun Sun</i>	
Sociological Analysis of Absence of Rights and Interests of Mobile Population and Crimes	151
<i>Yun Han</i>	
Current Situation and Protection of the Diversity of China's Marine Life	156
<i>Yan Li</i>	
The Evolution and Examination of the College Physical Education since the Founding of the People's Republic of China	159
<i>Hui Lv</i>	



Gender and Major Differences in Self-Estimates of Different Aspects of Gardner's Multiple Intelligences: A Study of the Undergraduate Pre-service Teachers in Taiwan

Su-ching Lin

Associate Professor

Graduate Institute of Education

National Changhua University of Education, Taiwan

1, Jin De Road, Paisha Village, Changhua 500, Taiwan

E-mail: sclin@cc.ncue.edu.tw

Abstract

This study was to examine gender and major differences in self-estimates of different aspects of Gardner's multiple intelligences within pre-service teachers. Questionnaire participants included 411 pre-service teachers at National Changhua University of Education in Taiwan. The findings indicated that there were significant gender differences in self-estimates of verbal-linguistic, musical, math-logic, visual-spatial, and body-kinesthetic intelligences; and there were significant departmental differences in self-estimates of verbal-linguistic, math-logic, visual-spatial, body-kinesthetic, and naturalistic intelligences. Except for verbal-linguistic and math-logic intelligences, there were significant relationships among other aspects of intelligences. Conclusion and implications are also included.

Keywords: Gender, Major, Multiple intelligences theory, Self-estimated intelligence, Undergraduate pre-service teacher

1. Introduction

According to Gardner (1991), recent cognitive research documents the extent to which students possess different kinds of intelligences and therefore learn, remember, perform, and understand in different ways. These differences challenge an educational system that assumes that everyone can learn the same materials in the same way and that a uniform, universal measure suffices to test student learning. Indeed, as currently constituted, our educational system is heavily biased toward linguistic modes of instruction and assessment and, to a somewhat lesser degree, toward logical-quantitative modes as well. Therefore, many people unjustifiably deemed successful, as well as many needless casualties, emerge from contemporary educational systems. Lazear (1994) illustrate that not all progress is scientifically quantifiable. Students almost always know, understand, and have learned much, much more than they can demonstrate on any tests we administer.

In Taiwan, there are similar situations. Entrance examinations for colleges or high schools and many assessments on academic achievements mainly focus on pencil and paper tests, especially at secondary school level. As a result, some teachers have developed the view that some students are unteachable, and their major focus becomes maintaining discipline. To solve this problem, we need to encourage teachers to think about how to teach through different entries and how they can evaluate students using multiple approaches to assessment, rather than using only pencil and paper tests. Teachers need to look at such things as students' thinking and learning skills; their intellectual, emotional, and social development; their capacity to transfer and apply classroom learning to life in the real world; and their creative problem-solving abilities in their evaluation of students' achievement (Lazear, 1994). However, Campbell and Campbell (1999) indicate, "During pre-service and in-service education, teachers rarely consider the nature of the human learning potential they are responsible for. This gap in our professional knowledge base is akin to doctors being trained without studying the human body or architects being licensed without understanding the physics that allow structures to remain upright" (p. 2). Therefore, it is of the utmost importance that teachers in Taiwan recognize and nurture all of varied human intelligences, and all of the combinations of intelligences.

Multiple intelligence theory was first proposed by Howard Gardner (1983) in his seminal book, *Frames of Mind: The Theory of Multiple Intelligences*. Since that time, educators have become interested in the theory as a means to improve teaching and learning in a multiplicity of ways. According to Gardner, everyone possesses eight distinct intelligences: verbal-linguistic, mathematical-logical, interpersonal, intrapersonal, visual-spatial, bodily-kinesthetic, musical-rhythmic and naturalistic intelligence. Each of the eight intelligences is present to different degrees in a person, with some intelligences being better developed than others. Although there are eight distinct intelligences, each one has many different attributes, with individuals demonstrating considerable variability. Kagan and Kagan (1998) described MI theory as a powerful “catalyst” in education. “It is revitalizing the search for more authentic, student-centered approaches to curriculum, instruction, and assessment” (p.23). From their perspective, MI theory can be used to meet three visions: “(a) to match teaching to the ways student learn, (b) to encourage students to “stretch” their abilities to develop all their intelligences as fully as possible, and (c) to honor and celebrate diversity” (p.182).

Howard Gardner’s theory gives us a starting point for discussion about human intelligence and to talk about why a student does well in one area but not in another. Multiple intelligence approach receives a lot of attention and responses in America. The educators who have been prominent in the field of MI theory (e.g. Campbell & Campbell, 1999; Kornhaber, Fierros, & Veenema, 2004) have focused their applications on elementary education. The few writers who addressed secondary education predominately have focused on either the field of English or the general restructuring of the secondary schools (Armstrong, 1998; Brooks, 1995; Evans, 1995; Gage, 1995). If Gardner’s constructs have been successful with elementary and secondary students, could they be applicable to adults in colleges and universities? Is it possible to instruct pre-service teachers so that they can successfully use MI theory in their own teaching? Which intelligences would enable teachers to be successful in their field of endeavor?

The purposes of this study were to investigate gender and major differences in self-estimates of different aspects of Gardner’s multiple intelligences among undergraduate pre-service teachers. Specifically, the following research questions were addressed in this study:

1. What are the gender differences in pre-service teachers’ self-estimates of Gardner’s multiple intelligences?
2. What are the major differences in pre-service teachers’ self-estimates of Gardner’s multiple intelligences?
3. What are the corrections among eight aspects of multiple intelligences?

2. Multiple intelligences: A brief review

2.1 The origin of multiple intelligences

H. Gardner, a cognitive psychologist at Harvard University, is not the first to recognize multiple human abilities. However, he is the first to acknowledge diverse competencies as forms of human intelligence. Gardner (1987) explores that it is of the utmost importance that we recognize and nurture all of the varied human intelligences, and all of the combinations of intelligences. Human are all so different largely because they all have different combinations of intelligences. If people recognize this, he thinks people will have at least a better chance of dealing appropriately with the many problems that they face in the world. In his book *Frames of Mind: The Theory of Multiple Intelligence* (1983), Gardner defines intelligence as the ability to find and solve problems and create products of value in one’s culture. He points out that the concept of intelligent behavior varies from the culture to culture. The eight intelligences he has identified are: Linguistic, Logical/ Mathematical, Spatial or Visual, Musical, Kinesthetic, Interpersonal, Intrapersonal, and Naturalistic intelligences (Gardner, 1991).

2.2 The eight intelligences described

Gardner provided a means of mapping the broad range of abilities that human posses by grouping their capabilities into eight intelligences (1999):

Linguistic intelligence: The capacity to use words effectively, whether orally or in writing. This intelligence includes the ability to manipulate the syntax or structure of language, the phonology or sounds language, the semantics or meanings of language, and the pragmatic dimensions or practical use of language. Some of these uses include rhetoric, mnemonics, explanation, and meta-language.

Logical-Mathematical intelligence: The capacity to use numbers effectively and to reason well. This intelligence includes sensitively to logical patterns and relationships, statements and propositions, functions, and other related abstractions. The kinds of processes used in the service of logical-mathematical intelligence include: categorization, classification, inference, generalization, calculation, and hypothesis testing.

Spatial intelligence: The ability to perceive the visual-spatial world accurately and to perform transformations upon those perceptions. This intelligence involves sensitivity to color, line, shape, form, space, and the relationships that exist between these elements. It includes the capacity to visualize, to graphically represent visual or spatial ideas, and to orient oneself appropriately in a spatial matrix.

Bodily-Kinesthetic intelligence: Expertise in using one's whole body to express ideas and feelings and facility in using one's hands to produce or transform things. This intelligence includes specific physical skills such as coordination, balance, dexterity, strength, flexibility, and speed, as well as proprioceptive and tactile capacities.

Musical intelligence: The capacity to perceive, discriminate, transform, and express musical forms. This intelligence includes sensitivity to the rhythm, pitch or melody, and tone color of a musical piece. One can have a figural or "top-down" understanding of music, a form or "bottom-up" understanding, or both.

Interpersonal intelligence: The capacity to perceive and make distinctions in the moods, intentions, motivations, and feelings of other people. This can include sensitivity to facial expressions, voice, and gestures; the capacity for discriminating among many different kinds of interpersonal cues; and the ability to respond effectively to those cues in some pragmatic way.

Intrapersonal intelligence: Self-knowledge and the ability to act adaptively on the basis of that knowledge. This intelligence includes having an accurate picture of oneself; awareness of inner moods, intentions, motivations, temperaments, and desires; and the capacity for self-discipline, self-understanding, and self-esteem.

Naturalistic intelligence: The ability to recognize patterns in nature and classify objects, the mastery of taxonomy, sensitivity to other features of the natural world, and an understanding of the different species.

Beyond the descriptions of eight intelligences, certain aspects of the theory are important to remember. Armstrong (1994) suggested that four elements be considered. First, each person possesses all eight intelligences. Each person has capacities in all eight intelligences. Second, the eight intelligences function together in ways unique to each person. Third, some people appear to possess extremely high levels of functioning in all or most of the eight intelligences, yet others appear to lack all but the most basic aspects of the intelligences. Fourth, Most fall somewhere in between highly developed in some intelligences, mostly developed in others, and relatively underdeveloped in the rest.

Gardner (1983) and Ramos-Ford and Gardner (1991) suggested that these intelligences are autonomous but they are also interactive. In general, students have relative strengths and weaknesses across the intelligences, which has implications for the gifted and talented students. That is, students will differ as to the areas they are considered to be gifted or talented. However, Gardner (2004) points out that it may be timely to reconsider the relationship between IQ (general intelligence) and multiple intelligences theory. Having established the legitimacy of a multiple intelligences approach, Gardner suggests to understand better the differences between individuals who have the standard high IQ (for scholastic intelligence) and those who stand out in order respects, perhaps by having a notably scattered profile of intelligences. Gardner thinks now of high IQ individuals as having a mental searchlight, which allows them to scan wide spaces in an efficient way, while those with a more jagged profile employ a mental laser, which allow them to focus intensely on a more specific area. Politicians, business-persons, leaders of various sorts are more likely to stand out for their high IQs; those who go into the arts, the sciences, or some kind of craft or trade are more likely to display a laser-form of intelligence. The smooth running of society may be depended on having individuals with reliable searchlights; the advances of society may reflect individuals with highly beamed lasers.

In addition, MI makes its contribution to education by suggesting that teachers expand their repertoire of techniques, tools, and strategies beyond the typical linguistic and logical ones predominantly used in U.S. classrooms (Campbell, 1997). MI theory provides an avenue for accomplishing what good teachers have always done: Research beyond the text to provide varied opportunities for students to learn and show evidence of learning. MI theory provides a framework for teachers to reflect on their best teaching methods and to understand why these methods work or why they work well for some students but not for others. It also helps teachers expand their teaching repertoire to include a broader range of methods, materials, and technique for reaching an ever-wider and more diverse range of learners (Standford, 2003).

3. Method

3.1 Participants and settings

Participants for this study were pre-service teachers (N=411) at the National Changhua University of Education (NCUE). Participants from each department was as follows: (a) Industrial education, 13.62%; Information management, 1.46%; Business Administration, 2.43%; Business Education, 3.65%; Mathematics, 8.52%; Chemistry, 6.81%; Physics, 5.35% ; Biology, 3.41%; Physical Education, 5.11%; Special Education, 6.33%; Guidance and Counseling, 12.41%; English, 8.27% ; Chinese, 8.76%; Art, 5.84%; Geography, 8.03%. Of the total participants, 57.18% were female and 42.82% were male. NCUE is responsible for secondary teacher education as well as in-service training. Most of the NCUE students can take the teacher education program. All of the students indicated an interest in becoming secondary teachers. Student permission to participate was obtained for all participants. Participants took approximately 30 minutes to complete this questionnaire.

3.2 Instrument

Participants were given a questionnaire, *How Smart I Am—Knowing Yourself Multiple Intelligences*, which, in a brief introduction, explained the idea of a visual analogue scale. The items of the questionnaire consisted of eight aspects of intelligence proposed by Gardner (1983): verbal-linguistic, mathematical-logical, interpersonal, intrapersonal, visual-spatial, bodily-kinesthetic, musical-rhythmic and naturalistic intelligence. The questionnaire items were modified from Shore (2001) questionnaire items and translated into Chinese version. Initially, a large number of items ($n=104$) was generated as self-reported and describes a person's intellectual disposition in eight general areas, e.g., "Are you good at mental arithmetic?", "Are you good at writing?" Each item used 5-point Likert-type scale ranging from 1 (Statement does not describe you at all) to 5 (Statement describes you exactly).

3.3 Analysis Procedure

Confirmatory factor analysis was utilized to confirm the construct of multiple intelligences. CFA allows us to test whether our observed variables define a valid construct and assess the reliabilities of the variables (Byrne, 2001; Shumacker & Lomax, 2004). In order to investigate the conceptual framework of multiple intelligence, utilizing Analysis of Moment Structure (AMOS) software package 5.0 (Arbuckle, 2003), the present study used CFA approach to confirm the eight underlying aspects of multiple intelligence Gardner (1983) developed and apply them to the data of the college students in Taiwan.

For the CFA, the criteria used were as follows: conceptual/theoretical considerations; the factor loadings must exceed .30 or, in most cases, .40 (Stevens, 1996; Tabachnick & Fidell, 1989). In addition, the indices used to test the fit of the models are the χ^2 statistic, AGFI, CFI, TLI, SRMR, RMSEA, critical N, and Normed χ^2 (NC). It should be noted that the χ^2 statistic is sensitive to sample size; therefore, alternative goodness-of-fit indices have been used for the present study. A value of .90 and above for AGFI, CFI, and TLI indicates a reasonable fit (Byrne, 2001). Hu and Bentler (1999) suggested that a value of .08 and less for SRMR indicated a decent fit. Browne and Cudeck (1993) suggested that a value of .08 and less indicated reasonable fit. Researchers have recommended using ratios as low as 2 or as high as 5 to indicate a reasonable fit of Normed Chi-Square (Marsh & Hocevar, 1985). Hoelter (1983) argues that a critical N of 200 or better indicates a satisfactory fit.

After confirming the eight aspects of multiple intelligence, descriptive statistics was then conducted for each gender and department as well as for the eight aspects of multiple intelligence. A *t*-test and analysis of variance (ANOVA) were used to examine multiple intelligence scores as the dependent variables with gender and department as the independent variables. A significant AVOVA was followed by *Scheffé* test to determine differences between means.

4. Results

4.1 Instrument validation

Eight aspects of multiple intelligence were determined and were named as *verbal-linguistic, mathematical-logical, visual-spatial, bodily-kinesthetic, musical-rhythmic, interpersonal, intrapersonal, and naturalistic*. 102 items within the eight aspects were retained after the confirmatory factor analysis. Utilizing Cronbach's alpha, the reliability coefficient for the measures are .84, .90, .82, .80, .91, .88, .80 and .86, respectively. Table 1 shows parameter estimations of eight aspects of multiple intelligence. Note that the corresponding factor loadings of these indicators were significant at α -level of .05.

220 pre-service teachers were selected as the respondents of the validation studies. These results indicated that the study already had basic framework validly. In the internal consistency inspection (Table 1), Cronbach's α for each factor ranged from 0.80 to 0.91. Cronbach's α for entire questionnaire was 0.94

Insert Table 1 about here

Table 2 presents the goodness-of-fit indices of the model of multiple intelligence. The statistical results included the χ^2 statistic, AGFI, CFI, TLI, SRMR, RMSEA, CN and NC. As shown in Table 2, although the value of the χ^2 statistic indicated poor fit of the model, it was sensitive to sample size and needed to examine alternative indices. The results of these alternative indices indicated a reasonable fit.

Insert Table 2 about here

4.2 Gender effects

Means and standard deviations of different types of self-estimates intelligence for male and female were reported in Table 3. In addition to the scores of the eight aspects of multiple intelligence assessed, overall mean self-rated intelligence for both groups was computed. As shown in Table 3, *t*-tests revealed that males' self-estimates of mathematical, visual-spatial, and bodily-kinesthetic intelligences were significant higher as compared to the female sample. In contrast, self-estimates of verbal-linguistic and musical-rhythmic intelligences were significantly higher for the female than for the male sample.

Insert Table 3 about here*4.3 Major effects*

Overall means and standard deviations of different department pre-service teachers' self-estimated intelligences were reported in Table 4. Table 5 presented the mean scores of pre-service teachers from a variety of academic department areas. There were significant differences among different departments in verbal-linguistic, mathematical-logical, visual-spatial, bodily-kinesthetic, and naturalistic intelligences.

Insert Table 4 about here**Insert Table 5 about here**

The means, standard deviations, *F* value and *Scheffé* tests of different department pre-service teachers' self-estimated in the above intelligences were shown from Table 6 to Table 10. As shown in Table 6, *F* value and *Scheffé* tests revealed that Chinese literature department participants' self-estimated of verbal-linguistic intelligence ($F=3.04$, $p<.001$), were higher as compared to participants from industrial education, mathematics, physics departments.

Insert Table 6 about here

As shown in Table 7, *F* value and *Scheffé* tests revealed that industrial education, mathematics, chemistry, physics department participants' self-estimates of mathematical-logical intelligence ($F=13.66$, $p<.001$), were higher as compared to participants from physical education, special education, guidance and counseling, English literature, Chinese literature departments. In addition to this, mathematics department participants' self-estimates of mathematical-logical intelligence were higher as compared to participants from art and geography department.

Insert Table 7 about here

As shown in Table 8, *F* value and *Scheffé* tests revealed that art department participants' self-estimated of visual-spatial intelligence ($F=6.55$, $p<.001$), were significantly higher as compared to participants from physical education, guidance and counseling, English literature, Chinese literature departments.

Insert Table 8 about here

As shown in Table 9, *F* value and *Scheffé* tests revealed that physical education department participants' self-estimates of bodily-kinesthetic intelligence ($F=3.43$, $p<.001$), were higher as compared to participants from Chinese literature department.

Insert Table 9 about here

As shown in Table 10, *F* value and *Scheffé* tests revealed that biology, geography department participants' self-estimates of naturalistic intelligence ($F=2.79$, $p<.001$), were higher as compared to participants from mathematics department.

Insert Table 10 about here*4.4 The correlations among MI*

Other than the above intelligences, there were no significant differences in musical-rhythmic, interpersonal, and intrapersonal intelligences among different departments. The Correlations among participants' different types of self-estimated intelligence is presented in Table 11.

Insert Table 11 about here**5. Discussion***5.1 Gender*

The present study revealed that males do not generally estimate their intelligence higher as compared to females. Significantly higher self-estimates of male were shown for mathematical, visual-spatial, and bodily-kinesthetic intelligences while females rated their verbal-linguistic and musical-rhythmic intelligences significantly higher. Results are partly consistent with the outcome of studies by Furnham et al. (1999), Rammstedt and Rammsayer (2000), and Ksiciński (2000). Furnham et al. indicated significantly higher self-estimates by males were shown for mathematical intelligence, visual-spatial intelligence, and bodily-kinesthetic intelligence while there was no other type of intelligence that showed significantly higher self-ratings for females than for males. Rammstedt and Rammsayer reported that male sample had significantly higher self-estimates of mathematical, visual-spatial intelligences and reasoning as compared to the female sample while females rated their musical-rhythmic intelligence significantly higher than males. Ksiciński's data was compiled from responses from 81 students in remedial classes at College of the Redwoods in California. Results indicated that women rated themselves higher in seven out of the eight MI domains; men rated themselves higher only in the kinesthetic domain.

However, there was no gender difference in interpersonal and intrapersonal intelligences. It was not consistent with the results of studies by Cranford (2005) and Shi and Wang (2007). Cranford examined the difference in emotional

intelligence (EI) between different groups of undergraduates in Singapore. One of the results indicated male undergraduates achieved higher EI scores than female undergraduates. Her finding is consistent with the outcome of the study by Shi and Wang.

Gardner (1993) states that multiple intelligences have a cultural component. Participants of the present study were Taiwanese undergraduate pre-service teachers, while Rammstedt and Rammsayer (2000) tested German undergraduate psychology students, and Furnham et al. tested students from various faculties, more importantly, from different cultures (Britain, Hawaii, and Singapore). From this perspective, various findings of studies may be accounted for by possible cross-cultural differences.

5.2 Major

As to the mean scores of pre-service teachers from a variety of academic department areas, respondents from Chinese literature department had significantly higher self-estimates of verbal-linguistic intelligence than respondents from industrial education, math, and physics departments. This finding is consistent with the outcome of a study by Shearer (2004). Shearer selected American high school teachers as participants and found that the high mean score of verbal-linguistic intelligence is the English department. In Taiwan, the Chinese department is regarded as English in the U. S. A. There are significant differences among some various majors in self-estimates of verbal-linguistic intelligence.

Moreover, the high mean scores of mathematical-logical intelligence are math, physics and chemistry departments while the low mean score is the Chinese literature department. This finding is also consistent with the outcome of a study by Shearer (2004). Shearer's study revealed that high mean scores of mathematical-logical were math and science departments while the low mean score is the English literature department. In addition, the present study revealed respondents from math, physics, chemistry, and industrial education departments had significantly higher self-estimates of mathematical-logical intelligence than respondents from the physical education, special education, Guidance and Counseling, English, and Chinese departments. There is a significant difference among some various majors in self-estimates of mathematical-logical intelligence.

Third, the low mean score of visual-spatial intelligence is from the Chinese literature department. This finding is also consistent with the outcome of the study by Shearer (2004). Shearer's study revealed that the low mean score is from the English department. Additionally, the present study revealed respondents from the Arts departments had significantly higher self-estimates of visual-spatial intelligence than respondents from the Physical Education, Guidance and Counseling, English, Chinese departments. There is a significant difference among some various majors in self-estimates of visual-spatial intelligence.

Fourth, the high mean score of bodily-kinesthetic intelligence is from the Physical Education department. This finding is also consistent with the outcome of the study by Shearer (2004). Moreover, the present study revealed respondents from physical education departments had significantly higher self-estimates of bodily-kinesthetic intelligence than respondents from the Chinese department. There is a significant difference among some various majors in self-estimates of bodily-kinesthetic intelligence.

Fifth, the high mean score of naturalistic intelligence is from the Biology department. This finding is partly consistent with the outcome of the study by Shearer (2004). Shearer's study revealed that the high mean score is the Science department. Moreover, the present study revealed respondents from the Biology and geography departments had significantly higher self-estimates of naturalistic intelligence than respondents from the Math department. There is a significant difference among some various majors in self-estimates of naturalistic intelligence.

Highly significant positive correlations ($p < .01$) were found among the other six intelligences except for verbal-linguistic intelligence and mathematical-logical intelligence. This finding is partly consistent with the outcome of a study by Rammstedt and Rammsayer (2000). In Rammstedt and Rammsayer's study, the inter-relationships among the various self-estimated aspects of intelligence in the male and the female samples indicated there is at least one highly significant positive correlation for each intelligence. For example, there are highly significant positive correlations among math, spatial, reasoning, memory, and perceptual speed intelligences. The present study supports Rammstedt and Rammsayer's (2000) findings that self-reports of intelligence are correlated with at least one correlation for each intelligence.

6. Conclusion

The aim of the study was to examine gender and major differences in self-estimates of different aspects of Gardner's multiple intelligences within pre-service teachers. The findings indicated that there were significant gender differences in self-estimates of verbal-linguistic, musical, math-logic, visual-spatial, and body-kinesthetic intelligences; and there were significant departmental differences in self-estimates of verbal-linguistic, math-logic, visual-spatial, body-kinesthetic, and naturalistic intelligences. Except for verbal-linguistic and math-logic intelligences, there were significant relationships among other aspects of intelligences.

As literature review mentioned, students possess different kinds of intelligences that warrant attention from teachers, teacher educators, and researchers. In order to let pre-service teachers understood multiple intelligence, this study introduced MI theory by MI methods in a teacher preparation course in Taiwan and understood how the eight intelligences are distributed within samples of pre-service teachers. Traditional teaching methods rely mostly on logical and verbal abilities, but neglect the development of students' potentials. The theory viewpoints of multiple intelligences, on the other hand, remind teachers of valuing students' balanced development in various intelligences, even to assist the development of students' weak intelligences with their strong ones. Undoubtedly, the theory of MI has paved a broad way for the possibilities and thinking that we teach students in accordance with their aptitudes. At the same time, it points out the bias that, from the traditional assessments to the whole culture, logical and verbal education prevails over art education and emotion (personality) education.

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Table 1. Standardized (and unstandardized) solution, and S. E. for eight aspects of multiple intelligence

Parameters	Factor loading	S.E.
MI → verbal-linguistic	.32(1.00) ^a	—
MI → mathematical-logical	.50*(1.87)	.34
MI → visual-spatial	.78*(2.49)	.41
MI → bodily-kinesthetic	.62*(1.94)	.31
MI → musical-rhythmic	.48*(1.93)	.31
MI → interpersonal	.74*(2.21)	.39
MI → intrapersonal	.44*(1.19)	.18
MI → naturalistic	.42*(1.34)	.26

* $p < .05$.

^a indicates parameters fixed for identification purpose, not estimated.

Note: Parameter estimates are standardized values. Unstandardized values are given in parentheses.

Table 2. Goodness-of-Fit Indices for confirmatory factor analysis

Fit index	Index value
χ^2 (df), p -value	42.39(15), $p < .05$
AGFI; CFI; TLI	.94; .96; .92
SRMR	.039
RMSEA(90% CI)	.066(.043-.090)
Critical N	246
Normed χ^2 (NC)	2.83

Table 3. Means, SD and *t*-test of MI for gender

	Males		Females		<i>t</i> value
	<i>M</i>	S.D.	<i>M</i>	S.D.	
verbal-linguistic	36.72	7.64	39.12	7.68	-3.14**
mathematical-logical	39.65	7.83	32.96	7.72	8.64***
visual-spatial	39.12	6.90	37.61	7.54	2.08*
bodily-kinesthetic	42.51	7.42	39.50	7.79	3.58***
musical-rhythmic	38.90	10.24	41.65	9.69	-2.77
interpersonal	44.04	7.00	44.83	7.77	-1.06
intrapersonal	46.66	8.36	46.66	6.66	.01
naturalistic	34.15	8.82	32.63	7.15	1.92

p<.05. p<.01. p<.001.

Table 4. Overall means and SD for different majors of MI

VI	ML	VS	BK	MR	InterP	IntraP	Natural
Industrial Education							
36.09(6.47)	40.61(8.35)	40.(6.40)	42.91(8.42)	39.58(10.88)	45.98(7.27)	48.76(10.04)	33.87(8.68)
Information Management							
36.09(6.47)	40.61(8.35)	40.(6.40)	42.91(8.42)	39.58(10.88)	45.98(7.27)	48.76(10.04)	33.87(8.68)
Business Administration							
32.17(5.53)	39.17(5.56)	39.33(4.93)	42.67(5.43)	41.83(9.15)	42.33(4.41)	45.33(9.14)	26.67(7.58)
Business Education							
37.20(5.94)	36.30(8.50)	35.40(7.23)	39.60(4.86)	41.40(7.44)	45.80(8.04)	47.20(4.92)	32.50(8.70)
Mathematics							
36.93(5.90)	39.46(7.19)	39.53(6.14)	42.33(7.14)	41.13(8.85)	46.80(6.84)	46.93(7.12)	33.53(7.94)
Chemistry							
35.80(8.73)	42.71(6.01)	38.91(6.84)	40.94(7.42)	38.11(11.12)	44.29(7.10)	44.83(6.86)	30.46(7.22)
Physics							
39.57(7.08)	41.93(6.81)	38.96(6.05)	41.61(5.80)	39.93(10.24)	42.50(5.97)	46.43(8.18)	35.82(7.98)
Biology							
33.95(6.54)	42.50(6.07)	39.82(5.84)	40.82(5.81)	39.59(9.86)	43.50(7.84)	46.41(7.69)	34.82(9.43)
Physical Education							
38.07(9.72)	37.57(6.78)	38.86(8.59)	41.43(7.94)	42.21(7.23)	42.64(5.73)	48.14(6.32)	38.93(11.02)
Special Education							
36.67(7.32)	31.29(5.63)	36.29(4.86)	47.57(5.64)	39.48(6.42)	47.29(6.29)	48.57(7.40)	34.19(7.43)
Guidance and Counseling							
38.62(6.64)	32.12(6.84)	38.31(7.67)	39.12(6.88)	41.96(12.32)	43.73(8.21)	46.81(5.89)	30.92(8.22)
English							
38.75(8.68)	32.45(8.45)	34.78(6.90)	39.29(8.51)	42.71(10.14)	46.65(7.59)	47.69(7.36)	31.62(6.79)
Chinese							
40.50(6.64)	31.32(7.20)	34.35(6.13)	40.32(6.96)	40.68(9.78)	41.65(6.90)	45.62(4.94)	31.76(5.93)
Art							
43.33(8.02)	29.08(5.51)	34.50(7.45)	35.11(7.69)	39.08(9.23)	43.83(8.95)	45.81(8.23)	34.25(6.63)
Geography							
39.29(6.89)	32.33(8.07)	46.71(4.28)	41.25(6.59)	43.63(10.03)	43.17(6.52)	45.92(6.21)	30.79(7.45)
Total							
38.10(7.74)	35.82(8.43)	38.26(7.30)	40.79(7.76)	40.48(10.01)	44.49(7.45)	46.66(7.42)	33.28(7.93)

Table 5. Mean percentage scores by high/low pre-service teacher department groups

	Groups	
	High M (Department)	Low M (Department)
verbal-linguistic	43.33(Chinese)	32.17(Information management)
mathematical-logical	42.71(Math) 42.50(Physics) 41.93(Chemistry)	29.08(Chinese)
visual-spatial	46.71(Arts)	34.78(Guidance & Counseling) 34.50(English) 34.35(Chinese)
bodily-kinesthetic	47.57(Physical education)	35.11(Chinese)
musical-rhythmic	43.63(Art)	38.11(Math)
interpersonal	47.29(Physical education)	41.65(English)
intrapersonal	48.76(Industrial education) 48.57(Physical education)	44.42(Geography)
naturalistic	38.93(Biology)	26.67(Information management)

Table 6. Means, SD, *F* value and *Scheffé* tests of verbal-linguistic intelligence for different major

Verbal-linguistic intelligence					
group	Department	<i>M</i>	S. D.	<i>F</i> value	<i>Scheffé</i> test
1	Industrial Education	36.09	6.48	3.04 ^{***}	
2	Information Management	32.17	5.53		
3	Business Administration	37.20	5.94		
4	Business Education	36.93	5.90		
5	Mathematics	35.80	8.73		13>1, 5, 7
6	Chemistry	39.57	7.08		
7	Physics	33.95	6.53		
8	Biology	38.07	9.72		
9	Physical Education	36.66	7.32		
10	Special Education	38.61	6.63		
11	Guidance and Counseling	38.74	8.68		
12	English	40.50	6.64		
13	Chinese	43.33	8.02		
14	Art	39.29	6.88		
15	Geography	37.78	8.12		

p<.001.

Table 7. Means, SD, *F* value and *Scheffé* tests of mathematical-logical intelligence for different major.

Math-logical intelligence					
group	Department	<i>M</i>	S.D.	<i>F</i> value	<i>Scheffé</i> test
1	Industrial Education	40.60	8.34	13.66 ^{***}	
2	Information Management	39.16	5.56		
3	Business Administration	36.30	8.49		
4	Business Education	39.46	7.18		
5	Mathematics	42.71	6.00		1, 6, 7 >
6	Chemistry	41.92	6.80		9,10,11,12, 13
7	Physics	42.50	6.06		5 >
8	Biology	37.57	6.77		
9	Physical Education	31.28	5.63		9,10,11,12, 13,
10	Special Education	32.11	6.84		14, 15
11	Guidance and Counseling	32.45	8.45		
12	English	31.32	7.20		
13	Chinese	29.08	5.51		
14	Art	32.33	8.06		
15	Geography	33.18	5.46		

^{***}
p<.001.

Table 8. Means, SD, *F* value and *Scheffé* tests of visual-spatial intelligence for different major

visual-spatial intelligence					
group	Department	<i>M</i>	S.D.	<i>F</i> value	<i>Scheffé</i> test
1	Industrial Education	40.89	6.39	6.55 ^{***}	
2	Information Management	39.33	4.92		
3	Business Administration	35.40	7.22		
4	Business Education	39.53	6.13		
5	Mathematics	38.91	6.83		
6	Chemistry	38.96	6.05		
7	Physics	39.81	5.83		
8	Biology	38.85	8.59		
9	Physical Education	36.28	4.85		
10	Special Education	38.30	7.67		
11	Guidance and Counseling	34.78	6.89		
12	English	34.35	6.13		
13	Chinese	34.50	7.45		
14	Art	46.70	4.27		
15	Geography	39.84	8.27		

^{***}
p<.001.

Table 9. Means, SD, *F* value and *Scheffé* tests of bodily-kinesthetic intelligence for different major

Bodily -kinesthetic intelligence					
group	Department	<i>M</i>	S.D.	<i>F</i> value	<i>Scheffé</i> test
1	Industrial Education	42.91	8.42	3.43 ^{***}	
2	Information Management	42.66	5.43		
3	Business Administration	39.60	4.86		
4	Business Education	42.33	7.14		
5	Mathematics	40.94	7.42		
6	Chemistry	41.60	5.80		
7	Physics	40.81	5.81		9>15
8	Biology	41.42	7.94		
9	Physical Education	47.57	5.64		
10	Special Education	39.11	6.88		
11	Guidance and Counseling	39.29	8.51		
12	English	40.32	6.96		
13	Chinese	35.11	7.68		
14	Art	41.25	9.11		
15	Geography	41.03	7.76		

p<.001.

Table 10. Means, SD, *F* value and *Scheffé* tests of self-estimated naturalistic intelligence for different major

naturalistic intelligence					
group	Department	<i>M</i>	S.D.	<i>F</i> value	<i>Scheffé</i> test
1	Industrial Education	33.87	8.67	2.79 ^{***}	
2	Information Management	26.66	7.58		
3	Business Administration	35.50	8.69		
4	Business Education	33.53	7.93		
5	Mathematics	30.45	7.21		
6	Chemistry	35.82	7.98		
7	Physics	34.81	9.43		
8	Biology	38.92	11.02		8, 15>5
9	Physical Education	34.19	7.43		
10	Special Education	30.92	8.21		
11	Guidance and Counseling	31.62	6.79		
12	English	31.76	5.93		
13	Chinese	34.25	6.63		
14	Art	30.79	7.45		
15	Geography	37.25	6.72		

p<.001.

Table 11. Correlations among different types of self-estimated intelligence

	1	2	3	4	5	6	7	8
Verbal	1							
Math	.09	1						
Visual	.18(**)	.43(**)	1					
B/K	.15(**)	.32(**)	.47(**)	1				
Musical	.32(**)	.13(**)	.41(**)	.33(**)	1			
InterP	.32(**)	.16(**)	.27(**)	.44(**)	.33(**)	1		
IntraP	.42(**)	.24(**)	.26(**)	.26(**)	.22(**)	.34(**)	1	
Natural	.17(**)	.20(**)	.38(**)	.27(**)	.17(**)	.15(**)	.24(**)	1

** p<.01.



Choice for Leading Industry in Guangdong Industry

Yanping Zhang

Business School of Central South University

Changsha 410075, Hunan, China

Business School of Guangzhou University

Guangzhou 510006, Guangdong, China

E-mail: zhangyanping213@163.com

Mingsheng Li

Business School of Central South University

Changsha 410075, Hunan, China

Weijian Li

Business School of Guangzhou University

Guangzhou 510006, Guangdong, China

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Three other students participated in the project: Guodao Ye, Yuecheng Yu & liangjing Wen.

Abstract

Regional leading industry is the core power to impel development of regional economy; to push forward development of regional leading industry is a necessary channel for realizing efficient allocation of regional resources, and is the key to boosting rationalization and high-level of regional industrial structure. In this article, the authors establish index system of choice for industrial leading industry, apply factor analysis, and comprehensively assess and select leading industries in Guangdong Province according to factor analysis model.

Keywords: Industry, Regional leading industry, Factor analysis, Industrial choice

Regional leading industry refers to a specialized industry or industry cluster that has/have broad market prospects and strong technical progress ability, represents/represent direction or tendency of industrial structural evolution, can spur and promote the entire regional economic development in a certain period of a local economic development. Studies at home and abroad indicate that, regional leading industry is a core power to impel development of regional economy; to push forward development of regional leading industry is a necessary channel for realizing efficient allocation of regional resources, and is the key to boosting rationalization and high-level of regional industrial structure. The rapid growth of industrial economy is the primary motive of rapid growth of the entire economy. However, a comprehensive view of studies on choice for intra-regional leading industry in Guangdong Province, we can find that most studies lay particular stress on qualitative analysis, with relatively fewer quantitative analysis and studies. Therefore, the authors of this article adopt the factor analysis method, select and confirm those leading industries in Guangdong Province with a combination of qualitative analysis and quantitative analysis.

1. Establishment of choice of index system for leading industries

Currently, there still exist differences between choice and assessment studies in regional leading industries, but there is also some commonness. This article establishes the six index systems for assessing and choosing regional leading industries (See Table 1). These index systems mainly refer to the model in “Model of Choice for Regional Leading Industry and Its Empirical Study” by Zhang, Xiaoping, and make some corrections based on this model.

INSERT TABLE 1 Here

2. Application and comprehensive evaluation of the model

This article applies factor analysis to comprehensively assess and select leading industries in Guangdong Province.

2.1 Application of the model

We can calculate the factor scores and comprehensive scores of all industries in Guangdong Province (See Table 2), according to factor score computation module (1-1) and the comprehensive score computation module (1-2), the variance contribution rate of all major factors, and loading factors of primary indices within all factors;

$$F_{ji} = A_{j1}X_{1i} + A_{j2}X_{2i} + A_{j3}X_{3i} + \dots + A_{jp}X_{pi} \quad (1-1)$$

$$F_j = F_{1j} + F_{2j} + \dots + F_{mj} \quad (1-2)$$

In formula 1-1, $X_{1i}, X_{2i}, X_{3i}, \dots, X_{pi}$ are respectively the value of the original variable for the sample of No. I, $A_{j1}, A_{j2}, A_{j3}, \dots, A_{jp}$ represent respectively the factor value coefficient between the factor of No. j and the original variable of No. 1, 2, 3, ..., p.

In formula 1-2, F_j ($j=1, 2, 3, \dots, 35$) is the comprehensive score of each industry; F_{mj} ($m=1, 2, 3, 4, 5, 6$) refers to the product of each primary factor value and its corresponding factor variance contribution rate.

INSERT TABLE 2 HERE

We can calculate the industries with the comprehensive score ranking the first twelve according to the overall conditions of factor score of all industries in Guangdong (See Table 2). As for choice for leading industries in Guangdong, we should avoid too high comprehensive score caused by too high factor score of all industries, and should not determine those as leading industries with a simply high comprehensive score.

INSERT TABLE 3 HERE

2.2 Comprehensive assessment of candidate industries in leading industries in Guangdong

Based on the above analysis results, we make a sequencing on available data. We classify alternative industries into five levels according to a simple statistic method, namely, the frequency of industries ranking the first twelve in all indices: the first level is a frequency above 5 times, the second level 4 times, the third level 3 times, the fourth level 2 times, and the fifth level 1 times. Industries at the fifth level just stand out in part of indices, so they are temporarily excluded from analysis of leading industries. Frequency of industries ranking the first twelve in the six factors is seen as Table 4.

INSERT TABLE 4 HERE

In the following, we are going to analyze the above industries at the four levels in details, and sort out leading industries that are adequate for the industrial development of Guangdong Province.

At the first level, Communication equipment, computer, and other electronic equipment manufacturing stands out respectively in output scale, and social benefit, especially ranking the second in geographic predominance and the third in social benefit predominance. Development of Communication equipment, computer, and other electronic equipment manufacturing has a strong external competitiveness, which accords with the export-oriented economy in Guangdong, and which, in addition, helps relieve the austere employment pressure in Guangdong. Therefore, Communication equipment, computer, and other electronic equipment manufacturing should be vigorously developed in the future in Guangdong.

At the second level, Electrical apparatus and equipment manufacturing not only has its predominance in output scale and economic benefit, but has its geographic competitiveness and technical driving predominance, which complies with requirements of the new industrialization path, and which should be defined as the leading industry to be prioritized in the future in Guangdong. Transport and communication Facilities manufacturing has also a good growth potential predominance in addition to its output scale predominance and economic benefit predominance. Furthermore, in terms of the industrialization progress, Transport and communication Facilities manufacturing is a significant symbol that a developed country has entered the high-level period of industrialization. Therefore, development of Transport and communication Facilities manufacturing is very important in propelling transformation of Guangdong from “Second, Third, First” to the industrialization anaphase of “Third, Second, First”, and it should be regarded as the leading industry to be significantly supported. In addition to its predominance in output scale, Metal product industry is at an upper-middle level in other aspects, which indicates that Metal product industry belongs to the industry with better

comprehensive level. What's more, Metal product industry is an advanced industry of real estate and mechanical equipment manufacturing, which has a great influence upon industry chain, and should be considered the leading industry in Guangdong. Although Ferrous metal mining & dressing has better comprehensive benefit, still it can't be the leading industry in Guangdong because it's a non-renewable resource, not in accordance with the principle of sustainable development.

At the third level, although Nonferrous metal mining & dressing has better industrial growth potential and technical driving predominance, still it can't be the leading industry in Guangdong because it doesn't comply with the principle of sustainable development. Fuel Gas production and supply has a strong social growth potential, geographic predominance and social benefit, but it is not fully developed in the industrial scale and economic benefit, and its capacity of technical driving is relatively weak, so it can't be the leading industry in Guangdong. Nonferrous metal mining & dressing has its technical driving predominance, but it doesn't accord with the principle of sustainable development, so it can't be regarded as the leading industry in Guangdong. Nonferrous metal smelting and rolling processing has strong industrial growth potential and technical driving predominance, but its features of high consumption of energy and high pollution don't comply with requirements of the new industrialization path, so it can't be the leading industry in Guangdong. Chemical raw material and chemicals manufacturing has its industrial scale predominance and economic benefit, and, besides, it has a great growth potential predominance. With transfer of the international chemical engineering, status of the chemical industry seems more and more significant. Therefore, it should be the leading industry to be particularly supported in the future in Guangdong. Electricity and heat Production and supply has better industrial scale, economic benefit predominance and industrial growth potential predominance, but it ranks the lowest in the geographic predominance and technical progress within the 35 industries. Therefore, it can't be the leading industry in Guangdong.

At the fourth level, Exploitation of petroleum and natural gas has better economic benefit and social benefit, and its geographic predominance and growth potential belong to the upper-middle level. Petroleum and natural gas are universally recognized most important energy resources. And ocean contains most of petroleum and natural gas resources in the world. Development of ocean energy resource industry is helpful for sufficient use of resources and for mitigating status quo of energy shortage. Therefore, Guangdong Province should positively support petroleum and natural gas as the leading industry. Plastic product industry has better output scale and geographic predominance, but it causes serious environmental pollution, which does not comply with sustainable development principle, so it can't be regarded as the leading industry in Guangdong. Furniture Manufacturing has relatively good geographic predominance, but its industrial scale is weak, without good economic benefit and technically innovative ability, so it can't be classified as the leading industry in Guangdong. Stationery and sporting goods manufacturing has better geographic competitiveness predominance and economic benefit, but it's still impossible to form a scale merit. Its technically innovative ability is weak, and its contribution to the social benefit is not obvious, so it can also not be regarded as the leading industry in Guangdong. Textile clothing, shoe and cap manufacturing has its geographic predominance and social benefit, but it belongs a traditional industry, without good technically innovative ability and social benefit, so it can't be regarded as the leading industry in Guangdong. Mechanical manufacturing of instrument, cultural and office supplies has its geographic predominance and social benefit, but in general, its foundation of industrial scale is weak, with low technical progress ability and growth potential, so it can't be classified as the leading industry in Guangdong. Special hardware manufacturing and Universal equipment manufacturing both have good technically innovative ability and social benefits. From 2005 to 2007, the average growth speed of their output attain respectively 31% and 29%, with a powerful growth trend, so they should be the leading industries to be significantly supported in the future in Guangdong. Chemical fiber manufacturing has strong technically innovative ability and growth potential, and Chemical fiber manufacturing and Chemical raw material and chemicals manufacturing are collectively called Chemical Industry, because they have relatively strong association benefit. Therefore, Chemical fiber manufacturing should also be classified as the leading industry in Guangdong. Water production and supply has its growth potential predominance, but its output scale, technically innovative ability and social benefit can't embody characteristics of the new industrialization, so it can't become the leading industry. Ferrous metal smelting and rolling processing has relatively good output scale and growth potential predominance, but it causes serious environmental pollution, and great consumption of energy resources, which doesn't comply with status quo of energy shortage in Guangdong, so it can't become the leading industry in Guangdong.

3. Conclusions

From the above analysis, it is clear those leading industries that should be prioritized include: Communication equipment, computer, and other electronic equipment manufacturing, Electrical apparatus and equipment manufacturing, Transport and communication Facilities manufacturing, Metal product industry, Chemical raw material and chemicals manufacturing, Special hardware manufacturing, Universal equipment manufacturing, Chemical fiber manufacturing, and Exploitation of petroleum and natural gas.

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Table 1. The six index systems of choice for leading industries in Gaungdong Province

Basic principle	Corresponding index	Formula
Output scale	Proportion of output value	Scale = $\frac{\text{output value of an industry}}{\text{output value of all industries}}$
	Proportion of sales revenue	Proportion of sales revenue = $\frac{\text{sales value of an industry}}{\text{total sales values of all industries}}$
	Proportion of total assets	Proportion of total assets = $\frac{\text{total asset value of an industry}}{\text{total asset values of all industries}}$
	Proportion of profit and tax	Proportion of profit and tax = $\frac{\text{profit and tax amount of an industry}}{\text{profit and tax amount of all industries}}$
	Proportion of fixed assets	Proportion of fixed assets = $\frac{\text{total fixed assets of an industry}}{\text{total fixed assets of all industries}}$
	Proportion of ownership interest	Proportion of ownership interest = $\frac{\text{ownership interests of an industry}}{\text{ownership interests of all industries}}$
Economic benefit of industry	Overall labour productivity	overall labour productivity = $\frac{\text{total output value of an industry}}{\text{employees of the industry}}$
	Profit-tax rate of fixed assets	Profit-tax rate of fixed assets = $\frac{\text{profit and tax amount of an industry}}{\text{total fixed assets of the industry}}$
	EVAR of fixed assets	EVAR of fixed assets = $\frac{\text{value added of an industry}}{\text{total fixed assets of the industry}}$
	Total asset contribution factor	Total asset contribution factor = $\frac{\text{total profits} + \text{total scots} + \text{interest expense}}{\text{average asset amount}}$
	Profit-tax rate of output value	Profit-tax rate of output value = $\frac{\text{profit-tax amount of an industry}}{\text{total output value of the industry}}$
	profit ratio of sales	profit ratio of sales = $\frac{\text{profit amount of an industry}}{\text{sales value of the industry}}$
Geographic predominance of industry	Location quotient of value added	Location quotient of value added = $\frac{\text{value added of an industry in a region} / \text{total value added in the region}}{\text{value added of the industry in the country} / \text{total value added in the country}}$
	Location quotient of total output	Location quotient of total output = $\frac{\text{output value of an industry in a region} / \text{total output value in the region}}{\text{output value of the industry in the country} / \text{output value in the country}}$
	Location quotient of employees	Location quotient of employees = $\frac{\text{employees in an industry in a region} / \text{total employees in the region}}{\text{employees in the industry in the country} / \text{total employees in the country}}$

	Market share	Market share = $\frac{\text{sales value of an industry in a region}/\text{total sales value in the region}}{\text{sales value of the industry in the country}/\text{total sales value in the country}}$
Social benefit of industry	Employment proportion	Employment proportion = $\frac{\text{employees in an industry in a region}}{\text{total employees in the industry in the region}}$
	Elastic coefficient of employment of gross product	Elastic coefficient of employment of gross product = $\frac{\text{growth speed of employees in an industry}}{\text{growth speed of the total output in the industry}}$
	Elastic coefficient of employment of value added	Elastic coefficient of employment of value added = $\frac{\text{growth speed of employees in an industry}}{\text{growth speed of value added in the industry}}$
Growth potential of industry	Increment speed of output value	Increment speed of output value = $\sqrt{\frac{\text{total output of report period}}{\text{total output of base period}}} - 1$
	Increment speed of value added	Increment speed of value added = $\sqrt{\frac{\text{value added of report period}}{\text{value added of base period}}} - 1$
	Increment speed of fixed assets	Increment speed of fixed assets = $\sqrt{\frac{\text{fixed assets of report period}}{\text{fixed assets of base period}}} - 1$
	Increment speed of profit and tax	Increment speed of profit and tax = $\sqrt{\frac{\text{profit and tax amount of report period}}{\text{profit and tax amount of base period}}} - 1$
	Increment speed of sales revenue	Increment speed of sales revenue = $\sqrt{\frac{\text{sales value of report period}}{\text{sales value of base period}}} - 1$
Technical progress of industry	Contribution rate of technical progress	Contribution rate of technical progress = $\sqrt{\frac{\text{growth speed of technical progress}}{\text{growth speed of total output}}} - 1$

Table 2. Factor score and comprehensive score of each industry in Guangdong in 2007

Industry	Comprehensive score	F1	F2	F3	F4	F5	F6
Exploitation of petroleum and natural gas	0.99	-0.41	2.24	4.91	-0.26	0.05	-0.94
Ferrous metal mining & dressing	0.08	-0.33	0.80	0.08	-1.04	0.36	1.51
Nonferrous metal mining & dressing	0.43	-0.22	1.89	-0.60	-0.62	1.42	2.35
Nonmetalliferous ore mining & dressing	-0.26	-0.54	0.01	-0.57	-0.66	0.12	0.66
Agricultural and sideline processing	-0.30	-0.29	-0.36	0.05	-0.62	-0.73	0.09
Food manufacturing	-0.32	-0.43	0.14	-0.36	-0.33	-0.85	-0.43
Beverage manufacturing	-0.37	-0.49	-0.55	0.69	-0.74	-0.98	-0.64
Smoking material product industry	0.18	-0.31	4.40	-2.11	0.15	-0.87	-1.04
Textile industry	-0.39	-0.04	-0.63	-0.40	-0.44	-0.85	-0.64
Textile clothing, shoe and cap manufacturing	-0.04	-0.27	-0.29	0.05	0.86	-0.26	-0.21
Leather, pelt, and down products industry	-0.14	-0.53	-0.20	-0.31	1.16	-0.49	-0.26
Wood processing and bamboo, rattan, palm and straw-made product industry	-0.26	-0.52	-0.35	-0.12	-0.50	-0.16	0.62
Furniture Manufacturing	-0.03	-0.72	-0.26	0.02	1.41	0.10	-0.03
Paper & Paper Products	-0.29	-0.29	-0.67	-0.09	-0.03	-0.27	-0.63
Printing industry and record medium reproduction	-0.28	-0.69	-0.46	-0.10	0.84	-0.58	-0.77
Stationery and sporting goods manufacturing	-0.03	-0.85	0.02	-0.65	2.46	-0.04	-0.59
Oil processing, coking plant and fuel processing	-0.26	-0.11	-0.22	-0.39	-0.65	-0.45	0.20
Chemical raw material and chemicals manufacturing	0.10	0.80	0.02	0.01	-0.75	0.41	-0.74
Medicine manufacturing	-0.52	-0.41	-0.30	-0.13	-0.95	-1.59	-0.28
Chemical fiber manufacturing	-0.15	-0.43	-0.61	-0.20	-0.80	1.17	1.11
Rubber product industry	-0.43	-0.64	-0.91	0.26	-0.44	-0.46	-0.35
Plastic product industry	0.10	0.02	-0.28	-0.11	1.09	0.03	0.03
Nonmetallic minerals product industry	-0.11	0.27	-0.46	-0.25	-0.45	-0.02	0.05
Ferrous metal smelting and rolling processing	-0.28	-0.07	-0.72	-0.24	-1.05	0.22	0.29
Nonferrous metal smelting and rolling processing	0.05	-0.07	-0.19	-0.13	-0.47	0.24	2.16
Metal product industry	0.22	0.24	-0.18	0.01	0.87	0.17	0.55
Universal equipment manufacturing	-0.16	-0.17	-0.87	1.04	-0.85	-0.57	0.58
Special hardware manufacturing	-0.13	-0.17	-0.37	0.17	-0.45	-0.06	0.32
Transport and communication facilities manufacturing	0.35	0.93	0.33	-0.01	-0.55	0.83	0.41
Electrical apparatus and equipment manufacturing	0.63	1.52	0.16	-0.17	1.42	-0.39	1.02
Communication equipment, computer, and other electronic equipment manufacturing	1.46	4.10	-0.08	0.82	1.78	-0.67	1.12
Mechanical manufacturing of instrument, cultural and office supplies	-0.11	-0.58	-0.27	0.05	1.37	-0.71	-0.44
Electricity and heat Production and supply	0.17	2.80	-0.11	-0.94	-2.00	0.98	-2.88
Fuel Gas production and supply	0.34	-0.67	-0.44	0.21	1.07	4.40	-1.12
Water production and supply	-0.23	-0.44	-0.22	-0.48	0.20	0.53	-1.11

Table 3. Industries with the comprehensive score ranking the first twelve

Ranking	Industry	Comprehensive score
1	Communication equipment, computer, and other electronic equipment manufacturing	1.46
2	Exploitation of petroleum and natural gas	0.99
3	Electrical apparatus and equipment manufacturing	0.63
4	Nonferrous metal mining & dressing	0.43
5	Transport and communication Facilities manufacturing	0.35
6	Fuel Gas production and supply	0.34
7	Metal product industry	0.22
8	Smoking material product industry	0.18
9	Electricity and heat Production and supply	0.17
10	Chemical raw material and chemicals manufacturing	0.10
11	Plastic product industry	0.10
12	Ferrous metal mining & dressing	0.08

Table 4. Frequency of industries ranking the first twelve in the six factors

L E V E L	Industry	Ranking of all factors						Frequency of the first twelve
		Scale predominance	Economic benefit	Social benefit	Geographic predominance	Growth potential	Technical progress predominance	
1	Communication equipment, computer, and other electronic equipment manufacturing	1	11	3	2	28	4	5
2	Electrical apparatus and equipment manufacturing	3	6	22	3	22	6	4
	Transport and communication Facilities manufacturing	4	5	15	23	5	11	4
	Metal product industry	7	13	14	9	11	10	4
	Ferrous metal mining & dressing	20	4	8	33	8	3	4
3	Nonferrous metal mining & dressing	11	14	21	21	9	2	3
	Fuel Gas production and supply	32	26	6	8	1	34	3
	Nonmetalliferous ore mining & dressing	29	10	31	27	12	7	3
	Nonferrous metal smelting and rolling	11	14	21	21	9	2	3

	processing							
	Chemical raw material and chemicals manufacturing	5	8	13	29	7	29	3
	Electricity and heat Production and supply	2	12	34	35	4	35	3
4	Exploitation of petroleum and natural gas	21	2	1	15	14	31	2
	Plastic product industry	8	20	18	7	15	17	2
	Furniture Manufacturing	34	18	12	4	13	18	2
	Stationery and sporting goods manufacturing	35	9	33	1	17	25	2
	Textile clothing, shoe and cap manufacturing	16	21	10	10	20	19	2
	Mechanical manufacturing of instrument, cultural and office supplies	30	19	9	5	29	24	2
	Special hardware manufacturing	14	25	7	19	18	12	2
	Chemical fiber manufacturing	24	30	23	30	3	5	2
	Universal equipment manufacturing	13	34	2	31	26	9	2
	Water production and supply	25	16	30	12	6	33	2
	Ferrous metal smelting and rolling processing	10	33	24	34	10	13	2



The Effect of Trade Liberalization on Chinese Rural Poverty

Shixin Li

Management College, Hunan University of Science and Technology

Xiangtan 411201, Hunan, China

E-mail: stonelsx@126.com

Abstract

There has been much controversy over the impacts of trade liberalization on poverty. Some have argued that trade liberalizations are beneficial to the poor in developing countries, while others have argued that the gains will be captured more by the non-poor. The policies of trade liberalization in China have reduced the NPRs of some agricultural products, which cut down the welfare of its producers, but the expansion in foreign trade of agricultural products rapidly reduces rural poverty. The change in foreign-trade construction of agricultural products not only impacts the welfare level of different kinds of agricultural producers, but also makes the farmers in coastal areas be the greatest gainers. This paper applies SURE with simultaneous-equations to assess the link of trade-poverty in China, and its result shows that the link of trade-poverty in China is characterized by inverted U-shape. That is, before the mid 1990s, trade liberalization in China worsens the rural poverty; and after then it is beneficial to rural poverty reduction.

Keywords: Rural poverty, Trade liberalization, Trade of agricultural products, SURE

1. Introduction

China has made remarkable progress in poverty reduction since the launching of economic reform in the late 1970s. According to the official poverty line, the rural poor population in China has declined dramatically in the past 30 years, from 260 millions in 1978 to 14.79 millions in 2007. Namely, one of significant success of China is having removed more than 245 million rural residents out of poverty. At the same time, the incidence of rural poverty has also decreased sharply during the transition period, falling from 32.9% in 1978 to 2.1% in 2007. Even according to the international poverty line (one dollar for each person every day in term of the Purchasing Power Parity), the same conclusion can be drawn that both the absolute poverty and incidence of poverty have dropped notably (See table 1). Comparing with other developing countries, the success in Chinese rural poverty reduction is more significant. If China is not included, the absolute number of the population below the poverty line in developing countries has actually increased by 100 million in the 1990s (ESCAP, 2003), and the incidence of poverty in developing and transiting countries has also declined only from 28% to 24% within 1978-1998(World Bank, 2001).

INSERT TABLE 1 HERE

Another remarkable success of China is the expansion of external trade due to the policy of opening-up. The growth rate of foreign trade exceeded the growth rate of GDP during the reform era. The average annual growth rate of foreign trade was close to 15% in the 1980s and the early 1990s. Though Asian financial crisis exerted some negative effects on the foreign trade (its annual growth rate is only about 10% during 1996-2000), the foreign trade of China has been expanded rapidly at the six years following China's accession to WTO in 2001. At the same time, with rapid growth in the volume of foreign trade, foreign trade has played more and more role in national economy. The proportion of total import and export value to GDP has increased from 9.8% in 1978 to 77.3% in 2007. The total volume of trade for the Chinese primary products (mainly agricultural products) has risen from 16,100 million. U.S. dollars to 72,100 million dollars during 1980-2001, increasing by 7.4% every year (NSBC, 2002).

Though China has made great achievements both in the poverty reduction and in foreign trade since reform and opening-up, existing studies still seldom connect these two respects. Current studies on poverty reduction in China mainly focus on analyzing the impact of the economic growth on poverty (Wei Zhong, Gustafson, 1998; Lin BoQiang, 2003) and investigating the efficiency of the national anti-poverty program and anti-poverty investment policy (World Bank, 1992; Fan, etc., 2002; Park, etc., 1998). Analyzing about the effects of foreign-trade growth on the Chinese rural

poverty has been neglected in researches. Therefore the main purpose of this paper is to assess, using both descriptive analysis and empirical test, the extent to which the growth of external trade may affect poverty in rural China. The empirical research draws an important result that the effect of trade liberalization on poverty in rural China is characterized by an inverted U shape.

Remaining parts of this paper is organized as follows. Section II presents opposite views about the effect of trade liberalization on poverty. Some argue that external trade liberalizations are beneficial to the poor in developing countries, while others have argued that the benefits are captured more by the non-poor. A describing analysis about the effect of trade liberalization on the rural poverty reduction in China is presented in Section III. In the IV section, the paper tests wholly the evidence about the impact of trade liberalization on the Chinese rural poverty. The last section gives a short policy application to the result of this paper.

2. Debates about the issue

In present studies, there has been much controversy over the link of trade-poverty. Some scholars focused on the positive static and dynamic effect of trade liberalization on economic growth, and argued that external trade liberalizations are beneficial to the poor in developing countries. On one hand, as emphasized by conventional trade theory, static economic gains refer to the role of reallocating resources that trade liberalization play in the process of economic growth. That is, under greater trade liberalization, productive resources tend to be reallocated toward activities where they are used with comparatively greater efficiency and away from less efficient activities (such as import-substitution industries or rent-seeking activities).

On the other hand, the literature on endogenous growth has emphasized the existence of dynamic gains in external trade, which are generated through various economic mechanisms and thereby affect the rate of economic growth in the long run. Particularly, it has been suggested that trade liberalization may facilitate the acquisition of various new inputs, expensive and higher-quality intermediate goods and improved technologies, which enhance the overall productivity of the economy. In the model of Romer (1994), a greater variety of inputs do more for production than a greater quantity of a narrow range of inputs. Because only a narrow range of specialized intermediate goods can be profitably produced in an economy where external trade is restricted, access to a variety of foreign inputs at a lower cost may shift the production possibility frontier outward, and thereby may raise the economy-wide productivity. Moreover, the mechanism through which increased productivity and growth rates occur as an economy liberalize its foreign trade is not limited to the acquisition of more specialized intermediate inputs and advanced machinery from trading partners; there are still many types of useful knowledge that are not embodied in material inputs (such as production engineering and information about changing product patterns), but can also be transferred as a result of trade with more advanced countries. As argued by Romer (1992), in practice, the transmission of ideas may be important as, if not more important than, the transmission of new inputs.

Besides theoretical analyses, there is some empirical evidence arguing that trade liberalization has positive impacts on economic growth. Studies by Irwin and Tervio (2002) suggested that households have higher incomes in countries where foreign trade is liberalized. Using a computable general equilibrium framework, which is more recent theories of trade and growth, Klenow and Rodriguez-clare (1997) accounted for product variety effects through a production function in which fewer intermediate input varieties lead to productivity losses and lower output, despite the same capital and labor inputs. They found that accounting for such effects can quadruple the static gains from unilateral trade liberalization. The empirical studies by Wacziarg (1998) found that external trade is the most important channel through which the learning-by-doing and growth effects of these spillovers occur. They found that these effects are largest in countries with higher levels of education. Finally, a recent study by the World Bank (2002) suggests that the developing countries where the levels of trade liberalization are highest in the last two decades have averagely grown the fastest. These countries managed to reduce import tariffs, on average, by 34 percentage points since 1980. Comparatively, there was no growth in per capita incomes over the period in those developing countries whose average import tariffs only dropped 11 percentage points.

Views mentioned above prove that foreign trade is good for growth. And growth is allegedly good for the poor (For example, Dollar and Kraay (2001) claimed that increased growth raises averagely the incomes of the poor in proportion to those of the population). Therefore, these scholars conclude that trade liberalization is good for the poor.

However, some other scholars have argued that the benefits will be captured more by the non-poor and the effect of trade liberalization on poverty reduction is negative at some time. Wholly, causes they provided for this can be summarized into four points as following.

First, the static effect of trade liberalization is not confirmed in a short run. As mentioned above, under trade liberalization, productive resources in an economy can be used more efficiently in the long run, and thereby higher growth rates and lower poverty can be enjoyed. But in the short term, opening a country's markets to foreign firms tends to reduce the market power of domestic firms and exert greater competitive pressures on them, even forcing some

of them out of business. The inability to compete, as well as the presence of labor market rigidities (segmentation due to minimum wage legislation, wage-setting behavior by firms or trade unions, or register system, as well as imperfect mobility across sectors), may hamper the reallocation of labor among sectors, especially between nontradables and tradables that usually enjoy a reduction in tariffs (Agénor and Aizenman, 1996). As a result, both unemployment and poverty may increase and persist over time.

Second, it is difficult, in short run, to play role for the effects of scale economies and learning-by-doing, which are emphasized in the new theories of trade and growth. These effects usually take place in an economy producing advanced manufactured products, such as high-technology goods. However, if a country is lagging behind technologically and has an initial comparative advantage in lower-technology sectors, trade liberalization may reduce the growth rate (Matsuyama, 1992). Indeed, exports of most developing countries mainly consist of raw materials (including energy and agricultural products) and relatively low-technology manufactured goods (such as textiles). Even though trade liberalization may be beneficial for these developing countries to assimilate advanced production techniques and technologies and thereby enable them to shift toward the production of goods and services through which the dynamic effects of trade liberalization can be gained, there may still be a transition period during which these effects may be limited. It has also been argued that the expansion of foreign trade may discourage activities of domestic research and development, for instance by inducing these developing countries to allocate too much of their limited skilled labor to the activities of producing manufactured goods. In such conditions, paradoxically, restrictions on trade may accelerate growth.

Third, trade liberalization may also negatively affect poverty reduction by decreasing the demand for unskilled labor and widening income gap. For instance, in some countries of Latin America, the policies of trade liberalization during the 1980s and 1990s has led to a decline in the demand for unskilled labor and worsening income distribution. A studies by Beyer, Rojas, and Vergara (1999) found that trade liberalization, as measured by the volume of trade over GDP, widened the wage gap between skilled and unskilled labor during this period in Chile. A possible explanation for this phenomenon is that trade liberalization and greater openness has introduced advanced and higher-level technology, the use of which requires skilled labor. The reason is that the cost of imported capital goods depends largely on tariffs that are incurred in purchasing a unit of capital goods abroad. Therefore, trade liberalization may lead to lower import tariffs, which may translates into a fall in the cost of capital goods, further leading to an increase in the use of capital. Because there is a high degree of complementarity between skilled labor and capital, and a high degree of substitutability between unskilled labor and capital, more capital used in economy would require more skilled labor and less unskilled labor. Thereby, if the supply in both categories of labor is constant, the demand for skilled labor would increases and the demand for unskilled labor would decreases, which would widen the wage gap between skilled and unskilled labor. All of these may translate into higher unemployment for unskilled labor and worsened income distribution, and eventually worsening poverty.

Finally, trade liberalization in developing country is unfavorable to the accumulation of human capital, which is an important indicator of broadly-defined poverty. Some theoretical models suggest that, in countries where skills are initially scarce, trade liberalization may lead to a decrease in the accumulation of human capital, which limits the ability of the poor to increase income and to break away from the poverty. For instance, Findlay and Kierzkowski (1983) used a model of perfect capital markets to analyze the accumulation of human capital and the supply of skilled labor in countries that are initially skills-scarce. They found that trade liberalization makes cheaper skills-intensive import goods available and decrease in demand for skilled labor, which may reduce the rewards to education and lower the accumulation of human capita. His analysis is based on the assumption of credit constraints, which limit the ability of unskilled workers to finance the education needed to become skilled.

The debate is still continuing. There are two main reasons for the difference in views. The first is that different observers analyzed the issue with different assumptions and thereby drew different conclusion. The second is that the link of trade-poverty changes notably in various countries and thus studies with different cases of various countries usually lead to opposite views. In whole, the comparatively accurate conclusion may come from the analysis of special country case. Thus, this paper only analyzes the case of the post-reform China in the following sectors.

3. A descriptive analysis

Since the end of 1978, besides implementing a series of economic reform measures, China has also pursued progressively the policies of trade liberalization, mainly including reducing import tariff, cutting down or canceling import quota, removing government's control on external trade, free convertibility of RMB (currency in China) under current account. These policies of trade liberalization have not only promoted the rapid growth of national economy, but also have exerted great influences on the expansion in the foreign trade of Chinese agricultural products and the change in China rural poverty.

First, the trade liberalization has reduced the nominal protection rates of relevant agricultural products and affected largely the change of rural poverty. Since reform and openness-up, through progressively reducing the tariff rates and

removing most of import quota, China has decreased the average tariff rate from 52.3% in initial stage of reform to 11% in 2003 and largely adjusted the protective measures of external trade. The downward modulation of the tariff has made the nominal protection rates (NPRs) drop (see table 2). A Study by Huang, Rozelle and Chang (2004) indicated that the nominal protection rates of agricultural products in China dropped sharply during 1980-2001. With China's accession to WTO in 2001, the nominal protection rates have further dropped and will continuously drop in the future five years. The decline of the nominal protection rates has made the price of domestic market draw progressively close to the international price, to some extent that have removed the twist of domestic price. Removing the price twist has optimized resource distribution, promoted the economic growth, and thus helped to reduce the rural poverty. At the same time, however, it has also reduced the protection for some domestic agricultural products, and exerted competitive pressure on the producers of these goods. Especially, weakening the protection for agricultural products such as the wheat, maize, cotton, corn and soybean, etc., has reduced its export, thus affected negatively the welfare of those peasants who product these goods.

INSERT TABLE 2 HERE

Second, the trade liberalization has promoted the growth of agricultural product trade, thus improved the welfare of farm households. During the reform period, though the proportion of the volume for agricultural product trade to the volume for total trade decreased constantly, the total external trade volume of agricultural products increased progressively and kept in favorable balance state at all times. The import of the food and fodder has increased from 2916 million U.S. dollars in 1980 to 10,475 million dollars in 2003, while the export of the same products has increased from 2,972 billion U.S. dollars to 17,255 billion dollars during the same period (see table 3). The expansion in the foreign trade of agricultural products increased largely the income levels of farm households, and thus was beneficial to reducing the rural poverty in China.

INSERT TABLE 3 HERE

Finally, the trade liberalization has promoted the change in the foreign trade structure of agricultural products and impacted largely the welfare levels of farm households. Just as what the traditional trade theory shows, the change in the external trade structure of China's agricultural products since reform and openness has reflected the comparative advantage characteristic of China's agricultural trade. The net export of the land-intensive products (such as the cereal, rape seed and sugar crops) declined and the net export of labor-intensive products (such as horticulture products and livestock products) that have high added value increased (table 3). This structure change has exerted two effects on the welfare levels of farm households. First, it has changed the welfare levels of different farm households who produced different agricultural products. On one hand, the expansion in the net export of labor-intensive agricultural products has increased the income of farm households who produced these goods, has raised the education levels of their children, and thus has improved the conditions of this kind of poor rural population. On the other hand, the decline in the net export of land-intensive agricultural products has worsened the income distribution of farm households who produced these goods, has decreased the education levels of their children, and thus has worsened the condition of this kind of poor rural people. Second, it has made farm households in different areas be benefited unequally. Farmers in coastal areas have more and better produced the products that have comparative advantage at present, such as rice, the livestock and horticulture products. The proportion in the total export of these products has risen and thus its net export kept increasing constantly. Oppositely, farmers in inland areas have trended to plant agricultural products that do not have comparative advantage, such as wheat, soybean and cotton. The proportion in the total export of these products kept dropping, and thus its net export kept declining constantly. Therefore, comparing to the farm households in inland areas, the farmer households in coastal areas became the greater gainer in the process of the trade liberalization.

These two effects of the change in foreign trade structure of agricultural products can be proved by the data in table 4. The first effect can be confirmed by the information in the table as following: Lower is income per capita of farm households, larger is the proportion of their land-intensive agricultural products, which are less competitive in international markets; higher is income per capita of farm households, larger is the proportion of their labor-intensive agricultural products, which are more competitive in world markets. For example, 64% of the income for farm household group with lowest income in western areas came from agricultural products that are less competitive; 72% of the income for farm household group with the highest income in east areas came from agricultural products that are more competitive. The second effect can be confirmed by the information in the table that income per capita of farm households who live in inland areas is lower and income per capita of farm households who live in coastal areas is higher. For example, income per capita of the poorest rural household group in the western regions is only 356 Yuan, which is only 60% of the income of the poorest rural household group in coastal areas (598 Yuan). Income per capita of the richest rural household group in the eastern areas is 8040 Yuan, which is more than twice times of the income per capita of the richest rural household group in the western areas (3961 Yuan).

INSERT TABLE 4 HERE

Prospecting the future indicates that, after China's accession to the WTO, fulfilling its relevant obligations will deepen

further the policy of trade liberalization. The tariff rate of most import farm goods will continue dropping and nominal protection rates of most agricultural goods will be reduced; the external trade of farm products will continuously expand; and the structure in the foreign of agricultural products will further be adjusted to suit for the demand in international markets. Meeting the commitments in agriculture will directly affect China's agricultural sector plus its food, feed and fiber processors, as well as consumers of food and beverages. Imports of numerous land-intensive farm products may increase, and most observers presume that will put downward pressure on prices received by China's farmers, and thus will exert negative effects on the welfare of farm households. However, reduced protectionism of foreign against China may boost output and exports of some labor-intensive farm products in which China still has a comparative advantage, and thus may produce the positive welfare effect. In addition, farm households will be affected indirectly by many of the other commitments China has made in its WTO Accession Protocol. Especially important will be the arrangements for phasing out the 'voluntary' export restraints on China's textile and clothing trade, and the reductions in protection of the motor vehicles and parts industry. So too will be the myriad commitments affecting the services sector, including state trading enterprises. Those changes, together with the promised increase in a wide range of agricultural imports, will allow China to exploit more fully its strong comparative advantage in unskilled labor-intensive products – both farm and non-farm (Anderson, 1990). All of these may affect positively employment, income, and poverty of households who live below poverty line.

4. An empirical analysis

The impact of foreign trade expansion on poverty in rural China is descriptively analyzed above, but more accurate quantitative relation between trade and poverty must be estimated by econometric models. There are two issues must be solved in the estimation of this paper. One is choosing what indexes to measure trade liberalization, and the other is the possible nonlinearity of the relationship between foreign trade and poverty.

It is an arduous task to measure openness, especially, to find a suitable single index of measuring trade liberalization. Various indexes of measuring trade liberalization have been used in existing studies, including tariffs, nontariff barriers, effective rates of protection, relative prices, import penetration, export intensity, and deviations of actual from predicted trade flows or volumes (Harrison and Hanson 1999). It is discovered that choosing single index to measure trade liberalization might bring about some deviations. For example, using the import tariff is unable to state the situation of the non-tariff trade barriers. Therefore, according to the method of Wacziarg (1998), I amalgamate several single indexes and reconstruct them into a composite index of trade liberalization (TRADE). The key step of reconstructing this composite indicator is to determine the weight of each single indicator. The method adopted here for this aim is to regress the trade volume over GDP with these single indicators and other factors. For simplicity, I only choose three single indicators as following: (a) *OPEN*, the percentage of import-export volume in GDP, which is used to state the degree of openness; (b) *TARIFF*, the average tariff rate (that is, total tariff revenue divided by the value of imports), which is correlated with the degree of protection; (c) *CTOT*, the rate of change in the trade terms, which reflect the improvement degree of the foreign-trade environment.

Discussions on this issue usually have focused on the possibility of linear, negative/positive relationships between trade liberalization and poverty. However there are also possible nonlinearities, which have seldom been acknowledged in the debates on the benefits and costs of trade liberalization. Because these nonlinearities may alter the sign of the relationship between foreign trade and poverty, understanding their causes is important not only for theoretical analyses but also for empirical test. For simplicity, I only consider here two types of effects that bring about these nonlinearities. The first is an *output effect*, which means that trade liberalization may improve the efficiency in the allocation of domestic productivity resources and thus may exert impact on output. According to Greenaway, Morgan and Wright (2002), this effect has a J-curve shape: at first, output falls due to the drop of output in import-competing industries and then increases gradually as a result of the expansion in exportable sectors. Assuming for simplicity a one-to-one, inverse relationship between income and poverty, this implies that trade liberalization has an inverted J-curve effect on poverty.

The second effect of trade liberalization is a *relative wage effect*, which reflects the change of the skilled-wage differential led by trade liberalization. According to Harrison and Hanson (1999), this effect has an inverted U shape. The skilled-unskilled wage differential increases initially with trade liberalization, possibly because capital goods can be imported increasingly at lower cost and may substitute away unskilled labor. Employment of that category of labor falls initially and poverty tends to increase. Over time, however, the initial widening in wage differentials may lead to investment in human capital and a gradual increase in the supply of skilled labor, which would tend to narrow the wage differential across skill categories, and higher degrees of liberalization may reduce poverty. This second effect may thus take the form of an inverted U-shape relation.

Statement above shows that, operating either through output or relative wages, the initial and longer-run effects of trade liberalization on poverty differ in sign: although poverty may rise in the short run, as output increases and investment in education rises, poverty begins to fall. Therefore, in order to determine the sign of trade-poverty relation, I assume that the relation is quadratic. Thus while using index *TRADE*, I also used index $TRADE^2$; the latter is the square of the

former.

The dependent variable used in the regression of this paper is poverty incidence (PI), namely the proportion of the poor population to the total population. Besides the index of trade liberalization (TRADE and TRADE²), the independent variables also include macroeconomic and structural "controlling" variables as following:

- (a) Income per capita (PGDP) and its square (PGDP²), which is used for investigating the impact of the economic growth on poverty;
- (b) The income distribution (INE), which captures the impact of the income distribution on poverty and is here substituted by the income gap between the urban and rural areas (the rationality of this substitution has already been verified by scholars (Tsui, 1993) in theory).
- (c) The proportion of agricultural output to GDP (AGR), which reflects the impact of agriculture growth on the rural poverty.
- (d) The proportion of township-enterprise output to GDP (TVE), which explains how the foreign-trade expansion of township enterprise affects the rural employment and poverty.
- (e) The annual inflation rate in term of CPI (INFLATION), which state the impact of fluctuation from the macroeconomic environment on poverty incidence.

Because foreign trade may exert both direct and indirect influences on poverty, for example, through economic growth and income distribution, a simple OLS analytic method with single equation is unable to capture such complicated quantitative relation. Therefore, I adopt the form of the simultaneous equations to estimate the link of trade-poverty.

$$PI = f(PGDP, PGDP^2, INE, AGR, TVE, INFLATION, TRADE, TRADE^2)$$

$$PGDP = f(INE, TVE, INFLATION, TRADE, TRADE^2)$$

$$INE = f(PGDP, PGDP^2, INE, AGR, TVE, INFLATION, TRADE, TRADE^2)$$

$$TRADE = f(PGDP, PGDP^2, INE, AGR, TVE, INFLATION)$$

In order to control the dependence of residuals between every equation, I chose Seemingly Unrelated Regression (SURE) as a method for these simultaneous equations to estimate the relation. All data used in the regression are the provincial data for 1985-2003. The result of the SURE with simultaneous equations is provided in table 5.

INSERT TABLE 5 HERE

The result showed in table 4 suggests that the signs for the estimated coefficients of the variables in the poverty equation are accordant with expectancy. For the "controlling" variables reflecting the changes in macroeconomy, the estimated coefficient of PGDP is significantly negative, which shows that poverty incidence has obviously dropped with the rising of GDP per capita over time. However, the estimated coefficient of PGDP² is positive, which suggests that the declining speed of poverty incidence has been slowed down after GDP per capita rises to certain extent. The estimated coefficient of INE is noticeably positive, indicating that the expansion in income gap between urban and rural areas has heightened the poverty incidence. This result has strong policy application that income distribution inclining towards rural residents may further reduce the poverty incidence under the same conditions.

For the "controlling" variables reflecting the changes in economic structure, the estimated coefficient of AGR is significantly negative, which suggests that the fast growth of agriculture was beneficial to the poverty reduction when economic growth and income distribution are be controlled. The estimated coefficient of TVE is remarkably negative, reflecting the fact that when other factors are controlled, the development of the township enterprise was beneficial to reducing poverty because they have absorbed numerous rural employees. The Estimated coefficient of INFLATION is not statistically significant and its sign is positive, as indicates that the shock of macroeconomic environment in China exert a small positive influence on poverty.

The coefficient of trade-liberalization index is the focal point investigated here. The Estimated coefficient of TRADE is significantly negative and that of TRADE² is positive, which suggests that the link of trade-poverty in China has been characterized by the shape of inverted U. At the initial stage of trade liberalization, poverty in rural China has increased with the constant expansion in foreign trade; and then it has dropped after the trade growth reached some "threshold" value. Note that this estimated result is a net effect of trade liberalization on poverty, without considering the impacts of other factors, especially without considering the effect of economic growth resulted from non-foreign-trade factors.

This inverted U-shape relation between trade and poverty in rural China can be possibly explained as following. In initial stage for the trade liberalization, the system of household register limited the flow of labor; section segmentation restricted the flow of capital; higher nominal protection rates twisted domestic prices; foreign equipments imported expansively at lower cost took the places of unskilled labor in factories; government's control on foreign trade restrained the behaviors of the maximizing profit. Therefore the gains of the expansion in foreign trade were captured by the non-poor, and thus trade liberalization was unfavorable to the poverty reduction. With the constant promotion of reform and openness, most of the restrictions mentioned above were removed and the efficiency of resource reallocation resulted from the foreign-trade expansion was embodied in economic growth, making it possible that the poor gained more and more from trade liberalization and thus rural poverty in China has declined constantly.

There is a threshold value in the inverted U-shape link between trade and poverty. Shifting from the left of this value to right, its sign changes from positive sign to negative one. If the link of trade- poverty is quadric, we can let α ($\alpha > 0$) be the coefficient of the linear term and β ($\beta > 0$) the coefficient of the squared term, and then the threshold value beyond which globalization starts reducing poverty is $-\alpha/2\beta$. Therefore, according to the estimated coefficients of TRADE and TRADE² in the poverty equation, it can know that the threshold value in China is 7.61. Using the value of OPEN, TRIFF and CTOT in every period to calculate, conclusion can be draw that this threshold value was reached in the middle of 1990s in China. In other words, the trade liberalization worsened the rural poverty before the middle of 1990s and has been beneficial to reducing poverty after then.

5. Conclusion and policy application

There has been much controversy over the impacts of trade liberalization on poverty. Some have argued that external trade liberalizations are beneficial to the poor in developing countries, while others have argued that the gains will be captured more by the non-poor. These debates are due to different assumption and various cases in different countries.

Descriptive analysis on cases in China provided by this paper suggests that the answer of this issue itself is ambiguous. The policy of trade liberalization in China has reduced the nominal protection rates of agricultural products, removed in part the twist of domestic price, optimized resource distribution, promoted economic growth, and thus was beneficial to reducing the rural poverty. In addition, the expansion in foreign trade of the agricultural products has increased the general income of farm households and reduced the rural poverty. However, the decline in the nominal protection rates of some agricultural product has decreased the welfare levels of its producer, and thus was unfavorable to the poverty reduction of farm households who produce this kind of goods. Especially, the change in the foreign trade structure of agricultural products has already impacted the welfare levels of different kinds of agricultural producers, and made farm households in coastal areas become the greatest gainer, which has widened the regional income gap and hindered the steady and continuous reduction of the poverty.

The ambiguous conclusion draw above makes the quantitative analyses on the link of trade- poverty in China necessary. Thus a seemingly unrelated regression with simultaneous equations is adopted in this paper. Conclusion resulted from this regression shows that the effect of trade liberalization in China on poverty is characterized by the shape of inverted U. Namely, the trade liberalization in China worsened the rural poverty before middle period of 1990s, and was beneficial to reducing the rural poverty after then.

The conclusions stated above have important policy applications. The policy makers should at least pay attention to the following several issues.

- The inverted U-shape link of trade-poverty indicates that greater trade liberalization can bring about positive effect on poverty reduction, which requires policy makers further to open their markets to international trade. It is suitable for China to fulfill the legal obligations that China has promised in the WTO Accession Protocol. In addition, various kinds of obstacles restraining resource rational reallocation must be removed progressively as to utilize fully the foreign trade advantage.
- Up till now, the contributions of foreign-trade expansion in China to the rural poverty reduction have come mainly from the export of labor-intensive agricultural products. However, this gain is temporary and difficult to maintain for a long time. Therefore, while fully utilizing the export expansion of labor-intensive products to promote the rural poverty reduction, the technological progress must also be advanced with all strength. For this aim, government must invest more funds to develop education and scientific research, especially to develop education of the poverty-stricken area and agric-scientific research.
- Because the agricultural structural adjustment in coastal areas is suitable to the development of foreign trade, farm households there become the greatest gainer of trade liberalization. Therefore, in order to reduce efficiently poverty, especially the western rural poverty, the agricultural production structure must be adjusted, shifting it from land-intensive production to labor-intensive production.
- Though trade liberalization has brought great gain for the whole country, it also has exerted different welfare impact on different social colonies, which has made the welfare of some households, especially the poor families,

suffer losses. Thus the compensative domestic policy must be put in place in time in order to adjust and compensate the loser and offer enough security networks for them.

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Table 1.

	Official Government Estimates			International Standards (\$1/day, PPP)	
	Poverty line (Current Yuan)	Poor population in rural areas (million)	Share of rural poor population (%)	Poor population in rural areas (million)	Share of rural poor population (%)
1978		260	32.9		
1979		239	30.2		
1984	200	89	11.0		
1988	236	86	10.4		
1989	259	102	11.6		
1990	300	85	9.4	280	31.3
1991	304	94	11.0	287	31.7
1992	317	80	8.8	274	30.1
1993	350	75	8.3	266	29.1
1994	440	70	7.7	237	25.9
1995	530	65	7.1	200	21.8
1996	580	58	6.3	138	15.0
1997	640	50	5.4	124	13.5
1998	635	42	4.6	106	11.5
1999	625	34	3.9		
2000	625	32.09	3.4		
2001	630	29.27	3.2		
2002	627	28.2	3.0		
2003	637	29	3.1		
2004	668	26.10	2.8		
2005	683	23.65	2.6		
2006	693	21.48	2.4		
2007	785	14.79	2.1		

Table 2. Nominal Protection Rates of China's main agricultural product (%) (Tariff or tariff equivalence)

Goods	1995	1997	2001	2010
Rice	-5	-5	-3	0
Wheat	25	17	12	0
Feed grains	20	28	20	0
Cotton	20	17	17	0
Oilseed	30	28	32	0
Sugar	44	42	40	0
Vegetables and fruits	-10	-8	-4	-2.5
Meat	-20.0	-19	-15	-2.6
Dairy	30	30	30	0

* The first three volume data stem from Huang and Rozelle (2002). The last volume data comes from assumption as follow: besides vegetables fruit and meat, the nominal protection rate of other goods will drop to 0 by 2010

Table 3. The Structure of Chinese food and fodder trade during 1980-2003 (million dollars)

	1980	1985	1990	1995	2000	2001	2002	2003
Export:								
Living animal and meat	745	752	1221	1822	1628	1976	1008	973
Dairy	71	57	55	61	188	192	194	222
Fish	380	283	1,370	2,875	3705	4231	4690	5514
Grain, oil and oilseed	481	1,306	1,237	1,608	2667	1835	2422	3714
Vegetables and fruits	1074	1260	2293	3922	4367	4931	6402	7134
Sugar	221	79	317	321	173	156	227	196
The total export of various goods above	2,972	3,737	6,493	10,609	12,728	13,340	14943	17255
Import:								
Living animal and meat	6	24	68	115	696	659	706	791
Dairy	5	31	81	60	218	219	274	350
Fish	13	44	102	609	1212	1319	1558	1994
Grain, oil and oilseed	2,472	1,065	2,535	6,760	4163	5343	5825	6252
Vegetables and fruits	104	92	113	259	677	866	838	872
Sugar	316	274	390	935	177	376	238	216
The total import of various goods above	2,916	1,530	3,289	8,736	7,143	8,782	9439	10475
Net export:								
Living animal and meat	739	728	1153	1707	932	1317	302	182
Dairy	66	26	-26	1	-30	-27	-80	-128
Fish	367	239	1,268	2,266	2493	2912	3132	3520
Grain, oil and oilseed	-1991	241	-1298	-5152	-1496	-3490	-3403	-2538
Vegetables and fruits	970	1168	2180	3663	3690	4065	5564	6262
Sugar	-95	-195	-73	-614	-4	-220	-11	-30
The total import of various goods above	56	2,207	3,204	1,873	5,585	4,558	5504	7266

Source of the data: statistics of China's National Bureau of Statistics (NBS) and the customs for every year.

Table 4. Income per capita of various groups in Chinese different areas in 2006 (%) *

Area	Group of income	Accumulate proportion of population	Income of capita	Production**		
				Section I: Section Competitiveness	Section II: with Section Competitiveness	without
Nation	Group 1	0-3.5%	491	42	58	
	Group 6	40-50%	1928	53	47	
	Group 11	90-100%	5889	64	36	
Western area	Group 1	0-3.5%	356	36	64	
	Group 6	40-50%	1302	56	44	
	Group 11	90-100%	3961	52	48	

Middle area	Group 1	0-3.5%	459	40	60
	Group 6	40-50%	1785	56	44
	Group 11	90-100%	4726	65	35
East area	Group 1	0-3.5%	598	47	53
	Group 6	40-50%	2425	50	50
	Group 11	90-100%	8040	74	26

* This table selects from Revenue and Expenditure Census in2006 by CSSB.

** Section I is the labor-intensive products (rice, the vegetables, pork, beef, mutton, the poultry, the egg and fish etc.); Section II is the land -intensive products (wheat, maize, feed grains, soybeans, cotton, edible oil, candy and dairy).

Table 5. The result of SURE

	SSURE Estimation			
	PI	PGDP	INE	TRADE
PGDP	-0.868*** 7.165		-0.891*** 3.794	0.594*** 4.478
PGDP ²	0.057*** 6.415		0.074*** 4.165	0.213*** 2.360
INE	0.132** 2.124	0.332*** 4.456		0.061*** 4.223
AGR	-0.246* 2.462	0.354** 3.451	-1.342*** 7.147	0.241*** 4.621
TVE	-0.203** 3.014	0.498*** 4.645	-0.064 0.895	0.418*** 3.246
INFLATION	0.008 0.746	-1.016*** 8.654	0.341*** 6.032	0.089*** 5.352
TRADE	0.269** 2.561	0.542** 4.210	0.142* 1.624	
TRADE ²	-0.087** 2.14	0.132* 2.292	-0.343*** 1.467	
Volume of sample	465	465	465	465
R ² after adjustment	0.74	0.92	0.86	0.79

Note: (a) The figure below the estimated coefficient of variables is the absolute value of the test value t ;

(b) *, **, ***respectively state that the estimated coefficients are significantly different from zero at the statistics levels of 10%, 5% and 1%.



A Cross-Cultural Discussion of Japan and South Korea and How Differences Are Manifested in the ESL/EFL Classroom

Scott Aubrey (Corresponding author)

Tel: 81-9098216286 E-mail: scottaubrey@hotmail.com

Abstract

Despite geographical closeness and historical intertwining, Japan and South Korea are culturally very different; in some cases, polar opposites. For instance, Japanese art and aesthetics favor simplicity and straight lines while Koreans prefer bold, colorful and cluttered designs. Other characteristics show us their different ways of thinking. Japanese suppress their emotions in social situations, and Koreans are known for quickly changing their mood from one extreme to another. An awareness of the similarities and differences of these cultures can help outsiders deal with interactions. For the purpose of this paper, I will look at four specific cultural differences relating to Korea and Japan: religion and Confucianism, detailed versus holistic thinking, patriotism through history, and homogeneity. After establishing these differences, I will then describe how they manifest themselves in an EFL/ESL classroom environment by drawing on my own teaching experiences in these countries.

Keywords: South Korea, Japan, Culture, EFL, ESL, Classroom, Patriotism, Homogeneity

1. Introduction

Both Koreans and Japanese take off their shoes before entering a house. Koreans like to sit on electronically warmed wood floors whereas Japanese like to sit on straw *tatami* mats. Although both include rice and seafood as staples in their diet, Koreans prefer the full flavors of pepper and kimchi, which contrasts with the blander flavor of Japanese tofu and sashimi. The Japanese drive in an orderly manner on the left side of the street; however, Koreans often hastily (but skillfully) blow past pedestrians on the right. The former values silence, while the latter often generates loudness; beyond the superficial, Korea and Japan differ wildly. It is important to recognize that no one Asian culture or race is superior to another, but from a non-Korean/non-Japanese EFL/ESL teacher's perspective, it is valuable to have a knowledge of these contrasts. The following four characteristics in this paper, I believe, are important for distinguishing Korean society from Japanese society and Korean students from the Japanese students.

2. Religion

Religions practised in Japan and Korea are very diverse. Korea's most popular religion is Christianity (47%), followed by Buddhism (40%), and then Shamanism (3%) (Cline, 2007). Churches with visible crosses are riddled throughout Korea; the steeple being a permanent fixture on the Korean city skylines. As a result of Christian influence, Koreans tend to have quite a stubborn sense of right and wrong. Japan, on the other hand, is more unified in its religious practices with Shintoism and Buddhism being its two major religions (Pye, 1982). Most Japanese consider both religions to complement each other, and thus are practised simultaneously. Like the crosses seen on the streets of Korea, the Shinto *torii* is the symbol that decorates Japan even more numerously. Unlike Christianity, the Shinto belief does not teach any moral rules, and Japanese tend to interpret moral dilemmas in a case-by-case fashion (Kelts, 2006).

On top of these religions sits Confucianism. Confucianism has influenced Japanese and Korean societies possibly more than its religions. Through five simple principles Confucianism provides a simple guide for order in society: justice and righteousness between sovereign and subject, a strong rapport between father and son, separation of function between husband and wife, respect for elders, and faith and trust between friends (Shinn, 1997). Confucianism has stopped being a religion itself and is now more of a set of rules, which form the basis for order in these two societies.

2.1 Confucianism Infused into Society

In Korea, Confucianism is practised more rigidly than any other society (Kalton, 1994). It is responsible for the respect a younger Korean must give an older Korean; the younger person must speak with strict formality to his elder; he must bow deeper, and pour his drinks with two hands instead of one; he must never doubt or question an older person's

decision and never give an order or talk down to him. Most Koreans have only friends who are the exact same age because it is almost impossible for an older person and younger person to talk freely to each other; however, once friendships are made they often last from very young until death. Women often come after men at work, they have limited opportunities in many career fields as their functions are thought of to be primarily domestic, and in many other ways are considered inferior to men (Kang, 2004). Arguably, this rigid order to society is unrivaled anywhere in Asia.

Japanese society is less affected by Confucianism, but it has affected Japan in different ways. In Japan, Confucianism is responsible for the respect that is found between people. "Thank you" and "I'm sorry" are used in excess in order to preserve the utmost peace between people in daily routines. Koreans, however, routinely spit, yell, or push without apology. In a paper comparing Japanese and Korean Politeness (Kim, Matsumura and Chinami, 2004), data collected showed that Japanese people of high social status use respect words when talking to people of low social status, and that Japanese politeness is often centered around benefit or debt expressions. Korean people found this "very difficult to understand." Japanese are often criticized for being "two faced," meaning that they often do not show their true feelings out of respect for others. They are guided by norms and, rules and regulations that hide the truth from the surface. As a result, outsiders may view Japanese as emotionless and complacent.

2.2 Manifestations in the Classroom

In the classroom, these beliefs can control the learning atmosphere. For Korean students, if the class consists of students of different ages, free discussion on teaching topics is hindered. The younger students are often silent as they either don't want to offend their elder classmates with their superior ability, or they don't want to appear their equal in commonly used role-plays. Because women often defer to men in Korean-Confucian society, women are also reluctant to participate in classroom activities. In Japan, age and sex are less of a factor but the same problems occur between higher and lower ranked employees within the same company. Because Japanese place a large emphasis on hiding any offensive feelings, personal opinions are rarely voiced in a classroom in fear that their thoughts may be considered offensive to other students or the teacher. In contrast, Korean students readily voice their concern if they have a problem or request. This observation is supported by Kristina Beckam-Bristo's study of cross-cultural classroom behaviors (2003). According to her survey, Korean students believe that offering personal viewpoints in class is highly acceptable (given a rating of 5 out of 5), while Japanese students believe this behavior to be highly unacceptable (given a rating of 1 out of 5). Confucian values in both countries stress education as the single best way to advance their status in life and view their teachers as a source of knowledge similar to a scholarly book. As a result, students are taught to listen and memorize information given by their teacher. Therefore, students often feel awkward when participating in discussions, role-play, or debates; again, this applies to Japanese students more than Korean students.

In Korea, where the bond between family members seem to be the strongest, mothers of school children often meet with teachers multiple times a month and request constant updates on their child's progress. A bad student is considered a loss of face for the entire family. From my experience, this happens far less in Japan.

3. Detailed versus Holistic thinking

Japan is known for its love of details. The gardens of most Japanese homes, although small, are tirelessly cared for; the streets of Tokyo are some of the cleanest and well kept in the world; Japanese-made products are usually of outstanding quality; the infamous Japanese bureaucracy makes doing even simple business activities overly complicated because paperwork must be checked and rechecked. The time and money that the Japanese invest in caring for seemingly unimportant details is truly unique.

On the other hand, Koreans take a more holistic approach in the way they approach tasks; they focus on the big picture. They often leave out unimportant details or cut corners as they always have their sights set on the end goal. The streets are not clean; city parks often have dirt where you would expect grass; fake designer apparel and products are sold; electronics are arguably lower in quality and cheaper in price than their Japanese equivalents. Modern Korean apartment buildings are usually built with cheap materials, in as little time as possible, and with almost no aesthetic appeal. Koreans value function, quantity, and speed. They don't like to waste effort on anything that doesn't contribute to their ultimate purpose.

3.1 Manifestations in the Classroom

For ESL/EFL students, this culture difference is very apparent. When Japanese students speak and write English, they are generally a lot more careful to use correct grammar and vocabulary. The most popular questions in a classroom revolve around the finer points of grammar. They often won't speak at all unless they are confident that they will speak a perfect sentence; they care very much about the details of English. On the other hand, Koreans are less concerned about the grammar of spoken English. Koreans are more content on just communicating their idea regardless of its grammatical sense. Missing articles, wrongly used prepositions, subject and verb disagreement are of little importance to a Korean as they do not subtract from the end point of transmitting their general idea. Repercussions of this are that Japanese get less practice at speaking because they are afraid to make mistakes. According to Berlitz (n.d), when

teaching in an EFL context, speaking practice is the “quickest and most effective way to learn a language.” In a study conducted at Nagasaki Jushin Catholic University (Suzuki, Jung, Watana, Min, and Yoshihara, 2004), it was found that university students in Korea were overall more competent in all areas of spoken English than Japanese university students.

Additionally, it can be considered that a strict adherence to time is detail-orientated behavior when following any form of schedule. Inside and outside of the classroom Japanese students strictly follow deadlines, start-times, and end-times. They religiously come and leave class on time with very few exceptions. Korean students, however, believe that so long as the appropriate amount of class work, homework, and study is done, then the amount of time spent in the classroom is not crucial. Evidence for this is given in a study of classroom behaviors (Kristina Beckham-Brito, 2003); the data collected showed that Japanese students found it extremely unacceptable to arrive 7 minutes late to class (given a rating of 1 out of 5), while Korean students found this behavior to be extremely acceptable (given a rating of 5 out of 5).

4. Patriotism through History

The history of Korea is usually considered one of the most tragic of all Asian countries. The Korean people have been fighting to defend their small peninsula from invasions by the Japanese and Chinese for centuries. This has created a sense of paranoia and skepticism towards foreigners and a strong sense of pride among themselves. The main factors in contributing to Korea’s pride and fear of the outside world were the Japanese occupation of Korea (1910-1945) and the Korean War (1950-1953). During the Annexation period in Korea, Koreans were forced to speak Japanese, take on Japanese names, and were essentially stripped of their culture (Ishida, 2004). As a result of this, Koreans strengthened their hold on their culture and grew excessively skeptical of foreign influence. They possess a strong hatred of Japanese even to this day. Without having time to rebuild their culture and forget about the Japanese, the Korean War ravaged the peninsula. Almost as if a bulldozer had run up and down Korea multiple times, the country was left in ruins and divided in two; a cease-fire agreement adding to frustrations. Powered by pride and xenophobia, Korea built itself up from nothing into the third largest economy in Asia (Delfeld, 2005). Because of history, Korea has always been a “defender”; it has always been in a situation where it had to fight for its life or come from behind. Through hardship, Koreans have become a proud people, and are well regarded for their “can do” attitude; however, through this nationalism has come very strong and stubborn feelings.

Japan, however, has always been an “aggressor”. Before World War II, Japan’s war strategy was primarily to preemptively attack, invade, and assimilate neighboring countries to preserve the status quo in its own kingdom. This was done successfully at the request of the Emperor, and until World War II, it was never made to deal with a major defeat. Unlike Korea’s stubborn nature, Japan is a country that adapts to change quite well. After World War II, Japan embraced its new pacifist constitution (Tamamoto, 2001). It then dug itself out of poverty and quickly became Asia’s first true capitalist nation. By the 1960s it had carefully secured trading relationships with China without disturbing its bond with the US (Morrison, 2006). It pioneered the “Asian Miracle” export-led strategy in which Korea’s economic policy was based on. As opposed to Korea, Japan seems to have easily forgotten its past and has become a strong US ally. Also in stark contrast to Korea, the attitude of Japanese is not patriotic. In Masaru Tamamoto’s journal article *A Land without Patriots* (2006), it is argued that in a pacifist “Japan there is no concept of war – all wars are bad. Consequently patriotism is not an operative idea.” Tamamoto explains “over the decades, the great majority of young men of draft age have said that they were unwilling to fight in defense of their country, that they would run away.” On a popular news website Japan Today, the question “Do you think Japanese are patriotic?” was asked to readers; the overwhelming majority did not think so (Kanda, 2006). Japanese university student Suguru Oose posted, “We live in Japan but we do not know much about our politics and culture...we do not care whether we are patriotic or not.” Another student Wataru Kinoshita answered, “I do not say I hate Japan, but I do not deeply think about my own country. People are shallow, easily give up on things and have no endurance. I want people to have stronger ideas and beliefs.” Modern Japanese could be characterized as passive and unpatriotic.

4.1 Manifestations in the Classroom

When teaching students of these countries, the differences in Korean and Japanese history is very apparent. A solution to motivating students to participate in group problem solving activities is to find a relevant topic that students have strong opinions about. Because Koreans have such strong feelings associated with their pride and nationalism, it is very easy to find a topic which may form the basis for debates or group discussion activities where students can logically work out their ideas in English. In Japan, there is a more passive and less emotional attachment to topics which affect Japan collectively, so Japanese are much more complacent in these activities. Therefore, patriotism is a great tool to provoke instant speaking activities for Koreans, but not for Japanese.

Furthermore, Koreans “can do” spirit is also alive in the classroom. Students fiercely compete with each other, and “slower” students are easily inspired to make great improvements and move ahead many “ranks” in the classroom. Japanese students again are relatively unmotivated to compete against each other.

5. Homogeneity

The last culture difference considered is the homogeneity of the cultures in Korea and Japan. Although both cultures are considered homogeneous from the western perspective, Korea is far more homogenous than Japan. According to a government press release in 2007 on the website Gateway to Korea, 1.5% of the Korean population are foreigners. By nationality, Chinese make up the largest portion with 52.4 percent, followed by Southeast Asians with 23.7 percent; Americans with 3.4 percent; Japanese with 3.3 percent; and Taiwanese with 2.9 percent. Eighty percent of the population has the surname Park, Kim, and Lee (Cullins, 2002). There are virtually no physical differences among Koreans by regions. There are technically five dialects of the Korean language in South Korea, but all of them are very closely related and understandable to one another (Baz, 2001). Up until 1989 it was very difficult for a Korean to receive a passport, and therefore Koreans could not easily travel outside of their border (Prideaux, 1997). Now Koreans can freely travel, but this very recent exposure to the outside world has meant that most Koreans have a very shallow understanding of other countries. Traditionally, Korea is not thought of as a tourist destination by vacationers, and as a result is not visited by many; there is little “international flavor” present in Korea. Mainstream pop culture also tends to be in only one form. The Korean fashion trends tend to be religiously followed by young Koreans. When walking the streets, it is immediately apparent what is in style because everyone conforms to the same fashion consciousness. Koreans tend to think as one. Among Koreans, there is little variety of what one eats, watches on TV, does on the weekend, or dresses oneself with.

Despite the stereotype that Japanese culture is very homogeneous, relative to Korea, it is quite the opposite. Similar to Korea, 1.6% of the Japanese population is foreign; however, a look at the break-down of nationalities with the foreign population shows a different story. Koreans make up 30% of the foreign population, followed by Chinese from China with 26%, Brazilians 15%, the Filipinos 9.3%, Peruvians 2.8%, and Americans 2.4% (Ministry of Internal Affairs, 2005). Non-Asian people make up far more of the population in Japan than in Korea, and the spread of nationalities within the foreign community is very diverse. Unlike Korea, Japan has an indigenous people called the Ainu who speak their own language and have different physical characteristics (Ferreira, 2007). Japan has dozens of dialects; some, like the dialect used in Kagoshima, are almost unintelligible to speakers of standard Japanese. Japanese are also avid travelers and love to mix other cultures with their own (Ferreira, 2007). The Japanese traveler was voted the best tourist in the world according to a 2007 survey conducted across hotels in Europe (Reuters, 2007). Pop culture in Japan is extremely diverse, and cities or even wards within cities differ immensely in this regard. In a paper called *Speech Patterns of Japanese Girls or Gals: Symbol of Identity and Opposition to Power*, Kazuko Tanabe (2005) describes how girls who frequent Shibuya, a small shopping district of Tokyo, have developed their own highly developed form of slang and speech pattern no understandable to outsiders. “Shibuya Girls” can also be readily identified by their blonde hair, overly tanned skin, European brand clothing, excessive make-up, and high heels. In contrast, one train station north of Shibuya, is Harajuku where fashion and youth culture are fusions of punk, gothic, and anime. One station south of Shibuya is Shimokitazawa, which boasts the bohemian-hippie Japanese; artists, musicians, long hair, and used clothing are popular themes here. In traditional culture there is also much diversity. The Japanese Buddhist festival of Obon is important as it commemorates the souls of passed ancestors. The dances and rituals performed vary depending on which region you live in – in effect, the traditions of the same religion “vary widely” about every 300 kilometers (Hammond, 2005). Japan is more heterogeneous and thus has more experience dealing and adapting with differences in its society.

5.1 Manifestations in the Classroom

In an EFL/ESL classroom, creativity and awareness of cultural differences is an important element in learning. Cultural problems in the English language exist. To be effective, teachers should encourage students to learn to speak English as it is spoken in an English speaking country. Cultural differences affect what students expect to hear, vocabulary, degree of formality, literal translations from their own language into English, and cultural misunderstandings. For Koreans, the informality of English is a problem they have difficulty overcoming. Because many students have not been to an English speaking country or have not interacted with an English speaking foreigner in a natural setting, they are surprised and uncomfortable with the informality of English in many situations. Japanese on the other hand, have traveled a lot more, and therefore this barrier is more easily overcome. Literal translations of some phrases and idioms are particularly difficult for Japanese and Korean students; only the most well traveled students can grasp the cultural significance of these easily. Japanese students are also better prepared for role plays and practical activities that mirror real life situations.

Diversity of personalities within a classroom is also an advantage when debating issues and discussing perspectives. The majority of Koreans tend to learn English for two reasons: a job related promotion or to study overseas. Japanese have a much broader spectrum of reasons for learning English; being transferred overseas, talking to foreign friends, traveling, watching American movies, or an international career are some reasons given by my students. Japanese have a more worldly perspective for learning English.

6. Conclusion

Koreans and Japanese, despite minor overlaps in culture, are quite distinct. Although both share Chinese lineage, history and isolation have left few similarities beyond the superficial. Confucianism has rendered Japan into a quiet, polite, and socially rule-bound society; on the other hand, Korea is not controlled by politeness but by a dominant-subordinate hierarchy based on age, sex, and social position. History has shown that Japanese can skillfully change and morph from successful aggressors into pioneering pacifists, while it has turned Koreans into stubborn patriots. Koreans rush to completion but Japanese tend to take time on the steps in between. Though both could be considered homogeneous cultures by western standards, Korea lives up to its name as the ultimate “Hermit Kingdom”. For EFL/ESL teachers, it is important to consider culture differences when planning lessons. The most commonly used techniques for teaching English will often go against cultural learning norms for both nationalities. English teaching methods need to be executed to carefully penetrate culture differences and ensure a clear acquisition of the language.

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Research on the Information Supporting System for the New Educational Mechanism Reforming in Rural Areas

Jianxiong Huang & Hongju Zhan

Research Center of China Rural Affairs, Huazhong Normal University

Wuhan 430079, Hubei, China

School of Economics and Politics & Law, Hubei University of Technology

Wuhan 430068, Hubei, China

E-mail: yuanfangcheng1978@yahoo.com.cn

Abstract

Based on the analysis of information requirements and the funds guaranteeing system reform of rural compulsory education, this paper tried to design and construct an information support system for the new network-based educational mechanism reforming in rural areas. This paper also defined the concept of this new system and its framework. A prospective forecast was also given in terms of its function and application. This paper intended to provide effective informationized managing measures for the implementation of the new educational mechanism.

Keywords: Information, New mechanism reforming, Innovation

On December 24, 2005, the State Council released the *Notice of Deepening the funds guaranteeing mechanism reform of rural compulsory education*. The implementation of the new mechanism is a significant milestone change in the history of compulsory education development in China. It solved the long disturbing problem of “insufficient investment and unclear responsibility” in rural compulsory education. It established a long term mechanism of guaranteeing rural compulsory education development and laid solid foundation for the healthy development of compulsory education. This paper tried a new research from the perspective of combination of modern information technology and the funds guaranteeing system reform of rural compulsory education to promote the functioning of the new mechanism.

1. Problems in the implementation of the new mechanism reforming and its demand analysis

1.1 Problems in the implementation of the new mechanism reforming

The problem of funds safeguard is the core problem in rural compulsory education and it influences the development of rural compulsory education. Therefore, constructing the new funds safeguard system for rural compulsory education is a project that has profound and far-ranging impact and significance. Since the 2006 reforming of the funds safeguard system for rural compulsory education, a number of measures have been taken to guarantee the implementation of the new mechanism and preliminary results have been achieved.

But according to the statistics of reporting calls on the new mechanism received by the ministry of education finance division, from January to June in 2008, there are altogether 110 reporting calls, of which 18 were in January, 34 in February, 17 in March, 12 in April, 11 in May, and 18 in June. All these reporting calls covers 23 provinces, 51 are from central China areas, 31 are from western China areas and 28 are from eastern China areas. Undoubtedly, since the spread of partial experiment of funds safeguard mechanism reforming of rural compulsory education to mid-western areas, there are bound to be different kinds of problems: problem of indefinite investment; contradiction in funds supply and demand; poor arrangement, poor management and poor monitoring of educational budget in different levels; unreasonable distribution of educational resources; the difficulty in solving the rural compulsory education debts.

First, the problem in budget planning. This problem is mainly revealed in three aspects: (1) in some schools, the number of students under the budget is inconsistent with the actual number, most often the budget number is much higher than the actual number; (2) in some schools, because of poor budgeting, there are cases that part of the budget funds were embezzled or diverted to other uses. There is a lack of unity of budget planning; (3) during the process of

budgeting, some projects are in serious lack of funds. For example, in Chongqing city, the funds for teachers training and allowance for repairs and maintenance are inadequate. After the implementation of the new mechanism, although there is a provision that 5% of the education funds should be used for teachers training, it is far from adequate. Therefore, teachers training and improving programs are difficult to operate. Allowance for repairs and maintenance is also seriously inadequate.

Second, the distempered management control system of educational funds. The process of government funding for compulsory education is only known to a few decision makers, which made effective monitoring difficult to operate. Without effective monitoring, corruption tends to occur. Under the present system, phenomena of embezzlement and corruption in the use of compulsory education funds occur now and then.

Third, difficulty in solving the debt problems in rural compulsory education. Rural compulsory debts are mainly from the loans and fund raising for the infrastructure of rural middle schools and primary schools. Furthermore, when the state government and provincial government allocate funds for the rebuilding of the dilapidated school building, they also require that the local government provide counterpart funding. But because of the financial difficulties in the local government, the counterpart funding is difficult to be collected. Therefore, debts come into being. These debts problems can not be solved under the present system. These debts not only hinder the smooth development of rural compulsory education, but may also become the inducement for financial risks and unauthorized collection of fees by educational institutions, which may ultimately affect the new compulsory education investment policy.

Fourth, the unreasonable distribution of educational resources. Because of geographical conditions and other factors, many backbone teachers flew from rural schools to urban schools. What's more, rural schools have more funding resources. Therefore, teachers in urban schools have much higher salaries than teachers in rural schools. This finally leads to the polarization between rural and urban schools, which made it difficult to realize balanced development of compulsory education.

The problems that appeared during the process of implementing the new mechanism are harmful to the healthy development of rural compulsory education. They are also the problems that need to be promptly solved in order to better construct the new mechanism.

1.2 The need for information communication in the new educational mechanism reforming

The modern age is an age of informationization. How the new mechanism adapts itself to the requirements of the informationized society is a big issue that we have to confront. Master of management Peter Deruke said, "This is the nature of knowledge: it changes fast. Today's certainty is tomorrow's absurdity." The complexity of the decision-making objects and the decision-making environment, together with the mass information brought by the rapid development of science, economy and society, demand that the construction of the new mechanism rely not only on a high-quality decision-making subject and a scientific process of decision-making, but also on the completeness and accuracy of decision-making information. It has been objectively proved that in an age of rapid scientific and technological development, it is difficult to make correct decision without the support of mass, prompt and reliable information. Only when the decision-makers obtain overall, accurate and useful information, can they make reasonable prediction of the development tendency of the new mechanism and thus make corresponding decision.

The impelling of the new mechanism reforming also requires the utilization of modern information technology. For example, the new financial management system of "separate accounts, centralized management" in rural middle and primary schools impels the reform of budgeting system in rural compulsory education schools and impels government procurement, and thus improve the funding returns. This financial management system can stop other units from charging the schools of unauthorized collecting of fees and can reduce the number of financial workers hence improve the funding returns. But if the service can not meet the needs of the new system, it may lead to low working efficiency, nonstandard use of educational funds, and lack of monitoring. Therefore, effective measures should be taken to apply computer and network technologies to the management of educational funds.

Because of the new mechanism's demand for information and the complexity and diversity of information, it is imperative that the management work of the new mechanism be informationized and web-based. It has become an urgent task to develop efficient web-based information support system for the new mechanism. It has significance practical and historical meaning to deepen the new mechanism reform and provide the new mechanism reform with information technology and informationized management measures.

2. The information supporting system for the new mechanism reform

In order to put into practice the guidelines of the Party's Sixteenth National Congress and the Third and the Fifth Plenary Session of its Sixteenth Central Committee, in order to carry out the viewpoint of scientific development, in order to strengthen the responsibility of guaranteeing rural compulsory education and make the nine-year compulsory education universal, in order to build new socialist countryside, the State Council decided to carry out and deepen the reform of funding mechanism for rural compulsory education. The new mechanism operates on the principle of

“clarifying funding responsibilities in different levels; central and local government jointly taking on the funding responsibilities; enlarging the rural education investment; raising the levels of guaranteeing education funds; carrying out the reform step by step”. The main content of the new mechanism includes: (1) free all rural students of compulsory education tuition and miscellaneous fees, offer students from poor families free textbooks and provide living allowance for boarders. (2) improve the level of funds guaranteeing for the public expenditure in rural compulsory education primary schools and middle schools. (3) establish a long-term mechanism for the maintenance and repair of the school buildings. (4) consolidate and improve the guaranteeing mechanism for teacher’s salaries.

In order to fully implement the new mechanism, modern management technology and measures are necessary. The core of the modern management technology and measures is the informationized construction of the new mechanism. Through a modern web-based and digitized system, the information supporting system for the new mechanism can help solve the problems which appear in the implementation of the new mechanism and improve the efficiency of the new mechanism.

The basic content of the information supporting system for the new mechanism mainly covers the following three aspects:

Firstly, the information supporting system adds new channels for the public to participate in the implementation of new mechanism. The information supporting system takes full advantage of the interaction modes based on information technology. It is a effective way to call on the whole society to participate in the implementation of the new mechanism. The information supporting system not only integrates the former public participating ways such as questionnaire, symposium, notice-board but also will integrate the new media such as broadcasting, cable television, telephone and internet. This will rid the new mechanism of the traditional public participation measures and make the participation measures transfer from qualitative, close, static and partial ones to quantitative, open, dynamic and whole ones, and thus promote the implementation of the new mechanism.

Secondly, the information supporting system can help enlarge the participating subject. The current policy of Transparency of Village Affairs participating subjects involves only related government departments and working staff. While the information supporting system can get the local government, educational institutions and financial departments involved in the implementation of the new mechanism. It also encourages the participation of the public, mass media, social groups and individuals.

Furthermore, the information supporting system can enrich the content of the public participation. Currently, in the process of the implementation of the new mechanism, besides the problem of insufficient content of public participation, there still exist the problems of unbalanced participating fields, involuntary participation and so on. The information supporting system can enrich the content of participation. Meanwhile, with the rapid increasing of participating channels, the information supporting system can facilitate the overall supervising of the new mechanism, guarantee the realization of government responsibilities, promote the effective management of school funds and build a new mechanism concerned, supported, participated and supervised by all the society.

Here it is necessary to define the information supporting system for the new mechanism. The so called “information supporting system for the new mechanism” is the introduction of modern information technology to the implementation of the new mechanism. It collects all the necessary information (including the government responsibilities, funds providing and demanding, educational resources distribution, educational burdens that peasants have, funds allocation, financial management, funds guaranteeing and so on) and then information digitalize them. It also uses computers, network, database technology and software’s to process and analyze all the information collected and then make decisions according to the analysis.

It must be pointed out that presently this system can only be a supplementary means for the implementation of the new mechanism. It can replace of work management personnel’s at certain levels but it can not fully replace the management and decision making activities of management personnel’s. Therefore, in this sense, we call this “the information supporting system” for the new mechanism.

3. The overall designing and technical support

When developing the information supporting system, we must consider the present situation and the future prospects of the new mechanism to construct and design an information supporting system with powerful functions and easy operation.

3.1 Principles of Designing

During the process of designing and developing the information supporting system for the new mechanism, we must always observe the following principles:

3.1.1 The principle of openness

An open system can share system resources with other systems and is easy to be upgraded. The ultimate goal of

constructing the information supporting system for the new mechanism is to break the isolation and strengthen the ties between the public and the government and related departments. We must take full advantage of the information supporting system to realize smooth information exchanging in the system and information exchanging with other systems. We must consider the compatibility of the present system and its future development, therefore, the system must be open.

3.1.2 The principle of practicability and economy

The information supporting system for the new mechanism must be practical and economic. When designing the new system, we must make it simple, convenient and efficiency. We should try our best to retrench the expenditure.

3.1.3 The principle of confidentiality

The user information and the government confidential files in the information supporting system for the new mechanism need to be kept confidential. Therefore, the confidentiality of the information supporting system is very important.

3.1.4 The principle of perfecting the system while using it

Because of the broad range of the information supporting system, it is impossible to be perfectly developed in a short time and it is not necessary to put it into use when it is perfected. We should follow the principle of perfecting the system while using it. In this way, user can be quickly familiar with the system and feedback can also be obtained to perfect the system.

3.2 Structure of the system

According to the above analysis, an overall structure of the information supporting system has been designed. In short, the whole system consists of “3 subsystems and 5 levels”.

3.2.1 Three subsystems

From the point of view of system science, the funds guaranteeing mechanism for rural compulsory education mainly consists of three key factors. They are funds, subjects and necessary controlling system. All other factors are derived from these three key factors. The information supporting system for the new mechanism is a complicated system. It is based on web technology, 3s technology, database technology, multimedia technology and other modern information technology. According to the three key factors, we divide the whole information supporting system into three subsystems. They are the subsystem of funds allotment, the subsystem of funds management and the subsystem of funds supervising. The subsystem of funds allotment covers the sources of funds. It is the primary factor of the new mechanism. The subsystem of funds management manages the activities of funds investors and users. The subsystem of funds supervising directly influences the effect of the functioning of the system.

According to the above analysis, the three subsystems are further divided in this paper. The subsystem of funds allotment is further divided into 5 secondary subsystems: budgeting, public expenditure in rural primary and middle schools, funds for construction and maintenance in rural primary and middle schools, salary guarantee for teachers in rural primary and middle schools, subsidy for students from poor families. The subsystem of funds management is further divided into 6 secondary subsystems according to the different subjects involved: central government, provincial government, municipal government, county government, schools and students. The subsystem of funds supervising is further divided into 2 secondary subsystems: supervising & inspecting and researching. Supervising and inspecting means educational institutions should coordinate the activities of government departments such as financial department, audit department, supervision department, local People’s Congress and public opinion department to establish an effective mechanism of work evaluation and supervision. The secondary subsystem of researching means that the process of the implementation of the new mechanism should be studied and researched so that proper suggestions could be made to further perfect the new mechanism.

The 3 subsystems and the secondary subsystems are interrelated and interact on each other. Together they build the information supporting system for the new mechanism. The structure of the information supporting system can be illustrated by Figure 1.

3.2.2 Five Levels

The system will be built into an open web system, consisting of 5 levels: national system, provincial system, municipal system, county system and school system. The national system refers to the new mechanism reform leading group. The provincial system, the municipal system, the county system and the school system refer to the new mechanism reform leading group formed by the government department in different government levels.

The same software and hardware equipments will be equipped in the different levels of systems. The information will be run on LAN and Internet step by step. The structure of the system network can be manifested in Figure 2.

4. Function of the Information Supporting System and its Application

The information supporting system for the new mechanism has the following practical meanings and functions:

Firstly, it can strengthen the information integration and yield the greatest returns on investment.

Information integration is the necessary result of the development of data integration. It is the result of information need. The information supporting system uses networked management to achieve the goal of co-construction and sharing information resources. It integrates the information resources and breaks the former isolation of information management. The information system can solve the present problems and shortcomings in the implementation of the new mechanism, and it is beneficial to yield the greatest returns on educational investment.

Secondly, it impels the informationized working mechanism.

The information supporting system is the important body of impelling the informationized working mechanism. It frees people of the low efficiency manual operation of information collecting, processing, storing and exploiting. It boosts the development of computerization, informationization and networking of the new mechanism.

Thirdly, it establishes an informationized assessment mechanism.

The assessment mechanism in the information supporting system is a man-machine integrated assessment system. It is significant in improving the assessment standards, perfecting the assessment measures and assessment mechanism.

Fourthly, it promotes the comprehensive reform of rural compulsory education.

The promotion of the new mechanism reform needs to extend the range of the reform, and the information supporting system provides it with the reforming platform. First of all, it impels the related subjects to change their traditional ideas, and this change is important for the new mechanism reform. Furthermore, the construction of the information supporting system demands the introduction of scientific managing ideas, and it is an overall and profound reform of the traditional working style, organization structure and management process.

It must be pointed out that the construction of the information supporting system can not be done overnight. It must be carried out step by step. The information supporting system has broad range, mass information, multi-functions and complicated system. Only by advanced information technology and only with strategic and long-term views, can it be realized. What's more, the information technology that the information supporting system is based on is also continuously developing and evolving, therefore the system needs to be continuously perfected and developed. There are some points that worth paying attention to when applying it into practice.

First of all, the information supporting system requires certain hardware investment. Secondly, it requires high quality data. The data in the information supporting system are provided by provincial and local management departments. This requires that the data provided be authoritative, reliable, perfect and efficient. Thirdly, it requires a high quality team of management and maintenance. Fourthly, it is better to choose two counties to experiment the information supporting system and then make it widespread.

Briefly, the implementation of the new mechanism reform calls for the information supporting system. The information supporting is open, flexible, practical and interactive. It will be a necessary technological basis of the funds guaranteeing mechanism for rural compulsory education.

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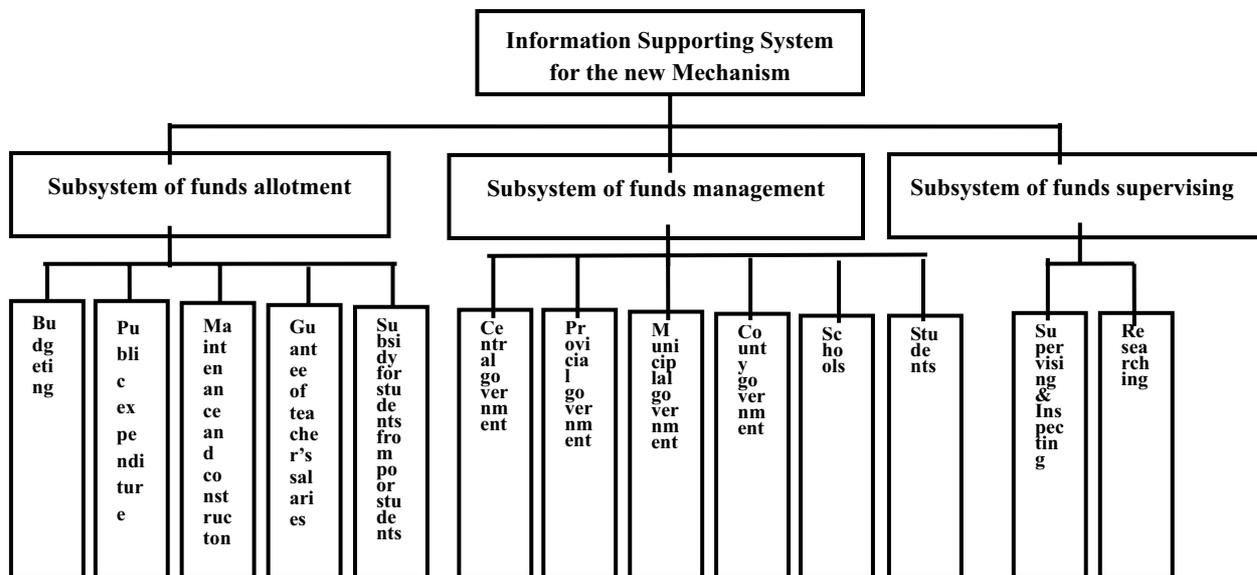


Figure 1. Structure of the Information supporting System

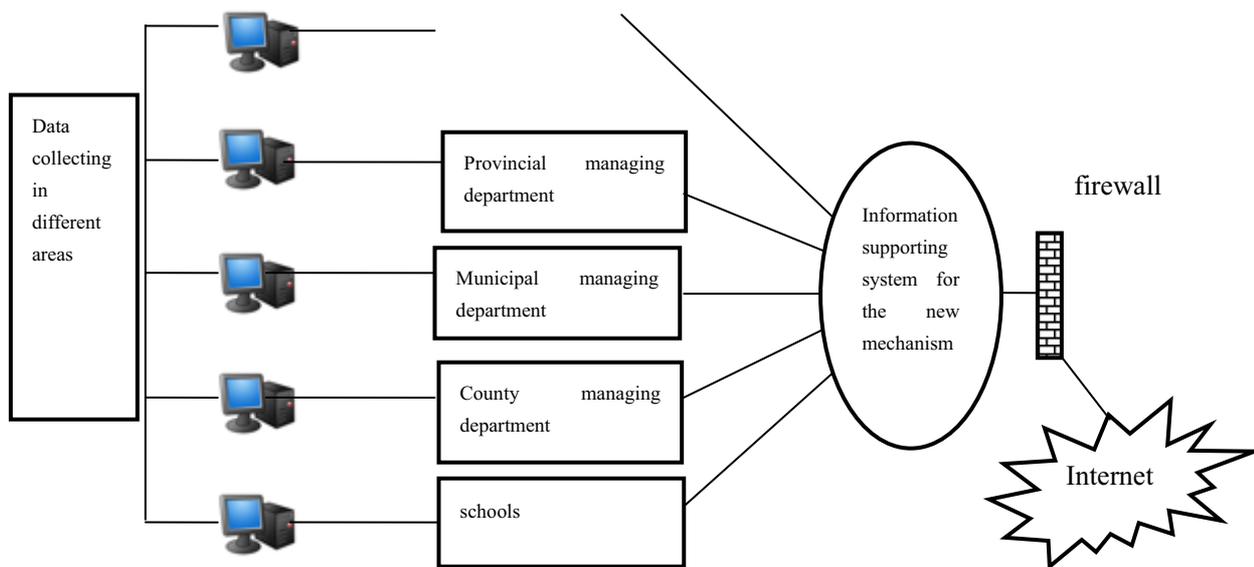


Figure 2. Five Levels of the Information Supporting System



Education for Sustainable Development in Teacher Education: Issues in the Case of York University in Canada

Jinyu Liu

English Department, Foreign Language College, Inner Mongolia University

No.235, Daxue West Street, Hohhot 010021, Inner Mongolia, China

E-mail: liujinyu2008@gmail.com

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Abstract

Educating for a more sustainable future in its broadest sense includes improving quality basic education, reorienting education to address sustainability, improving public awareness, and providing training to many sectors of society. This article mainly considers one aspect of education---teacher education (TE) --- especially the role of institutions of teacher education in reorienting teacher education to address sustainability. The key role of teacher education for the initiative is recognized in the implementation strategy, and a notable education programme to support ESD, but the challenges for teacher education in responding to calls for prioritising and implementing ESD are considerable. The present paper draws upon recent research to examine these issues in the case of York University, with a particular focus on national, provincial and community involvement in a policy context, change within institutions of higher education, funding and resources, research and partnerships and information technology opportunities advocating various approaches to TE.

Keywords: ESD, Teacher education, York University

1. Introduction

The idea of Education for Sustainable Development (ESD) is becoming increasingly important at all levels of the educational system including higher education. The UN International Environmental Education Programme (1975–1995) first introduced the notion of sustainability in higher education, and the UN is now encouraging all countries to address ESD by making 2005 to 2014 the Decade for ESD, with an accompanying declaration that ‘there has been a common consensus that education is a driving force for the change needed’ and named the UNESCO as the lead agency to promote the Decade. Member States are invited to implement the Decade in their national educational plan. Agenda 21 states that efforts on multiple fronts are needed to create a more sustainable world. Education, as described in Chapter 36 “Promoting Education, Public Awareness and Training,” is one of the fronts with high potential for advancing sustainable development efforts; however, education alone will not move citizens and governments to create a more sustainable future. Many people and organizations must share the responsibility for more sustainable societies through good government, enlightened policy, civic participation, and commitment. The key role of teacher training for this initiative is recognised in the implementation strategy, and a notable event in the period leading up to the Decade has been the publication of a teacher education programme to support education for sustainable development (ESD). Agenda 21 describes the role of education in fostering more sustainable societies.

“Special attention should also be paid to the training of teachers, youth leaders and other educators. Education should also be seen as a means of empowering youth and vulnerable and marginalized groups, including those in rural areas, through intergenerational partnerships and peer education. Even in countries with strong education systems, there is a need to reorient education, awareness and training so as to promote widespread public understanding, critical analysis and support for sustainable development.” (p 74)

A strong advocate for ESD in the curriculum, Moore (2005b, p. 326) asserts that: ‘given what academics know about the current ecological condition of the planet, there is an obligation for universities to become leaders in the movement to prevent global ecological collapse’.

To begin the process of reorienting teacher education to address sustainability, faculties of education around the world must draw their own thematic guidelines based on descriptions and ideals of sustainability. Although many idealistic and wholesome descriptions of the conceptual underpinning of sustainability and sustainability education exist, faculties of education must decide which themes to emphasize within their curriculums, programs, practices, and policies to ensure that teacher-education programs fit the environmental, social, and economic conditions and goals of their communities, regions, and nations. As we shall see below, the challenges for schools and teacher education in responding to calls for prioritising and implementing ESD are considerable. For this reason, it is important to undertake research that considers the extent college teachers feel teacher education for sustainable development is a worthwhile and appropriate addition to the higher education curriculum. Some previous studies have identified teachers' beliefs and attitudes as barriers to the implementation of sustainability initiatives in higher education (Lozano, 2006). Specific examples of barriers include: the discipline-focused nature of many academics' work (Moore, 2005a), the perceived irrelevance of ESD to some disciplines, and lack of time in the curriculum (Dawe et al., 2005). However, although these barriers have direct relevance for ESD, the majority are fairly generic to change initiatives within higher education and few studies have investigated in detail college teachers' specific beliefs about and attitudes towards teacher education in sustainability in higher education. A notable exception is Reid and Petocz (2006), who examined academics' understandings of sustainability across a variety of disciplines. They concluded that efforts to engage academics in ESD were hampered by the lack of a shared understanding and language for discussing sustainability issues, and a lack of enthusiasm for incorporating them into the curriculum in some cases: 'sustainability is often seen as a bit of a nuisance, and possibly as a sop towards political correctness that interrupts the real work' (p. 120). Our research sought to investigate this issue in the context of an institution which is attempting to incorporate teacher education into social, economic and environmental sustainable development.

2. The current study

The research presented here was undertaken at York University, Canada, a university of some 40,000 students and 1125 faculty members and 800 affiliated teachers, distributed across two campuses. York is consistently ranked as one of the top three in Canada and has a particularly strong reputation for teaching and learning, having gained funding of more than \$23 million each year for teaching and research, more than \$6 million for scholarship. During the 1990s, UNESCO identifies teacher-education institutions and teacher educators as key change agents in reorienting education to address sustainability. Subsequently, in 1998 the United Nations (UN) Commission on Sustainable Development (CSD) work program on Education for Sustainable Development called for UNESCO to develop guidelines for reorienting teacher education to address sustainability. In order to accomplish this task, UNESCO and York University, agreed to establish a UNITWIN/UNESCO Chair in 1999 to provide advice to UNESCO and institutions of teacher education. The task of developing guidelines for the reorientation of teacher education was passed to the UNITWIN/UNESCO Chair at York. As a result, one of the long-term goals of the UNITWIN/UNESCO Chair is to develop guidelines and recommendations for reorienting teacher education and associated realms of pedagogy, curriculum, and other related issues. To accomplish this, the Chair established an international network of more than 30 teacher-education institutions in as many countries. Educators at these institutions work collaboratively to identify various ways of achieving this goal.

3. Methodology and Research Questions

The methodology used is based on case study. This is the best option for democratizing the project and giving the detailed value to the University. Apart from simple counting, the principle task was to analyze qualitative, written and oral responses on the questions submitted to some teachers.

The concerns for national, provincial and community involvement in a policy context, change within institutions of higher education, funding and resources, the quality of university teachers' performance, research and partnerships and information technology opportunities advocating various approaches to TE have been central in our previous work, although we have not previously interpreted them in terms of TE. The research questions which form the basis for the present paper illustrate these foci and are as follows:

- (1) To what extent does ministerial and national level involvement, community and regional/provincial involvement enhance approaches to ESD and hence provide a fruitful context for TE?
- (2) How to change the current situations in Higher institutions?
- (3) How are the problems of funding and resources designated ?
- (4) How to work on the cooperative research work among institutions?
- (5) What does the role of York University play in forming partnership in this area?

To create this work I have made surveys at York University. The institutions and teacher educators there, who have gained significant experience over a range of reorientation undertakings, summarized their attempts to reorient their own teacher-education programs and made recommendations based on their own experiences for reorienting teacher

education to address sustainability. A limitation of the work reported is its focus on only one Canadian university. However, this university is central to TE development in ESD in Canada, and, as we shall see later, a restricted concern for the most relevant subjects may well represent the most fruitful way forward for TE development.

4. Findings

Some of the more prevalent challenges for reorienting teacher education to address sustainability fell into the following categories. Official national and provincial curriculum rarely mandate sustainability. Teacher certification guidelines do not mention sustainability. There are lack of or inadequately trained professionals who are knowledgeable about ESD, lack of or inadequate funding and material resources, lack of or inadequate national, provincial, and local policy to support ESD. Inadequate institutional climate supports the creativity, innovation, and risk-taking necessary to support transformative efforts to reorient education to address sustainability. Rewards for institutions or faculty members who undertake ESD programs are quite inadequate. Prioritizing Sustainability in the Educational Community. ESD is not part of ongoing educational reform. Prevalence of traditional disciplinary curriculum frameworks makes incorporating sustainability, which is transdisciplinary, arduous. ESD programs are often developed without local community participation or involvement of other stakeholders leaving the program without local context or relevance. Coordination of efforts between ministries of environment, education, health, agriculture, etc. is inadequate.

5. Discussion

In this final section I would like to examine some of the implications of the above findings. The main problems faced when teachers are to implement any work on education and learning of sustainability in the institutions were lack of awareness and understanding of the concept of sustainable development among our faculty members. There are too many disparate initiatives, too little time for thinking about new ideas, and too little encouragement to think “outside the box” or make links between initiatives, particularly where cultural norms or existing mission statements don’t mention sustainability.

5.1 Ministerial, national, community and regional/provincial involvement

Ministries of education have to make ESD a mandatory part of elementary and secondary education at national and provincial levels. Work with ministries of education to revise teacher education and certification requirements to include ESD and to align these revisions to correspond to the ESD components of elementary and secondary education. The ministries of education should create policy to support ESD and professional development programs related to ESD for teacher educators. Engage teacher unions and national certification boards in the conceptual development and implementation of ESD; develop a strong national coordination team for ESD that includes professional organizations and issue-related educational organizations (e.g., consumer education, environmental education, and equity education) to integrate their work with institutional ESD initiatives through cooperation, collaboration, and sharing of ideas.

5.2 Recommendations on change within institutions of higher education

This section on change within an institution of higher education (IHE) has four subsections of recommendations. All four deal with change within an IHE at a particular level: entire institution, faculty (i.e., departmental), engaging students, and individual faculty member.

Reorienting teacher education to address sustainability will affect faculties and administrative units beyond the faculty of education. As we know from studies in ecology and sociology, a change in one part of a system will result in changes in other parts of the system. This general principle is also apparent on higher education campuses. Support from the highest institutional levels enhances the success of reorienting teacher education to address sustainability. For example, upper administration can facilitate success by structuring faculty reward systems for promotion and tenure to include teaching, research, and service related to ESD. Upper administration can also strive to manage the campus using sustainable practices, thereby reflecting the value the institution places on sustainable development. Modeling and promoting sustainability in practices and policies related to social equity and environmental stewardship will reinforce sustainability themes taught in academic and professional education programs.

5.3 Recommendations on funding and other resources

Unfortunately, in the majority of countries, few resources have been devoted to ESD. As a result, progress has come out of volunteer efforts of dedicated individuals and the in-kind resources of institutions. On this pilot project level, it was important to show that reorienting teacher education to address sustainability was not expensive and could be accomplished by cost effective means. Now that the pilot project is completed, however, it is time for governments and institutions to dedicate funds to reorient education to address sustainability. Dedicated funds, personnel, and resources ensure that these pilot programs will be institutionalized and replicated and other projects begun on much broader scales. It is folly to think that funding and staffing allocation are not essential to creating and maintaining any education program.

5.4 Recommendations on research

For ESD to be a long-term success, advocates of ESD must develop a research agenda to support the effort. This agenda would include an accountability and assessment system to measure the impact on student learning. Proponents of ESD must have data to prove their claims of effectiveness of ESD. Asserting that ESD is important or effective will not be sufficient to sway audiences in ministries and academic institutions. Interdisciplinary research and collaboration is necessary both to build those arguments and to inform new ESD policy and programs. As with any emerging field of research it is important that academic institutions accept ESD research as a legitimate avenue of inquiry and reward members of faculty who work in this field. Researchers need to be assured that their innovative and interdisciplinary work in ESD is valued in the faculty reward system (e.g., for purposes of tenure review and promotion).

5.5 Recommendations on partnerships and information technology opportunities

The work of reorienting teacher education to address ESD is so immense that fostering broad cooperation and engaging outside assistance is essential to long-term and widespread success. One Network member wrote, "This [era of cooperation] is different from years of competition between institutions and the constant replication of resources, courses, and programs all trying to prove [which institution is] the best. Now we are working as a national team to make sure we are all the best we can be." Partnering, however, can prove difficult in faculties; therefore, guidelines for acceptable partnerships, if not already in place, must be developed. Partnerships between teacher-education institutions and elementary and secondary schools, and such educational organizations as museums, outdoor education sites, and nature centers should be strengthened, as well as local, regional, and international networks by sharing ideas, experiences, and materials and maintaining the vision of a sustainable world. Both the government and institutions should develop guidelines for using information technology related to ESD and for incorporating ESD into online and distance learning courses. Professional development opportunities should be provided for teacher educators to use information and communication technologies (ICT) to provide professional development about ESD to in-service teachers who work in locations distant from campus.

6. Final point

While many nations around the world have embraced the need for education to build capacity to achieve sustainability, only limited progress has been made on any level. This lack of progress stems from many sources. In some cases, a lack of vision or awareness of the role education could play in achieving sustainability has impeded progress. In others, it is a lack of policy or resources such as funding. The UNITWIN/UNESCO Chair and members of the International Network have identified a number of issues that limit progress in ESD.

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Bullying: Risk Factors Becoming ‘Bullies’

Kasetchai Laeheem

Faculty of Social Sciences and Liberal Arts, Yala Islamic University, Pattani Campus

Yarang, Pattani, 94160, Thailand

E-mail: Lkasetchai@yahoo.com

Metta Kuning (Corresponding author)

Faculty of Science and Technology, Prince of Songkla University

Muang, Pattani, 94000, Thailand

E-mail: kmetta@bunga.pn.psu.ac.th

Nittaya McNeil

Faculty of Science and Technology, Prince of Songkla University

Muang, Pattani, 94000, Thailand

E-mail: nittaya@bunga.pn.psu.ac.th

Abstract

The primary purpose of this study was to analyze the internal consistency and construct validity of a classification of bullying outcomes, and to investigate the risk factors associated with bullying behaviour at Pattani primary schools, southern Thailand. A cross-sectional study was conducted with a sample of 1,440 students. Factor analysis, descriptive statistics, Pearson's chi-squared test, and logistic regression were used for data analysis. The results showed that 20.9% of students in Pattani primary schools reported having bullied others. A four factors structure of bullying was clearly shown; serious, general physical, psychological-maligning parent and psychological-maligning student. Witnessing parental physical abuse was clearly the most strongly associated determinants, and much more strongly linked to bullying others than was the group who had never witnessed parental physical abuse (OR 7.60, 95% CI 5.60-10.31). The students who preferred action cartoons were more often bullies than were those who preferred comedy cartoons (OR 2.87, 95% CI 1.91-4.30).

Keywords: Bullying, Factor analysis, Cartoon, Parental physical abuse

1. Introduction

Many students in the primary school have been commonly classified as ‘bullies’; who over time repeatedly perform negative actions towards one or more students with the aim to hurt, in a variety of ways, including physical assaults (kicking, hitting, biting, pushing, beating, and pinching), and psychological or emotional or verbal harassment (name calling, teasing, insulting, threatening, and taunting) (Gini, 2004).

The major risk factors of bullying are multiple and are associated with the individual, but also linked to the socio-family environment; parental physical abuse has been found in some studies to be clearly the most strongly associated risk factor linked to bullying others (Singer et al, 1998; Baldry, 2003). The children living with domestic violence were found to be at increased risk of experiencing emotional or physical abuse. This is consistent with some other studies (Pepler & Sedighdeilami, 1998; Rossman, Hughes & Rosenburg, 2000). Parental modeling of aggression and frequent parental conflict can result in their children performing bullying behaviour (Bandura, 1975; Jaffe, Wolfe & Wilson, 1990).

Some studies have provided evidence of a strong association between exposures to domestic violence and bullying behaviour; the students who had witnessed parental physical abuse were more likely to bully others than were those

who had not witnessed parental physical abuse (National Research Council, 1993; Dauvergne & Johnson, 2001). The children witnessing family physical abuse copy the parent's physical actions that are coercive. With this modeling, the child might then become a bully to gain success in his or her own social interactions (Edleson, 1999; Herrera & McCloskey, 2001).

Several studies tried to develop an instrument that can measure bullying outcome by means of factor analysis. Some studies used a 7-point Likert-type response format ranging from 1 (never) to 7 (always), which found three factors (Melamed et al, 2001). Some studies used a 5-point Likert-type response format ranging from 1 (never) to 5 (daily), which found two factors (Einarsen & Hoel, 2001). Another study used a 4-point Likert-type response format ranging from 1 (never) to 4 (frequently), which found four factors (Rospenda & Richman, 2004). To minimize the recall bias, this study used a binary type response format; 0 (never) and 1 (ever) that was adapted from Besag (1992).

The purpose of this study was to use a binary factor analysis (Woods, 2002; Keprt & Snasel, 2004) to analyze the internal consistency and construct validity of a classification of bullying outcome, and to find an appropriate statistical model that includes the risk factors associated with the outcome variable 'bullying others'. These risk factors were based on demographics (age, gender, religion), schools (school's rural/urban location, school's private/public type), family (parental physical abuse), entertainment (preference for cartoon types), and friends (number of close friends). If the model can identify students who are at high risk of particular bullying, such a model would be useful for further planning to introduce better strategies for preventing the problem.

2. Method

2.1 Participant

Calculation of required sample size was based on the main outcome of bullying, for exposure to parental violence and non exposure to parental violence. The prevalence of bullying of Italian primary school students in a 'not exposed to parental violence' group was found to be 45.7% (Baldry, 2003). This study's estimate was obtained by substituting $\alpha=0.05$ (type I error), $1-\beta=0.2$ (power), $OR=1.344$ so $Z_{\alpha/2}$ and Z_{β} are 1.96 and 0.84 respectively, $r=1$ (ratio of non bully to bully subjects), $p_2=0.46$ (prevalence of bullying in non exposure to parental violence group), $p=0.50$ $p_1=0.53$, into a formula for sample size given by the following (McNeil, 1996), namely

$$n_1 = \frac{\left(Z_{\alpha/2} \sqrt{\left(1 + \frac{1}{r}\right) \frac{1}{p(1-p)}} + Z_{\beta} \sqrt{\frac{1}{p_1(1-p_1)} + \frac{1}{rp_2(1-p_2)}} \right)^2}{(\ln OR)^2}$$

Where $p_1 = \frac{p_2}{p_2 + (1-p_2)/OR}$, and $p = \frac{p_1 + rp_2}{1+r}$

This gives $n_1=n_2=719$. It was concluded that a minimum sample size of 1,438 was required for this study.

The study was conducted with 1,440 students attending school between November 1, 2005 and March 31, 2006. The study included 14 primary schools, three public schools of Basic Education Office (B.E.O.), two public schools of municipalities (Thesabans), one Islamic private school and one Chinese private school, in each of the districts Saiburi and Pattani City, within Pattani province, southern Thailand.

The participants were selected by using a multi-stage sampling method. The first stage, Pattani City and Saiburi were selected by using purposive sampling with the criterion being a cluster of four types of school (public school of Basic Education Office (B.E.O.), public school of municipalities (Thesabans), Islamic private school, and Chinese private school). Pattani City was represented the urban location and Saiburi district as the rural one, because these were the only two districts that met the school-type cluster criterion. In the second stage, public schools were selected by simple random sampling and private schools were selected by purposive sampling (there was only one of each such school in each district). Finally, participants in each school grade (grade 1 to grade 6) were selected by using a systematic sampling technique which was done proportionate to population size.

2.2 Data collection

A cross-sectional study design was employed. The collection assistants were teachers in target schools, who were studying for a Graduate Diploma in Teaching at Yala Islamic University. These teachers were trained in the details of the questionnaire (see Table 1) and the interviewing techniques. They were asked to take care not to rush through the questionnaire and also to record accurately and authentically.

The teachers interviewed students in the classroom after permission was granted by the school principal. Each individual interview, face-to-face, with a grade 1 to 3 students were for approximately 20 to 30 minutes. Group administered surveys of grades 4 to 6 students took approximately 40 to 60 minutes, with individual students writing

their own responses after the interviewer read the instructions.

2.3 Data Analysis

In this study, factor analysis was first conducted to classify the outcome (bullying behaviour). Descriptive analysis was conducted for measuring the prevalence of bullying. Pearson's chi-squared test was used to assess the associations between the outcome and the various categorical determinants. Logistic regression was used to estimate the relative odds of having bullied others and the predictor variables, and backward method was used to eliminate variables from the model.

3. Results

3.1 Outcome

Given the exploratory nature of this study, we conducted an exploratory factor analysis of types of bullying to identify possible factors for future analyses. A maximum likelihood analysis with varimax rotation was performed on the same responses (1,440 students). The factor structure was determined utilizing two criteria (Prasith-rathsint, 2006): (a) eigenvalues greater than one, and (b) item loadings equal to or greater than 0.30. A score test or sedimentation test was visualized to determine the number of factors.

A four factors structure was clearly shown: a serious physical bullying factor comprising 'kicked', 'hit', and 'bit' (eigenvalue 1.85; 15.4% of variance explained), a general physical bullying factor comprising 'pushed', 'threw something at', 'beat', 'pinched' and 'scolded' (eigenvalue 1.77; 14.7% of variance explained), a psychological bullying by maligning a parent factor comprising 'insulting parent's occupation', and 'insulting parent's name' (eigenvalue 1.21; 10.1% of variance explained), and a psychological bullying by maligning the student factor comprising 'insulting appearance' and 'insulting economic status' (eigenvalue 1.01; 8.4% of variance explained), (see Table 2). Then, the new scores for four types of bullying were calculated by using discrete scores to compare with the criteria that were adapted from a Likert rating scale; loadings 0.00-0.25 scored as 0, 0.26-0.50 scored as 1, 0.51-0.75 scored as 2, and 0.76-1.00 scored as 3.

The resulting scores were as follows: serious physical bullying (scores 0-7): (3*hit) + (3*kicked) + bit; general physical bullying (scores 0-9): (3*pinched) + (2*beat) + (2*throw something at) + pushed + scolding; psychological bullying by maligning a parent (scores 0-4): (3*insulting parent's occupations) + insulting parent's names; and psychological bullying by maligning the student (scores 0-4): (3*insulting economic status) + insulting appearance.

Finally, by combining new scores of four types of bullying and transforming these into Z-scores (standardized to a mean of 0 and a standard deviation of 1), students were classified into two categories for bullying; 'bullied' or 'not bullied'. The students who have a standardized score greater than 1 were classified as a bully (Scholte et al, 2007; Gini, 2008).

3.2 Descriptive statistics of bullying and risk factors

In this study, bullying outcome was classified as a dichotomous variable; 'not bullied others' (1,139 students) and 'bullied others' (301 students). The percentage of students reporting that they had bullied others in school was 20.9%. There were eight determinants; school location, school type, gender, religion, age, parental physical abuse, preference of cartoon type, and number of close friends. Student participants were same proportions across urban and rural school locations. The majority of the students were from public schools (72.2%). There were similar proportions across two genders, two religions and three age groups. The majority of the students had not witnessed physical abuse between parents (79.7%). Approximately half of the students preferred mystery cartoons (48.2%), and had 3-5 close friends (41.4%) (see Table 3).

3.3 Associations between bullying others and determinants

School type, gender, religion, age, parental physical abuse and preference of cartoon types were associated with bullying others. So the proportion of students who had been bullied others were height among public school students, boys, non-Muslim, aged 11 years old or more, had witnessed parental physical abuse, and preferred action cartoons (see Table 3).

3.4 Logistic Regression Analysis of bullying others

There were statistically significant associations between bullying others and gender, religion, age, parental physical abuse and the preference of cartoon type. The residual deviance of 1202.6 on 1432 degrees of freedom ($p=0.000$).

Boys were bullied others more than girls (OR 1.82, 95% CI 1.27-2.28). Non-Muslim students were 1.69 times (95% CI 1.26-2.25) more likely to bully others than Muslim students. Bullied others were more likely to be increase with the students' aged. Moreover, students who had suffered from parental physical abuse were 7.60 times (95% CI 5.60-10.31) more likely to bully others than those who never witnessed parental physical abuse. The students who preferred action cartoons more frequently reported that they had bullied others than did those who preferred comedy cartoons (OR 2.87, 95% CI 1.91-4.30) (see Table 4).

Figure 1 shows the prevalence of bullying others, by risk factors, after fitting a logistic regression model. The highest prevalence of bullying others was among the students who had suffered from parental physical abuse. Students who preferred action cartoons had high prevalence of bullying others.

4. Discussion and conclusion

The study show that witnessing parental physical abuse, gender, age, religion, and school type were the risk factors for bullying. Furthermore, witnessing parental physical abuse and preference the action cartoons were the majority risk factors for bullying. One possible explanation for this association might be that children witnessing physical abuse between parents might copy the parent's physical actions that are coercive, aimed at making the other parent do something in particular. The children might then become a bully to gain success in his or her own social interactions. This explanation is in line with findings by Pepler and Sedigheilami (1998) who reported that children living with domestic violence are at risk of increased emotional and behavioural problems. Children living with domestic violence were found to be at increased risk of experiencing emotional or physical abuse (Daro & Cohn Donnelly, 2000; Kuning, 2004). Frequent parental conflict can result in their children performing bullying behaviour (Espelage & Swearer, 2003).

In addition, student preference for action cartoons leads to more cartoon violence and so indirectly has a negative impact on the child's behaviour (Kirsch, 2006; Blumberg, Bierwirth & Schwartz, 2008). The impact of exposure to cartoon violence and violence in the media may remain regardless of whether children choose to copy or imitate it in the short-term (Bushman & Huesmann, 2006). Violent characters in cartoon aggression offer to children many models of aggressive behaviour (Larson, 2003).

Social learning theorists argue that children are not actually born with the ability to act violently but that they learn to be aggressive through their life experiences. These experiences include personally observing others acting aggressively to achieve some goal. Children learn to act aggressively when they model their behaviour on the violent acts of adults. This is consistent with the study of Bandura (1975) who found that most human behaviour is learned observationally through copying: from observing others one forms an idea of how new behaviours are performed, and on later occasions this coded information serves as a guide for action. Bandura and Ribes-Inesta (1976) showed that aggression reinforced by family members was the most prominent source of behaviour imitation. Children use the same aggressive tactics that their parents display when dealing with others. They learn to act aggressively when they model the behaviour of violent acts by adults, especially family members (Siegel, 1998). They attend to what the aggressor is doing and saying in order to reproduce the model's behaviour (Allen & Santrock, 1993). People are more likely to copy someone they are looking at. Individuals in close intimate contact with one another imitate each other's behaviour, and people have a greater tendency to imitate the fashions and customs of those with whom they have the most contact (Williams & McShane, 1999).

Findings from this study could assist educational authorities in the development of preventative strategies in both private and public primary schools for reducing bullying problems. School administrators, school advisors counselors, teachers, and parents should work together to create an intervention and prevention plan that aims to prevent and reduce the rates of bullying.

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Table 1. Bullying questions

Bullying questions	
1. In a past year, have you ever harmed anyone bodily?	
<input type="checkbox"/> Yes	<input type="checkbox"/> No
2. If “yes”, In what way? (Can choose more than 1 choice)	
<input type="checkbox"/> Kicked	<input type="checkbox"/> Hit
<input type="checkbox"/> Bit	<input type="checkbox"/> Pushed
<input type="checkbox"/> Throwing something at	<input type="checkbox"/> Beat
<input type="checkbox"/> Pinched	
3. In a past year, have you ever hurt someone feelings verbally?	
<input type="checkbox"/> Yes	<input type="checkbox"/> No
4. If “yes”, In what way? (Can choose more than 1 choice)	
<input type="checkbox"/> Revile/ scolding/ name calling	<input type="checkbox"/> Insulting parents’ occupations
<input type="checkbox"/> Insulting parents’ names	<input type="checkbox"/> Insulting appearance
<input type="checkbox"/> Insulting economic status	

Table 2. Factor analysis of type of bullying

	Factor loadings			
	Serious physical bullying	General physical bullying	Psychological bullying (Maligning parent)	Psychological bullying (Maligning student)
Kicked	0.822			
Hit	0.825			
Bit	0.380			
Pushed		0.458		
Throwing something at		0.507		
Beat		0.587		
Pinched		0.783		
Scolding/ name-calling		0.366		
Insulting parent’s occupation			0.878	
Insulting parent’s name			0.399	
Insulting appearance				0.448
Insulting economic status				0.765

Table 3. Associations between ‘those who had bullied others’ and determinants

	Bullied others			p value
	Not bullied (1,139)	Had bullied (301)	Total (1,440)	
School location				0.399
Urban	49.4	52.2	50.0	
Rural	50.6	47.8	50.0	
School type				0.049*
Private	29.0	23.3	27.8	
Public	71.0	76.7	72.2	
Gender				0.000**
Girl	59.2	41.2	55.4	
Boy	40.8	58.8	44.6	
Religion				0.000**
Muslim	56.4	44.9	54.0	
Non-Muslim	43.6	55.1	46.0	
Age				0.006**
8 yrs or less	36.2	28.2	34.5	
9-10 yrs	34.3	33.3	34.0	
11 yrs or more	29.7	38.5	31.5	
Parental physical abuse				0.000**
No	87.6	49.5	79.7	
Yes	12.4	50.5	20.3	
Preference of cartoon type				0.000**
Comedy	28.2	16.6	25.8	
Action	21.2	44.2	26.0	
Mystery	50.6	39.2	48.2	
Number of close friends				0.051
2 persons or less	32.8	29.9	32.2	
3-5 persons	42.3	38.2	41.4	
6 persons or more	24.9	31.9	26.4	

* p-value < 0.05

** p-value < 0.01

Table 4. Reduced model of association between determinants and the outcome of bullying, final model.

Factors	Odds Ratio	95% Confidence Interval	p-value
Gender			0.000
Girl	1		
Boy	1.82	1.36-2.44	0.000
Religion			0.000
Muslim	1		
Non-Muslim	1.69	1.26-2.25	0.001
Age			0.002
8 yrs or less	1		
9-10 yrs	1.24	0.87-1.78	0.238
11 yrs or more	1.81	1.27-2.58	0.001
Parental physical abuse			0.000
No	1		
Yes	7.60	5.60-10.31	0.000
Preference of cartoon type			0.000
Comedy	1		
Action	2.87	1.91-4.30	0.000
Mystery	1.30	0.88-1.92	0.181

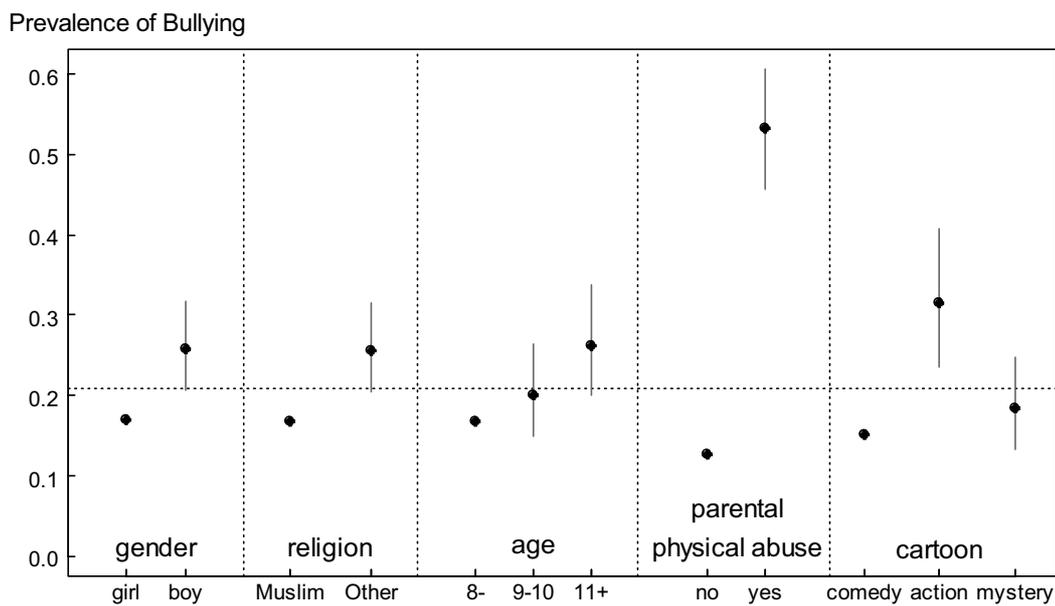


Figure 1. Prevalence of bullying others by risk factors



An Analysis of Cross-Border Mergers and Acquisitions' Effects on China's Automotive Industry Security and the Countermeasures

Jianhong Huang

College of Tourism, Hainan University

Haikou 570228, China

Tel: 86-898-6625-8711 E-mail: yanhuang3721@yahoo.com.cn

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Abstract

Along with the opening up of China economy, cross-border mergers and acquisitions exert a greater effect on China's industrial security. This paper is chiefly to discuss the influences of cross-border mergers and acquisitions on China automotive industry security. Based on convincing investigations and researches, this paper analyzes China automotive industry's domestic demand conditions, self problems, and cross-border mergers and acquisitions' influences on the industry, and advances relevant countermeasures and suggestions for improving China automotive industry security.

Keywords: Industrial security, Cross-border mergers and acquisitions, Automotive industry

In order to further study the impacts of cross-border mergers and acquisitions on China automotive industry and get more real data, the author collects useful information from China Statistical Yearbook, World Competitiveness Yearbook, The Yearbook of World Trade, and China Automotive Industry Yearbook published in recent years, and analyzes the problems of China automotive industry and cross-border mergers and acquisitions' impacts on the industry.

1. The domestic demand and the tendency of China automotive industry

China has already established the target of building up a comprehensive well-off society at the first twenty years in the new century. In 2020, GDP will be twice of that in 2000, reaching 4000 billion US dollars. At present, the western development program, the old industrial bases revitalizing, and newly issued a series of measures and suggestions for industrial structure upgrade will help to exert regional and industrial comparative advantages, shorten the economic gap between the east and the west, drive the healthy and harmonious development of national economy, promote the harmonious and fast growth of industry, what will undoubtedly bring about the fast rise of automobile demand. Meanwhile, the state adopts a series of effective measures and policies that aims at increasing farmers' income. To improve people's living level can also lead to the rise of consumption.

On May 7th, 2007, Organisation Internationale des Constructeurs d'Automobiles (OICA) publicized the statistical data of 2006 automobile output. Data show that Japan's automobile output surpasses America's in 2006 again, reaching 11,480,000 automobiles, increasing 6.3% than that in 2005 (the output is 10,800,000 automobiles in 2005). China's automobile output is 7,190,000 in 2006, far exceeding than German's 5,820,000 automobiles. China has already become the third automobile production country in the world. In 2006, China's automobile output realizes a 25.0% rise than 2005. In 2005, China's automobile output is 5,710,000. In 2006, China's automobile output has become the No.3 in the world. If China's automotive industry develops at this rate, till 2010 China's automobile output will be No. 1 in the world.

Along with the economic development and urbanization process, consumers like pretty, comfortable, safe, economical, environment-friendly, and energy-saving automobiles. Noticeably, the proportion of cars to automobiles keeps in rising.

In 2005, the proportion is 48.49%. In 2006, the number becomes 53.1%, rising 4.66%. Meanwhile, the proportion of small displacement car is rising quickly. Based on the automobile market conditions in recent five years, the Development Research Center of the State Council makes a prediction for China's automobile market demand: in 2010, the total automobile ownership will reach 59,380,000 and the total automobile demand 9,370,000. China will become the largest consumer for automobiles in the world.

2. Problems in China's automotive industry

2.1 Few independent brands

China's five big automobile groups have cooperated with foreign enterprises to a different degree. A lot of automobiles produced by them are marked with foreign brands. Their international competitiveness is not completely based on independent brands. For example, First Automobile Works' 300,000 Volkswagen, Tianjin First Automobile Works, Shanghai Automotive Industry Cooperation's (Group) 400,000 Volkswagen, Shanghai General Motor's 170,000 vehicles, Dongfeng Motor Cooperation's Fengshen Automobile, Chana Automobile Cooperation's Ford, Beijing Automobile Works' Hyundai and Cherokee are respectively from Volkswagen, General Motor, Ford, Toyota, Nissan, and Hyundai. By means of cooperation, China's five big automobile groups become a part of world ten automobile groups.

Till late 2005, China has 355 brands for trucks, passenger vehicles, and cars totally. Therein, 69% of brands are independent, and 31% foreign brands. But among 100 brands for cars, only 37 brands are independent. As for cars sold in domestic market, the foreign brands in joint production account for 90% of the market share.

According to the market data from Jan. to May in 2006, only Chery, Charade, and Geely belong to independent brands among the top ten brands. Other seven are joint brands. The seven joint brands account for 51.18% of market share.

2.2 Lower industrial concentration

China automobile production enterprises are small in general. In 2004, China has 117 automobile production enterprises. Therein, 23 enterprises realize an annual output less than 100 automobiles. Only 12 enterprises can achieve the annual output above 100,000 automobiles. Most automobile production enterprises do not reach the minimum and optimal scale economic level. In 2006, General Motor's world output is about 9,200,000 automobiles. China's total output is 7,190,000 automobiles, being 78% of General Motor's output in 2006. In China automobile market, the market concentration of First Automobile Works, Shanghai Automotive Industry Cooperation and Chana Automobile Cooperation is 47.8%. In contrast, the market concentration of American and Japan top three automobile enterprises reaches 70% above. Lower concentration is not good for the economy of scale, which may lead to high unit production costs and separate competition.

2.3 Weak R&D

Compared with the country with developed automotive industry, the research and development capability of China's automotive industry is weak. It is still at an imitation stage. Especially for the car, there is no product with independent property right. All relevant technologies or designs are imported from foreign countries or jointly produced with foreign large enterprises. Usually, we use the R&D performance index, namely the ratio R of an enterprise's investment in R&D to sales, to evaluate an enterprise's view toward R&D. This index takes the maximum 1.9% in 2004 as the critical value. Before, it has ever reached 1.38%. After 2005, it fluctuates around 1.4%. In general, in China the average rate of R&D to sales is 1.5%. The number is always 3.5% or so in developed countries. It proves that China automotive industry's investment in R&D is far less than other countries with developed automotive industry.

2.4 Lagged-behind industrial management

Generally speaking, the automotive industrial management is still at a lower level. It faces lots of serious problems. The multiple introduction leads to the fact that the industry has been controlled by trans-national companies. The industrial separation caused by multiple joint investments makes China's automotive industry face a demanding difficulty in structure adjustment. Indeed, by means of joint investment and technology introduction, China's automobile enterprises improve their management and operation level to certain degree. However, domestic automobile enterprises' management system, supply and purchase system, quality system, and personnel mechanism still lag behind the trans-national companies. China's automobile enterprises still face problems of rigidified management system and low efficiency.

3. The main impacts of cross-border mergers and acquisitions on China's automotive industry security

3.1 Strong technological dependence on foreign countries

After more than twenty years' joint cooperation, China's automotive manufacturing industry shows its prosperity. But the absence of key technology brings more profits away. What's more seriously, some experts point out that once the market opens completely, foreign partners may get rid of Chinese partners who do not master core technologies.

Formerly, Shanghai and Changchun automobile enterprises have had the automobile production competence and R&D team. However, in order to introduce the Volkswagen from Germany, they gave up their independent brands, R&D teams, and research platforms. So, they purchase a set of production line and produce a series of automobiles. Then, they purchase a new set of production line and produce a new series of automobiles. As a result, China loses the automobile production technologies and competence. Consequently, 90% domestic automobile market has been occupied by trans-national companies. The market occupation ratio is decreasing. China's automobile enterprises fail to inherit original technologies on one hand. On the other hand, they can not master the brand-new core technologies, becoming a complete dependent industry. The high technological dependence on others reflects that the general development level of industrial technologies is still low. Besides, in China the consciousness of "focusing on the cultivation of innovative competence" and "guaranteeing innovators' rights" is still weak. The cultivation of innovative competence needs the official support. The government should encourage enterprises to absorb and consume foreign advanced technologies and drive the cultivation of innovative competence by arranging innovation tasks, changing the comprehensive dependence on foreign advanced technologies.

3.2 Serious foreign fund holding

In 2003, in the cooperation between Nissan and Dongfeng, foreign funds have already reached the top limit 50%. German Volkswagen invests more in Shanghai Volkswagen and FAW Volkswagen. USA General Motor and Daimler Chrysler increase the investments in their joint enterprises respectively. Japan Honda cooperates with Chinese partners and form Honda Automobile (China) cooperation, in which the proportion of registered foreign funds have reached 65%. During the development of China automobile market, trans-national automobile companies realize their strategic allocation in China by joint-venture and investment. Now, they tend to control the future development of China automotive industry. In the passenger vehicle field that has the greatest potential, it has already formed an industrial development pattern dominated by trans-national companies. The commercial vehicle field also faces trans-national companies' strong penetration at present. In the automotive industry, the rate of foreign fund holding is 21.8%. Therein, the rate in automobile parts enterprises is higher than that in automobile makers.

3.3 The fact that foreign funds control the operation and decision tends to be more serious.

Generally speaking, as joint partners, each side can arrange a chief in every branch. They enjoy equal rights. Key decisions should be made by both sides. In the technology, production, purchase, and finance aspect, the foreign partner has more words. As for the personnel, market, and sales, the Chinese partner has more words. Due to the control over technology, the foreign partner has mastered the right of controlling R&D in the joint venture. A report says that Beijing Hyundai's Korea boarders have already controlled three key branches: R&D, purchase, and sales. As for the sales net, in April 2007, Shaoge Wu, the former senior market manager in Volkswagen (China), replaced Feng Wang in First Automobile Works. Besides, along with the popularization of power-concentrated vertical management mode, the re-programming of sales areas, and the channel reform, Volkswagen successfully controls the First Automobile Works' sales channels in a year. As a matter of fact, First Automobile Works is becoming the "producing shop" of Volkswagen in China. By turning the production-sales separation into the production-sales combination in joint ventures, foreign funds are improving their control over the sales net.

4. Suggestions for improving China's automotive industry security

4.1 Strengthen R&D

Although many large enterprises accumulate some useful experiences for independent R&D along with the fast development of automotive industry in recent years, China's automotive industry still depends on trans-national companies at present, which is determined by the nature of automotive industry: high risks and lagged-behind returns. China's automotive industry does possess any advantage in high value added field, such as R&D, marketing, and brands. The only advantage is the low cost. Therefore, they merely produce some low-grade automobiles. If China's automobile enterprises hope to display their competitive advantages, they must cultivate their own brands and develop new products. Here, the government should offer a complete support, constructing a brand-new technological innovation platform.

In a short period, we can concentrate all technology innovation resources and competence, depend on a brand-new technological platform, and form a positive interaction with the development of automotive industry, driving the automotive industry development. For a long period, we can make best use of the effective operation mechanism and form the innovative competence in key products and technologies, realizing an essential improvement of the automotive industry. For an instance, we should emphasize on the development of new energies and technologies, solving the energy-saving and environment issue. At present, automobiles are mainly fueled by gasoline and diesel. Because the shortage of world oil resources, the development of new energies for automobiles tends to be urgent. The widely accepted best substitute energy is fuel cell. It takes the hydrogen as the energy. The emission is water. Hydrogen can be got from water. Electric power is from wind energy, solar energy, or water energy. However, the high cost of fuel cell

makes it difficult to popularize it in a short period. Therefore, presently many countries' automotive industry is trying to develop the fuel cell technology or research other new technologies. China's automotive industry is not an exception. Soon, new relevant product will appear in China.

4.2 Cancel the super national treatment for trans-national companies

All kinds of automobile enterprises should enjoy equal treatments. The super national treatment is an important factor impacting China's automotive industry development. No matter what it is the industry opening or preferential policy, all enterprises should be equal. Where the trans-national company can enter, domestic private enterprises can enter either. However, even for some large private enterprises, they are not allowed to enter the automotive industry. Besides, the preferential policies in land requisition and taxation should be made for both trans-national companies and domestic enterprises. Otherwise, it will lead to serious negative effects. The society may question the policy and resources could not be distributed reasonably.

Trans-national companies can enjoy the national treatment, what is accepted by Chinese consumers. In a national treatment environment, trans-national companies can compete with other enterprises equally, which will really improve companies' vitality and competitiveness. To cancel the super national treatment will benefit the benign development of China's national economy.

4.3 Perfect the Anti-Monopoly Law and relevant market laws and regulations

In dealing with the monopoly position of trans-national companies in China, China should perfect the Anti-Monopoly Law and relevant market laws and regulations, and construct an effective anti-monopoly legal system, beating the monopoly activities, especially the price monopoly. Besides, set up special anti-monopoly executive institutions that are independent from common administrative agencies, perfecting the anti-monopoly system, and guaranteeing the implementation of Anti-Monopoly Law.

4.4 Set up a dumping recognition system

Since the operation of China industrial pre-warning system in 2002, some auto parts are in yellow warning. Just as what was said by Qinhua Wang, a former officer in the Ministry of Commerce of PRC: "Auto parts suffer more serious monopoly threat than whole vehicles. They may face dumping." Then, it is urgent to construct a perfect dumping recognition system. In 2008, China starts the anti-dumping for key auto parts enterprises, including Bosch and Delphi. It shows China's concerns for the security of domestic enterprises. The anti-dumping recognition system should possess three functions at least: whether it is anti-dumping activity, what the harm to the industry will be if no anti-dumping, and how to take ensured and compensation measures.

4.5 Enhance the cooperation between enterprises

No matter what it is the whole vehicle manufacturing enterprise or auto parts enterprise, they should take references from foreign experiences in R&D, production, and sales field. Different enterprises can share a common R&D platform, breaking the technology bottle-net by cooperation, and defending foreign enterprises' technological restricts. However, this kind of cooperation between domestic enterprises is few. We should encourage enterprises to realize a mutual cooperation. How to protect self and win more time for development by means of trade in local market under the WTO principles will turn into the new subject for China's automotive industry.

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Regional Integration in Asia: Prospects and Challenges

Sa Zeng

School of Foreign Languages, Shenzhen University

Shenzhen 518060, China

Tel: 86-755-2673-2890 E-mail: zengsa@szu.edu.cn

Abstract

Think locally, acting globally. With this motto in mind, this paper aims to show how the becoming ASEAN and its powerful neighbors could avoid costly errors in forming a working union of nations by not looking at the completed total rather than a first, tangible step. By looking at the European Union and how it became what it is today, Asia will be able to avoid exaggerated expectations towards the speed at which a solid agreement can be reached. Especially in regards to the psychological mindset of decision makers grown up in nation centered rather than globally oriented societies will Europe be able to provide a lesson. The paper concludes that a working economic union should be the first step on the way to a united Asia. The underlying condition that most of Asia's economies are controlled by Chinese emigrants provides for a notion which shall be explored as a possible stepping stone on the way to a working economic integration.

Keywords: Regionalism, Agenda 21, ASEM, Asian Union, Asian Development, ASEAN, EU, Asia, Europe

1. Introduction

Having monitored the emerging of the European Union EU over the past few years, there are no doubts that there are many challenges to extended regionalization, such as unemployment, high taxation and lopsided regional development. However, in watching the economic growth of EU members and the emergence of the Euro and its relative strength to the U.S. dollar, it is apparent that the prospects of prosperity and a brighter economic future far outweigh the challenges. The success of the EU should cause members of ASEAN (Association of South East Asian Nations) to work closely together to further develop and strengthen their economic and cultural ties, for the benefit of all members.

2. History and Current Situation

In East Asia, the process of regionalization has been driven by market forces or state-sponsored regional projects. ASEAN was established in 1967 and initially there were 5 members: the Republic of Indonesia, Malaysia, the Republic of the Philippines, the Kingdom of Thailand and the Republic of Singapore. With ASEAN's expansive influence, 5 more countries joined the group and made it a bigger family. They are the Socialist Republic of Viet Nam, the Lao People's Democratic Republic, the Union of Myanmar, Brunei Darussalam and the Kingdom of Cambodia. Until 1998, ASEAN became a regional cooperative union with ten Asian countries, 4.5 million square kilometer territory, 500 million population and 700 billion US dollars of GNP. ASEAN has made up its own kingdom which is similar to the European Union (EU) in Europe.

Obviously, ASEAN is different from EU in many aspects. After all they are located on different continents. However, there are still some similarities between ASEAN and EU. Firstly, the member countries of each have similar religious history. Most Europeans believe in Christianity while the religious root in Asia is Taoism. Both of them overcame persecution from other religions before they became the principle regional religions. This is really important. "Collective identification merges the self and the other into a single identity and involves shared characteristics.... Collective identity, in short, is a distinct combination of role and type identities, one with the casual power to induce actors to define the welfare of the other as part of that of the self, to be altruistic. The effect of people perceiving themselves of part of a group leads to group optimizing behavior. The most important work in this regard is offered by John Nash and his famous Nash equilibrium: The best decision optimizes the welfare of the individual and, at the same time, that of the group members if his or her group. (Nash, 1950/51). In other words, altruistic actors may still be rational, but the basis on which they calculate their interests is the group or team". That's what regionalization needs. Additionally, both Europe and Asia have undergone the distress of wars. Their leaders and people made a leap in the war, understanding that only by relying on collective strength can the possibility of the third world war and negative

effects of economic globalization be resisted. One could understand the building of a regional alliance as the formation of an interest group. The avoidance of war and the maintenance of peace as well as supporting economic prosperity are two reasons which could well form the underlying. One does not go without the other.

3. Challenges

As was the case for the EU, it seems that Asia can build up an economic group which involves most of the Asian countries, similar to what was done in the EU. One should not that the emphasis in ASEAN lies on “economic cooperation” much rather than a political union.

Looking at the EU will highlight some areas which are and were problematic in Europe and, could be so in Asia as well. Before the European Union was even ready to be getting close to what it is today, two world-wars were necessary. Only after the Second World War did France and Germany commence the first small economic collaboration in 1952 (Coal and Steel Union) which later laid the foundation for a greater economic union (1958, Nuclear and Economic Union). The careful foundation of the “EU” did not happen until 1992 and the first solid integration of all coexisting treaties has not happened until today. And why not? Ireland as the last remaining member refused to ratify the otherwise completed EU contract.

In all cross-cultural groups, functioning depends on recognition- and respect- of all member’ individual background as well as the avoidance of any culture’s dominance of the others (Adler 2001). Trusting one another is a time consuming activity, possibly that’s why the EU is not yet “complete”.

Regarding the birth pains in Europe it is worthwhile considering the Asian Development Bank’s (ADB) strategy paper. In “Strategy 2020” the ADB identifies a total of nine challenges, the top three being: Poverty, income gap between people and demographic challenges (ADB 2008).

Again looking to the European Union, strong gradients in economic prosperity have been a constant headache in developing joint policies. Also it should also be mentioned, that the discussion about a “core EU” consisting of only the economically strongest partners is a seasonally recurring event. Considering the above mentioned challenges identified by the ADB, the evolving ASEAN should be prepared for similar discussions as the economic gradient in Asia is at least as strong as that in the EU.

4. Trends and Prospects

ASEAN is growing. Japan has signed the Free Trade Agreement with Singapore and is discussing a similar agreement with the ROK. China and the ASEAN have declared that they will set up a free trade zone in 2010 and China is intensifying its efforts to study the feasibility of entering into additional free trade agreements with Japan, and the ROK. Close economic intercourse between East Asian countries is unprecedented and economic dependence between them is on the rise. Interest interrelation is the basis of regional identification, while recognition of shared interests is the key to promoting identification.

Regional integration is a global trend. Areas of the world are tying closely together. The Asian governments have come to realize the necessity of regional integration and the everyday citizen is coming to realize it as well. The Asian financial storm is a classic example. In 1997 the Asian economy was seriously damaged causing chaos in the stock market and the devaluation of many Asian currencies. It hit the governments hard but the average person even harder, spurring East Asian countries to join hands in resisting the negative effects of economic globalization and causing East Asian regional integration to enter a new phase. As a direct result, regionalization in Asia has become a trend which will improve the economic and cultural cooperation.

Considering the prospects: what Asia has that Europe doesn’t have is the world’s largest labor force. We can change disadvantage into advantage which means to improve productivity through both technology and labor. The good use of labor force can increase people’s income and decrease unemployment. In this case, the development of ASEAN members can lift the socio-economic standards of its members by raising the standards of living in their countries. The raising of the living standards in their countries also lifts the socio-economic standards of the whole unit. It is a win-win situation.

The significance of establishing an economic group in Asia is necessary and rational. The success of the EU provides a blueprint to follow and provides significant data which Asia can learn from. Since building up the single market, EU removed 15 trade borders, created 2.5 million positions for people all around the world, and netted 900 billion EU dollars.

5. The Chinese Diasporas in Asia

The ASEAN nations comprise a total of about half a billion people, most of them being native to their respective home countries. An extremely interesting notion is that all of the Southeast Asian nations maintain relatively small Chinese minorities, i.e. populations of Chinese emigrants.

One general fact that sets Chinese populations aside from that with native roots is the propensity for engaging in business transactions. Whether this propensity is born out of necessity or a difference in culture is secondary to this argument. Observations from the US and Malaysia suggest that a strong driver in this behavior is born out of necessity. The Chinese diasporas being mostly recent, at best second or third generation immigrants, lack access to “for granted income”, such as government positions and/or jobs obtained through kinship in established businesses. Niche forming and occupation is a natural behavior to minorities whose cultural values set them aside from the majority population. Examples here are, e.g. newspaper stands or laundry businesses, which are exclusively run by one ethnic minority. Since there is no legal protection for such behavior, it can be deduced that these minorities resort to their own system when it comes to protecting themselves in this regard, i.e. organized crime.

What distinguishes Chinese minorities in ASEAN from those elsewhere?

Certain ASEAN nations are called “tigers”, for their successful economic development in recent decades. Notably in Malaysia and Thailand, the majority of the population, native Thais and Malays, are an easy-going laid-back people who, e.g. in universities, differentiate themselves from their fellow countrymen of Chinese origin in the way, that they often refuse to frequent a university course which is also frequented by Chinese students. This behavior is, as it might seem, not racists rather than self-protective. Chinese students are pushed hard by their elder generations to study and work hard. Consequently, competition and contribution value in those classes is above average- making it more difficult to obtain a good grade.

This behavior translates into the working population, i.e. two thirds of the Malay GDP of 2002 was generated by Chinese (and Indian) minorities who offer, together app. 20% of the total population. The situation is similar in the Philippines and Thailand.

The how about a stepping stone for an economic union?

It would be wise for ASEAN (and Chinese) public representatives to bear in mind the economic structure of Asia when building an Asian Union.

Research done in 2002/03 among European manufacturers in ASEAN already suggested that one would make investment decisions majorly based on trade policy decisions of the People’s Republic of China. During this period, interviews were conducted with representatives from large European car manufacturers such as BMW and Daimler which had, at this time, just invested in factories in Thailand, assembling completely knocked kits (CKD) of parts produced in Germany. These type of factories were and are used as a step in between a full production line and pure import business and normally, this behavior is looked upon benevolently by respective governments. Although CKDs are, in terms of value, almost completely imported, some value does get added and some knowledge does get transferred, in return for which those companies are e.g. import tax exempted.

The case of ASEAN and China (and Japan and Korea) again shows the need for a union. The more expensive an investment in any single market, the more security this investment will need in terms of serviceable markets. If Asia maintained its sovereign behaviors in regard to tax policies, import and export regulations, individual countries face the risk of either not being serviced and / or not being considered for investment at all.

Simultaneous to large European companies opening Asia serving manufacturing centers in China, Chinese companies began to repatriate their own low-cost production to ASEAN nations, as labor cost in some coastal regions of China is not “low-cost” any longer. Quite often, Chinese administration welcomes or induces such investment by, e.g. removing preferential policies which might have been initial reasons for a company to move to that location.

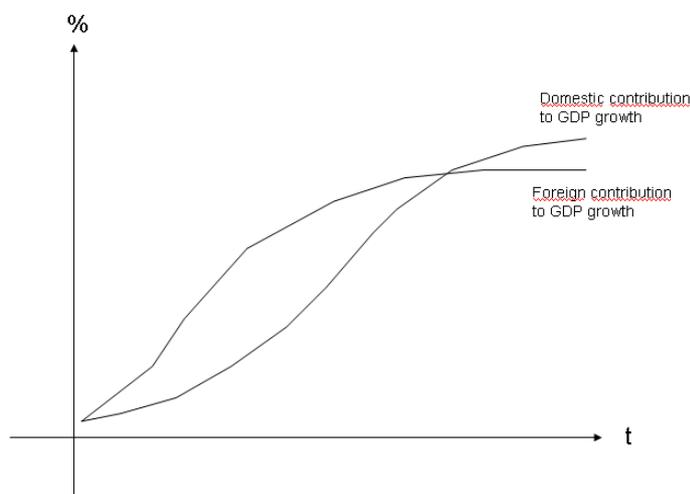
One of the most famous examples is Shenzhen based TV producer TCL, which was among the first (interview 2004) to move production away from the coast.

The notion to be explored is such that the Asian Union or any free trade area would not be an “equal” partnership between sovereign nations, yet not equal in economic terms. In a partnership between ASEAN and the People’s Republic of China, ASEAN provides roughly 25% of the total population. The degree of organization of ASEAN will never equal that of the PRC and such, ASEAN leaders would be wise to accept that China must be the implicit leader in an Asian Union. Considering China’s non-invasive foreign policy and, historically, lack of imperialist behavior makes it an ideal candidate, disregarding the fact that it is the only one.

6. Recommendations

As Asia is still developing in most parts, development is a tight rope walk between maintaining stable and sustainable economic growth on the one side and investor’s confidence on the other. Only if these two factors are given, will those two factors eventually intersect, then delineating the transition from developing to developed nation. In other words, during the first years of a developing country’s development process, foreign contribution to GDP development pulls, in a well managed development, domestic contribution to GDP along until local contribution to GDP is larger than foreign contribution. This development is also called “sustainable development”. Several nations, many of these on the African

continent, have not experienced a well managed development process and have also not experienced the status of being economically and politically stable nations.



For Asia, the major task will be how to structure the union. Again, Beijing provides a type of policy making, which sets a bright- and undoubtedly successful- example. Instead of relying on US driven (and currently spectacularly failing) free market philosophy, a more mechanist paradigm seems to provide a more efficient outcome on a macroeconomic level.

Instead of letting all industry develop freely, certain areas- provinces or parts of provinces- are market for development by designated industries. These might either be naturally determined, i.e. a region with large amounts of natural resources, will of course receive promotion for related industries, while undetermined regions which might offer “only” space and a sufficient labor force, can be freely determined by the central government.

Example: Shenzhen, with a total population of 14 million which is still increasing, in southern China was marked for high-tech development adopting modules like government-supported high-tech parks with favorable conditions for young entrepreneurs and new start-ups coming from all parts of the country and even the world - an areas in which less than 30 000 fishers and farmers dwelled thirty years ago. Today, Shenzhen has had to cut preferential tax treatment and has, as above mentioned TCL, long since begun to transfer low-value added labor intensive industries to China’s hinterland and / or to neighboring ASEAN nations such as Vietnam and Cambodia.

Why not apply a similar policy to Asia as a whole? Most ASEAN nations have a lower population than most of China’s provinces. In this sense, Asia can also look to Europe and its related problems- i.e. the struggle between economic efficiency and national ego to adjust in the interests of the union. The EU makes it clear, how long and tedious this process is. It also makes clear, how nations who have been fighting each others still in the last century, i.e. France and Germany (comparable to Japan and China) are able to join hands and, most of the time, care about the greater good.

7. The Sciences

If social notions such as sustained peace and freedom are not enough, economic theory offers plenty of ammunition for the above outlined argument. John Nash- the Nash Equilibrium- even offers the ultimate reason, such that most efficient outcomes are obtained when thinking egoistically and for the group one is embedded in simultaneously. Eric Maskin (together with Leonid Hurwicz and Myerson (CHECK)) offers an add-on on how to optimize certain government policies.

8. Conclusion

In Asia there are some key competing regions with different national characteristics, such as Japanese regionalism, Korean regionalism, and Chinese regionalism. However, it is clear that the prospects of prosperity and a brighter economic future far outweigh the challenges. After all, Asians do need to develop their own policies, heeding their very own challenges. The primary task for countries in Asia's regional cooperation is to integrate these obviously contradictory and competing regionalisms into a relatively single and shared regional union.

The Asian Economic Union is a goal to work for.

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Tourism Development: A Geographical Perspective

Khairil Wahidin Awang (Corresponding Author)

Department of Hospitality and Recreation

Faculty of Economics and Management, Universiti Putra Malaysia

43400 Serdang, Selangor, Malaysia

E-mail: khairil@econ.upm.edu.my, khairilawang@yahoo.com

Wan Melissa Wan Hassan

Department of Hospitality and Recreation

Faculty of Economics and Management, Universiti Putra Malaysia

43400 Serdang, Selangor, Malaysia

E-mail: Melissa@econ.upm.edu.my

Mohd Salehuddin Mohd Zahari

Faculty of Hotel and Tourism Management

MARA University of Technology, Malaysia

E-mail: mohdsa02@salam.uitm.edu.my

Abstract

This paper represents an effort to conceptualise tourism and development, and their interlinking features, within the broad geographical perspective. It suggests that, as an industry, tourism has evolved along the development path of dominant development theories; Modernisation, Dependency, Neo-liberalism and Alternative development. The findings suggest that, by utilising the frameworks of these development theories, one could analyse and evaluate dynamic tourism processes, a necessity in understanding how tourism works.

Keywords: Tourism, Development, Modernisation, Dependency, Neo-liberalism, Alternative

1. Introduction

Tourism is the world's largest industry (Scheyvens and Momsen, 2008). As a sector of the economy, tourism is used by many countries to advocate economic development. It is used as a development strategy due to its economic effects such as generating foreign exchange, creating employment and stimulating local economies (Sindiga, 1999). It is suggested here that tourism has evolved, and has continuously progressed along the trajectory path of development theory. On the other hand, the processes that produce these forms of development are susceptible to features generated by the surrounding environment. This includes prominent economic, cultural and political aspects.

2. Definitions of Tourism

Tourism has pluralistic meanings (Smith, 1988). Mieczkowski (1981) and Hall and Page (1999) contend that scholars are troubled by the multitude meanings and concepts of tourism. Thus, there is no standard meaning of tourism whereby researchers can have a point of reference. Consequently researchers are spending more time debating typologies and classification rather than exploring the actual content of tourism, leisure or recreation. For example, Pigram (1985) argues that tourism is a component of recreation, while Murphy (1985) counter-argues that. Nonetheless Dan and Cohen (1991) note that there are also scholars who adapt a more eclectic stance, instead of being tied down by a specific theoretical approach. In this manner researchers adapt their choice of concepts and meanings according to the demands of their work. Smith (1988) argues that researchers, international and national tourism associations, business entities and government agencies give different definitions based on their own perception and interest. Policy-led and

industry sponsored research work, for example, may ensure an inclination towards industry priorities, while scholars will define tourism from within their own intellectual domain. Jafari (1977, p. 6) defines tourism based on an anthropological point of view. "Tourism is the study of man [sic.] away from his usual habitat, of the industry, which responds to his needs, and of the impacts that both he and the industry have on the host's socio-cultural, economic, and physical environments". On the other hand Murphy (1985, cited by Smith, 1988, p. 9) defines tourism as "the sum of ... the travel of non-residents (tourists, including excursionists) to destination areas, as long as their sojourn does not become a permanent residence. It is a combination of recreation and business". Nonetheless, Shaw and Williams (1994) argue that the World Tourism Organisation's (WTO) definition of tourism or tourist is the most commonly used by literature on tourism.

"Any person residing within a country, irrespective of nationality, travelling to a place within this country other than his usual place of residence for a period of not less than 24 hours or one night for a purpose other than the exercise of a remunerated activity in the place visited. The motives for such travel may be (1) leisure (recreation, holidays, health, studies, religion, sports); (2) business, family, mission, meeting" (WTO, 1981, p. 89).

Smith (1988, 1995) contends that the WTO's definition gives guidelines on statistical data collection and thus it gives the most agreed point of reference. These guidelines give scholars, governments and institutions a means to not only measure the growth of tourism within their own constructed borders but also a means to compare them on a global level.

3. Tourism and Development

Smith (1988) and Britton (1991) argue that much tourism work lacks a theoretical framework, due to the fact that many of the contributors are trained in peripheral fields, and thus are not exposed to the dynamic complex of social and cultural processes, which inundate tourism phenomena. Previous tourism related studies in the literature, which has a significant amount of work revolving around the impacts of tourism, witnessed concepts and theories that were borrowed or adopted mainly from other branches of social sciences, including geography, though, many researchers failed to recognise their origin (Goeldner *et al*, 2000). For example, concepts and framework from Geography often serve as foundations for the study of tourism, where the dynamic process that underlie a tourism destination could be understood using approaches such as spatial analysis (Pearce, 1995; Johnston, 1997).

On the other hand, Pearce (1979) identifies six major areas of specialisation from the perspective of geographical interest in the study of tourism: the spatial aspects of supply, the spatial aspects of demand, patterns of movement and flows, the impact of tourism, the geography of resorts, and models of tourist space. Erstwhile, Oppermann (1993) and Pearce (1995) suggest that existing geographically-related theories in tourism have grown along two main paradigms: the diffusionist model and the dependency model. Both contain the construction of places and spaces at their heart (Crang, 1997). However, the former addresses tourism as a regional agent of development, and as such, tourism development is diffused from core to peripheral areas. The latter on the other hand, carries the notion of a subjugated peripheral area by its core counterpart. In the context of countries deemed peripheral, such as the world's less developed countries, there is little detailed research undertaken on tourism (Brown and Hall, 2000).

3.1 Modernisation Theory

In the context of modernisation theory (Note 1), tourism has been advocated as a development strategy to generate foreign exchange, to increase the balance of payment, increase GDP, attract development capital, increase the transfer of technology, increase employment (Shaw and Williams, 1994) and promote modern western values of life (Mathieson and Wall, 1982). Van Doorn (1979, cited by Pearce, 1989, p. 12) contends that the processes of tourism development could only be elucidated within the context of the development stage of a country. In this sense, Rostow's (1967) argument that there are five stages of economic development was imperative when tourism development was discussed. Elsewhere, Thurot (1973) has suggested that there are three stages of development in relation to the evolution of the airlines routes. However, Miossec (1976) proposes five stages of development, from the original pioneer resort to a fully developed hierarchy and specialised saturation stage when conceptualising tourist space dynamics (Oppermann and Chon, 1997). Modernisation in tourism development also stipulates for the consumption of 'experience' as an end product. Tourists improved their social structural status when they manage to travel and consume these experiences (Wang, 2000) and hence fulfil their ego needs (Maslow, 1987). (Note 2)

Butler (1980) further improvised the evolution of tourism development through his product cycle-based evolution of tourist destination (see figure 1). Butler proposes six stages of development: involvement, exploration, development, consolidation, stagnation and decline or rejuvenation. More recently, Agarwal (2002) has used Butler's work as a template when she contends that many British seaside resorts, which were in the stagnating or declining stage, (Note 3) have rejuvenated when for example theme parks were introduced at these resorts. Agarwal argues that endogenous or exogenous forces also play a significant role in a process of destination development. In the context of number of stages

involved in tourism development study of destination, Oppermann and Chon (1997) argue that there is no unanimous number.

Meanwhile, Myrdal (1957) uses regional economic development theory in tourism studies, to look at the filtering of economic benefits through regional, national and local economies. In parallel, Pearce (1989) argues that tourism has been used as a tool of distributive justice. Similarly, the establishment of the tourist boards for England, Wales, Scotland and Northern Ireland during the late 1960s, which was initially linked to regional economic policy, underpinned the Labour government's orientation towards welfare, which has resulted in a much stronger public intervention (Hughes, 1992). Significant powers of strategic planning were also bestowed on local government at county level in England and Wales, and at regional level in Scotland.

Apart from influencing local authorities, whose new powers in strategic planning were recognised as an important tool in the managing of tourism, the English Tourist Board (ETB) also adopts the thesis of "growth poles to tourism growth points". For example, a grant under Section 4 of the Tourism Act stipulate that the ETB could adapt a confinement of eligible projects to areas within England that were formally designated as development areas. Similarly, Baidal (2003) explores the decentralisation of the state's power in Spain during the late 1970s (post-Franco's authoritarian administration) that paved the way towards regional development policies on tourism. Under the Franco's regime, the foundations for tourism development revolved around macroeconomic objectives that treated tourism as a generator of foreign exchange to rehabilitate the balance of payments, which had been in deficit. But by the 1990s policies on tourism were based on the configuration of a framework of collaboration between regional and local authorities and the central administration (Ibid). Baidal contends that the adoption of the EEC's (Note 4) structural policy principles, (Note 5) and becoming the net recipient of financial resources from the European Union's budget, provided the impetus for the creation of new tourism products that entailed the organisation of new emerging spaces (e.g. coastal, urban, rural or mountain). Consequently, the manifestation of microeconomic objectives in favour of past macroeconomic objectives resulted in qualitative changes and expansive tendency in tourism demand that gave rise to a new model of tourism in Spain (Baidal, 2003 and 2004). From a different perspective, Oppermann (1992), through the use of international forms of tourism, explores the use of tourism as a tool for regional development in Malaysia. He found that 'active' travellers who travelled and stayed in many destinations contributed more to regional development while 'passive' travellers tended to reinforce existing spatial disparities. (Note 6) His research also dwells on the issues of dualism in developing countries, where he argues that tourism is least important in Malaysia's peripheral regions while at the same time its political and economical centres have more than the average share in tourism industry.

However, writers such as de Kadt (1979) and Komilis (1994) began to question the use of tourism as a development tool. De Kadt, for example, questions the benefits posed by tourism where the multiplier effects are lower and leakages are higher than had been previously presumed. On the other hand, Komilis specifically argues about the effectiveness of using tourism in regional economic development in peripheral areas. Such issues are underpinned by the relationship between central and peripheral countries.

3.2 Dependency Theory

Tourism development in peripheral countries is strongly influenced by events in the core countries. The flow of mass tourists from central to peripheral countries, and the running of hotels and resorts, are subject to various control mechanisms found in the former (Britton, 1989). The roles of tour operators in core countries, one of the most influential tourism suppliers due to their huge financial resources and industrial leverage, (Note 7) for instance, can exert a strong impact on the occupancy rate of hotels and spatial distribution of tourist flow in receiving countries, many of which resemble peripheral areas (Shaw and Williams, 1994). Furthermore, many of the hotels, particularly those of an international class, are owned or managed by Transnational Corporations. However, Din (1990) contends that not all international standard accommodation chains in developing countries belong to developed countries and hence are not controlled by external force. He exemplifies this notion by noting that locals own several of the luxury hotels in Penang, a tourist destination area in Malaysia. At a different level, these relationships posit the notion of underdevelopment of developing countries because of the exploitation by developed countries (Britton, 1989; Harrison, 1995). "Thus, according to dependency theory, tourism is an industry like any other, which is used by the developed countries to perpetuate the dependency of the developing countries. Instead of reducing the existing socio-economic regional disparities within the developing countries, tourism reinforces them through its enclavic structure and its orientation along traditional structures" (Oppermann, 1993, p. 540).

In parallel, Walpole and Goodwin (2000) contend that this peripheral relationship also exists in a local context. Their study of ecotourism in the protected Komodo National Park in Indonesia, illustrates that economic distributional inequalities favoured external operators and urban residents rather than the villagers. Outsiders control most of the accommodation and boating facilities.

3.3 Neo-liberalism

Meanwhile, a chain of global events, including the oil crisis and economic depression that occurred from the mid 1970s to the mid 1980s, has led to an increase in neo-liberalism in tourism development in many developing countries (Desforges, 2000; Milne and Ateljevic, 2001). Desforges (2000) contends that the national government in Peru 'rolled back' its active role when President Alberto Fujimori imposed a drastic cut in state spending on the tourism industry. The state tourist board's budget went down to zero until it could clearly define and justify its role, and the Ministry of Industry, Tourism and Integration and Commerce's number of employees reduced from 2700 to 300, while state owned hotels were privatised and fees were imposed at the state's tourism school.

Such deregulation, privatisation and liberalisation acts, which were partly inspired by the World Bank and IMF through SALPs, have reduced state influence (Milne and Ateljevic, 2001) and at the same time the acts permitted the increased role and importance of the private sector in the tourism industry. Brenner and Theodore (2002) contend that neo-liberalisation has entailed a reorganisation of institutional, political and geographical settings. Nonetheless the decline of the political-economic power of a nation-state in the advent of a crisis of profit in global economy foretells post-Fordism (Harvey, 1990). Fordism is characterised by economies of scale, mass replication, small number of dominant producers, product standardisation, inflexibility and mass marketing to an undifferentiated clientele while its post period is underpinned by more specialised and small scale production.

3.4 Alternative Development

The last remaining form of tourism development is alternative tourism. The concept started to surface in the literature some two decades ago (e.g. Dernoï, 1981; Jenkins, 1982). Mowforth and Munt (2003) argue that there is no standard uniform agreed meaning among scholars pertaining to this form of tourism. Butler (1990) suggest that alternative tourism has been associated already with wide ranges of different notions and concepts, and therefore it is impossible to define it explicitly. Nonetheless, the approach has remained focussed on the concept of sustainability (ibid), a concept that can be traced back to the conservation movement in the west during the late 19th century (Hall, 1998). However, in the context of tourism specifics, concepts of alternative tourism encompass a range of tourism strategies that include 'soft', 'responsible', 'green', 'appropriate', 'controlled', 'people friendly', 'small scale' and 'cottage' characteristics (Conference Report, 1990). The 'green movement', which is associated with the wider concept of the 'green consumer', for example, puts forth the promotion of environmental issues in tourism (Shaw and Williams, 1994). Krippendorf (1986), furthermore, argues for the notion of 'a soft and human tourism', which discourages intolerable social and ecological damage. Environmentally conscious tourists, many of whom are part of the 'inner-directed' lifestyle group whose leisure pursuits are motivated by new experiences, creativity, human relations and personal growth (Gordon, 1991), lead to the demand for environmentally sound holiday. Gordon adds that it is the tourists' influence that forces politicians and tourism businesses alike to consider the environment a genuine concern. Such conditions culminated in ecotourism, a new form of tourism development:

"Travelling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring, and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestations (both past and present) found in these areas..." (Ceballos-Lascurain, 1987, cited by Boo, 1990, p. xiv).

While Shaw and Williams (1994) noted a new trend in which tourism businesses such as tour companies have started to reassess their image by offering 'ecological holidays' to potential clients, Mowforth and Munt (2003, p. 80) suggest that "...the term 'sustainability' can be and has been hijacked by many to give moral rectitude and 'green' credentials to tourist activities". Similarly, Ioannides (2001) treat the phenomenon cautiously. Ioannides argues that British-based International Federation of Tour Operators (IFTO) embrace of sustainable tourism is more to do with profit, particularly in an era where tourists are becoming discerning and sophisticated. However, Shaw and Williams (1994, p. 247) argue that "while many tourists will only pay lip-service to 'green holidays', as equally will sections of the tourism systems; but this may not ultimately detract from the importance of green tourism". To this Poon (1994) surmises that in the era of 'new tourism', package tours are fast becoming a thing of the past and tourism has become segmentalised.

In the same vein, Ateljevic and Doorne (2000) argue that small-scale tourism businesses are becoming more important due to the demand of a new hybrid of tourists. The advent of this lifestyle entrepreneur has been a positive stimulus in the growth of small tourism related businesses or tourism entrepreneurship. Ateljevic and Doorne argue that unlike the conventional entrepreneurship of production and consumption, the lifestyle entrepreneur has an underpinning factor in that "business represents an opportunity to indulge in in-depth place experience, which integrates both lifestyle and identity" (Ibid, p. 378). In this sense, lifestyle, rather than economic gain is the main motive behind business operations such as the Black Water Rafting, an enterprise that deals with river 'sledding' activity in New Zealand. Hence 'lifestyle' is one of the diverse reasons on why people indulge in tourism related businesses other than financial rewards. Ateljevic and Doorne go further by denoting that these entrepreneurs had social and cultural obligations, which more than often delimit the growth of their businesses. They are content with their ways of life.

However, Shaw and Williams (2004) offer caution against such a notion. According to the authors, how these businesses are run varies according to the place and type of touristic activities. Based on a study of the surf tourism industry in Cornwall, they argue that although surf entrepreneurs are influenced by desires for freedom and being their own boss, and have interest in the environment, there is clear evidence that they, nonetheless also, have plans for business development and expansion, and are therefore profit oriented.

Meanwhile, sustainable tourism has taken the phrase alternative tourism, a generic term, to distinguish it from the conventional mass tourism (Butler, 1990; Weaver, 1991). Table 1 illustrates Weaver's notion of alternative forms of tourism, which among others have criteria that denote small-scale accommodation development, lower market volume and low import sector. Using Dominica as a case study, Weaver (1991) argues that tourism which started as a 'circumstantial' alternative tourism destination, conform to characteristics such as low visitation and impacts levels. Such a situation mirrors Butler's (1980) early stage of exploration and involvement. Dominica adopts a philosophical approach towards alternative tourism, using the Kastarlak Report (a United Nations' sponsored report on Dominica) as a blueprint to move forwards. This suggests among other things, specialised markets, such as environmentalists, as suitable for the country's tourism industry.

Alternative tourism as represented by many small companies emerges in the era of post-modernism to take advantage of the changing consumer trend, which demands more on special interest tours. From a wider perspective, there is a shift from Fordism, to a more flexible and small but specialised scale of modes of production and consumption (Harvey, 1990). However, scholars like Lickorish (1990) and Ritzer (1998) challenge this notion. Ritzer contends that even in specialised niche market like *Starbucks*, there tends to be a replication of mass production and consumption. Replication of a chain of Starbucks in other towns and countries mirrors the mass production of this branded product.

While many researchers have favoured alternative tourism development in place of mass form of tourism, work written by scholars on alternative development has wide range of issues. Some researchers like, Long and Wall (1995), Din (1997) and Dahles (2001) have explored the tourism entrepreneurship of indigenous population. Din (1997), for example, further argues that the lack of empowerment that has caused locals to be marginalized in Langkawi, Malaysia. (Note 8) Conversely the better equipped locals and outsiders are in the better position to reap the benefit. This gives rise to a question of empowerment in alternative tourism development.

In term of empowerment and the participation of the local community in sustainable tourism planning, there is some literature produced by researchers such as Murphy (1985), Gunn (1994) and Slinger (2000). Slinger, for example, shows that the indigenous Caribs (Note 9) have managed to revive their traditional crafts and culture which, earlier on, been subjected to a process of cultural erosion, encouraged by the government to participate in ecotourism activities. Furthermore, the Caribs have recognised the necessity of protecting the environment is important, particularly when they need raw materials from the forest to produce their handicrafts.

By using the empowerment issue in tourism development researchers such as Kinnaird and Hall (1994) and Apostolopoulos *et al*, (2001) have also further diverged into the new field of gender and tourism. Hitherto the history of tourism, which can be attributed by its birth from industrialisation and its transformation by post-industrialisation, has been mostly described from a 'masculine perspective' (Kinnard and Hall, 1994). Kothari (2002) contends that this view has been at the expense of other dimensions such as feminism. This is imperative given that tourism also takes into account the changing role of gender, such as the 'softening' of tourism attractions, activities, experiences and tastes. The stereotyping of this sexual imagery is further being enhanced by marketing brochures selling tourist destinations and products that use women as the pulling factor. While the male is associated with power and ownership the women are portrayed as passive and being owned (Edensor and Kothari, 1994). At the same time, this has produced a notion that tourism leads to prostitution (Mackie, 1988; Truong, 1990; Hall, 1994). A by-product of mass tourism, this particular form of activities is associated with male tourists who aim to travel to exotic places to indulge in sexual encounters with prostitutes either as a primary or a secondary agenda. Many scholars relate this phenomenon to developing countries. Hall (1994) on the other hand, argues that these activities also persist in developed countries even though it is more exploitative in the former. Conversely, sex-tourism has also evolved into the exploitation of male hosts by female tourists and also the emergence of the so-called gay tourist circuit. Gender relations in the tourism industry also transgress into the labour field. Bagguley (1990), for example, explores the relation of gender in tourism employment where a majority of part-time workers in the hotel industry are women. Nonetheless, Mowforth and Munt (2003) argue that although this new form of tourism has extensively influenced tourism activities in both developed and developing countries, it is arguably a western phenomenon. These authors argue that poor developing countries are still experiencing the effect of conventional mass tourists due to a major increase of such tourist groups from increasingly affluent middle class societies such as in Southeast Asia. However this trend is part of the evolutionary process that is happening in the region.

Having said that, alternative tourism development unlike its predecessors provides not only a novel feature through its bottom-up process of advocating development but also incorporates a holistic notion of development process through its inclusion of indigenous or local participation in its framework.

4. Conclusion

This paper documented factors that underpinned tourism development theory, which are derived from the dominant theories of development; Modernisation, Dependency, Neo-liberalism and Alternative development. It also showed that development was progressive, as experienced in many countries. Development theory provides the suitable conceptual framework and platform to elucidate the processes in tourism development. It shows these processes are not solely the result of unilateral actions. Instead, the nature of tourism development is a highly contested one, which among others, is susceptible to influence from the surrounding milieu, invoked by factors such as politics, economics, culture and the environment. Such processes are made more complex by the fact that the tourism industry is composed of diverse inter-related fields, and as such are broad in scope and depth.

In sum, this paper provides the analytical framework whence strands in tourism development can be explored. It documents the links between development theory and the processes of tourism development, which are characterised by a complex nature of relationships between the four dominant paradigms of development theory and the nature of tourism development. This poses the question of the role of tourism in fulfilling the objectives of economic development.

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Notes

Note 1. Modernisation theory, has its early roots in growth theory, which is grounded in economics. Classical modernisation paradigm represents change as evolutionary processes, from a traditional agricultural rural-based to industry urban-based economy (Schmidt, 1989).

Note 2. Maslow explains the hierarchy needs of a human being based on the principle of relative potency. The hierarchy begins with physical needs, safety and security needs, social needs, ego needs and self-actualisation.

Note 3. This process can be inferred from growth type A of Butler's evolution of tourism development.

Note 4. European Economic Community.

Note 5. Spain became a member of the European Economic Community in 1986.

Note 6. Active travellers are those who visited more than four places and passive travellers are those who stayed at a maximum of four locations.

Note 7. The tour operator is the mediator between the consumers and the suppliers. Its main functions are primarily to reduce information and transaction costs to the consumer and to reduce promotional costs to the supplier. Its ability to make a huge volume of bookings of hotel rooms leaves little space for hotel operators to dictate the price, and as such it profits from the huge number of customers involved in its business transaction. Nonetheless, the huge number results in a lower price gained from the customers.

Note 8. Langkawi is an island resort in Malaysia. Its transformation from a forgotten Malay village to a holiday paradise has caused dramatic effects to the island's socio-culture and environment.

Note 9. Indigenous of Dominica.

Table 1. Characteristic Tendencies: Conventional Mass Tourism and Alternative Tourism

Variable	Conventional Mass Tourism	Alternative Tourism
Accommodations		
Spatial pattern	Coastal, High density	Dispersed, Low density
Scale	Larger-scale, Integrated	Small-scale, Homestyle
Ownership	Foreign, Multi-national	Local, Family, Smallbusiness
Market		
Volume	Higher	Lower
Origin	One dominant market	No dominant market
Segment	Psychocentric-Midcentric	Allocentric-Midcentric
Activities	Water/beach/night life	Nature/Culture
Seasonality	Winter high season	No dominant season
Economy		
Status	Dominant sector	Supplementary sector
Impact	High import sector Repatriated profits	Low import sector Retained profit

Weaver (1991)

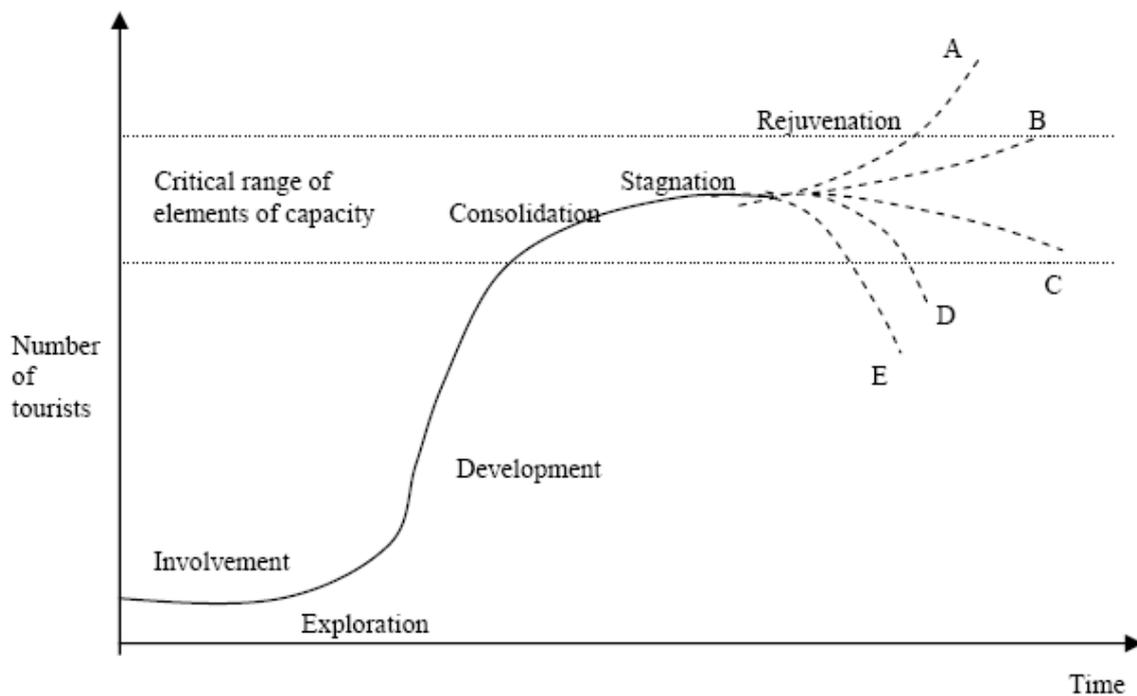


Figure 1. Butler's Destination Life-Cycle

- A – Successful redevelopment leading to renewed growth and expansion.
 - B – Minor modifications which may include the protection of existing resources and price increases.
 - C - Some readjustment to meet existing demand which may include an increase in visitor prices to prevent further growth.
 - D – Over use of resources leading to destination decline largely as a result of competition with other areas.
 - E – War, politics or some other catastrophe halting tourism altogether.
- Source: Butler, 1980.



The Origin of Blue-and-white and the Birth of Symbols

Feng Zhu

Jingdezhen Ceramic Institute

E-mail: szfszfszf@hotmail.com

Jie Shao

School of Art and Design, Nanchang Hangkong University

No.696, Fenghenan Road, Hongjiaozhou, Huanggutun New District, Nanchang 330063, China

Abstract

As the distinguished representation of Chinese industrial art, blue-and-white porcelain shows the soul of Chinese traditional industrial culture. However, to combine porcelain research with symbolism theories is a process of symbolization. Firstly, the researches on blue-and-white porcelain are part of Chinese traditional industrial art and technology engineering researches while symbolism is a modern study evolved from western linguistics in the 20th century, which is closely connected with structure theories and covers almost all human sciences. To establish inner relationship with good logic and clear intention between China and the western world, tradition and modern, and technology and art is first a typical meaning-endowing behavior.

Keywords: Blue-and-white, Symbol, Cobalt, Naming

As a classic representation of Chinese traditional culture symbol, blue-and-white porcelain has indefinite potentials in connotation. From the perspective of language, blue-and-white porcelain's color is described as a "China blue" and its making technique and entire concept give it the name "the treasure of the nation and the glory of porcelains". Even, in the ancient western world, Chinese porcelains were called "China". Those names imply the relationship between blue-and-white porcelain and nation.

Blue-and-white is translucent white reflecting the blue, pure, plain, elegant and in good taste. Its outlook and quality is similar to natural jade and hence is called "man-made jade", which ensures the mutual reflection between blue-and-white porcelain culture and bowler admired by Chinese people. To get to know the full connotations of blue-and-white, it is a must to understand its origin. To understand its origin, the clear definition of blue-and-white must be understood as the first step. Huibing Li from China's Imperia Palace Museum stated in *The Starting Time of Blue-and-white Porcelain* that blue-and-white porcelain includes at least five elements, namely, pure white porcelain body made by firing at high temperature, translucent white glaze, Cobalt Oxide as the original materials for blue and white, lines and decorations drawn by brush on the porcelain, and glazing the porcelain body with lines and decorations and underglazing color fired at high temperature.

The main difference between blue-and-white porcelain with other chinaware is the application of cobalt, which is also the key point of modern definition and researches on porcelain. Generally, the afore mentioned reasons are why the academic area considers the origin of blue-and-white porcelain to be Tang dynasty.

1. The application of cobalt in chinaware before Song dynasty

Cobalt was sometimes used or used as assistant material in chinaware industry before Song dynasty. However, the application of cobalt was not widely used or the application of cobalt was jus to auxiliary position and did not gain sufficient attentions.

As recorded by historical materials, the application of cobalt blue on ware decoration appeared first on flavor bottles in ancient Egypt. Later, in middle Asia, the decoration of chinaware firstly used cobalt blue and glaze materials. China started to communicate technology of low temperature glass with middle Asia area in North Wei period. The unearthed War Period colored glass ball was found to contain cobalt blue.

Hereby, some scholars consider blue-and-white and blue-and-white porcelain as two different concepts. Blue-and-white

as the color materials is defined according to the application of cobalt decoration and has longer history than blue-and-white porcelain. What is more, because cobalt material contained in the blue glass ball unearthed from Changsha War Period Tomb is the same as that of Mid-east area, which indicates that the blue materials might have been introduced to China from East Asia.

To Tang dynasty, the usage of Cobalt Oxide obtained quite clear concept reference, which are low temperature glazed tricolor glazed pottery and high temperature Tang blue-and-white chinaware. The two types are both glazed porcelain. From 2005 to 2007, archeologists discovered North Wei Stove that was used to fire blue porcelain in Baihe Porcelain Stove Site in Gongyi, Henan province and many Tang blue-and-white porcelain and Tang tricolor glazed pottery horse figurines were found. Together with Tang blue-and-white unearthed in Tang Town in Yangzhou, Jiangsu, these are all cases to prove the application of cobalt materials in China's earlier porcelain industry.

What needs our concern is that through the researches on literatures, the exploration of China cobalt mine started from Song dynasty and these cobalt mines are high manganese cobalt mine. Up to now, no mining materials on the cobalt mines before Song dynasty have been discovered, from which it could be known that the Cobalt Oxide used that time was imported.

2. The decoding of the blue-and-white origin and criticizing

There are two ways to determine the origin of blue-and-white. The first one is to determine according to domestic and foreign archeology findings over color materials and unearthed objects. The appearance of blue-and-white wares could be dated back to Tang dynasty. The second one is that the manufacture and style of Mid-Yuan dynasty blue-and-white porcelain had been mature and there are a large amount of objects left. Only this period could be considered as the real start of blue-and-white porcelain.

In addition, in Song dynasty, the porcelain industry was developed. However, because few blue-and-white porcelains were discovered or unearthed and most ones are coarse and dark in color, the research field usually ignores them. From the sense of time, Song blue-and-white is the bridge for Tang and Yuan blue-and-white. From the several cases, it could be known that Song blue-and-white color materials had already used domestic cobalt material and the firing temperature reached nearly 1280 degree centigrade.

In order to have a more direct understanding of these three origin ways, we compare the materials and data. Please refer to table 1.

It is shown through materials that although Tang blue-and-white had used imported power blue as the rough materials, because the firing temperature did not reach 1280 degree centigrade and the blue-and-white all had dispelling phenomenon., which was over-glaze decoration, many scholars do not agree to put Tang blue-and-white as blue-and-white porcelain concept, even some scholars categorize it as pottery.

Compared with Tang blue-and-white, more doubts are on Song blue-and-white. The main reasons are the lack of real objects as the proof. Song porcelain industry was developed and there is a saying that there were five famous stoves in Song dynasty, namely, Jun (or Chai), Ru, Guan, Ge and Ding Stoves. However, it is strange that Song blue-and-white porcelain seems to have never existed. There are only two cases in the earlier papers, that is, 13 North Song blue-and-white porcelain pieces unearthed in 1957 in Jinsha Tower Tomb in Longquan County, Zhejiang Province and one South Song blue-and-white bowl piece unearthed in 1970 from Cuihuang Tower, Shaoxing, Zhejiang Province (by examining its blue-and-white color, it has faint scatter feature and is glaze good color). According to Huibing Li, "according to the scientific concept of blue-and-white porcelain, Tang and Song period did not have blue and white".

In recent years, the following Song dynasty blue-and-white was unearthed. They are: a North Song blue-and-white porcelain bowl unearthed in 2003 in Hujiabao Tomb in Wushan County, Chongqing, a blue-and-white jar with cover which has pure color and bright glaze unearthed in 2004 in the No.4 Tomb of Song Dynasty Tomb Groups in Cangqian Town, Yuhang District, Zhejiang Province, and a blue-and-white pillow part which is yellow like white glaze unearthed in 2005 in Song stratum of Song and Jin Site in Lijiazhuang Village, Gucheng County, Hebei Province. These blue-and-whites were unearthed from different areas and their techniques and qualities vary greatly. From their advantages we could conclude that in Song dynasty, the blue-and-white glaze with power blue as the main coloring material. The cobalt material contains manganese cobalt earth mine which is totally different from the cobalt material imported from west Asia that contains arsenic and does not contain manganese; its firing temperature reached 1270 degree centigrade and there are a few glaze below color wares. Its advantages could basically meet the blue-and-white concept requirements.

The firing of Yuan dynasty Blue-and-white porcelain in terms of porcelain clay, cobalt color, stove temperature and the usage of glaze material complies with the judgment requirement of mature blue-and-white. What is more, its production volume was large and there are many unearthed articles. Many chinaware researchers and scholars determine that Yuan Zhizheng Blue-and-white is the origin of Blue-and-white porcelain manufacture according to "the scientific concept of blue-and-white" because only Yuan blue-and-white could meet all limits and requirements of blue-and-white concept.

To sum up, the starting point of blue-and white should be Yuan blue-and-white, Tang and Song blue-and-white. Or according to researches on color material and technique, it is west Asia or ancient Egypt, which could not be fixed. The author believes that for the reference system, the researches and judgment should add one item that is as the understanding of starting point and birth, the establishment of naming and symbol reference is critical. In all researches on origin, there include the confirmation of the naming as a symbol. Naming and the so said birth usually are twins. Around the birth status, there should be three typical statuses, “gestation stage”, “infancy stage” and “mature stage”. It is debatable to simply judge an object with mature period standards or to measure statue according to scientific concept. A simple example is that human being is “advanced animal that could walk upright, could speak and could use tools”. However, a new born baby could not meet the requirement while we could not deny the fact that the baby is a human being (the human being here is a symbol that has specific reference).

Hence, it is obvious that the most reliable method to determine whether certain object or concept is born is to name and to establish the reference relationship as symbol. When we call someone’s name, only when there is a reference relationship between the name and the person could we have a series of decoding and cognition process such as where he or she is, what he or she is doing or what is wrong with him or her.

Therefore, we might wonder how the specific symbol for blue-and-white comes into existence.

3. The birth of symbol

The simplest method to determine the birth of a symbol is to name. Once the name is fixed, the cognition of the concept has common start point. It could not only be applied to existing real object and also be applied to virtual object. The typical case is that Mendeleev invented Chemical Elements Periodic Table although many elements have not been discovered by then, but people had already had initial understanding of these elements’ features. As virtual real object, the object has been born in concept.

Of course, the naming currently known does not remain unalterable. It has the following change ways:

3.1 Pre-naming

Pre-naming is to predict things that have not come into existence by way of logic deducing and is to give birth to the virtual body and concept of the object, which is nothing more than a concept.

3.2 Nanie name

Nanie name is the name at the earlier stage. Usually, nanie name is used temporarily when the object’s features have not become mature and its mark and reference need further confirmation.

3.3 Name change

Name change is usually become the special attributes of the object are found or the influence of environment changes the object’s functions or reference. Of course, there might be some accidental elements.

3.4 Unearthed name

Due to various historical reasons, some objects would disappear or extinguish. However, after certain period of time, due to the trigger of some elements, the object is cognized again. Usually, the object is named a new name which sometimes might be different from the original name.

In addition, naming will vary with geography, environment, content, usage and receiving groups and other objective elements. What needs special emphasis is that language description is not the only way for naming. It might be a kind of mark, an action, a group of notes, or even a kind of smell. All in all, the apperception forms that are used for communication among groups could all evolve into the naming with symbol features.

With human beings as the case, we make analysis on the birth of blue-and-white porcelain and come into conclusion as is shown in Figure 1.

This paper takes Tang and Song dynasty blue-and-white porcelain as the birth point of blue-and-white porcelain is out of the consideration on its symbol attribute rather than its scientific attribute. The precondition is the independences of its attributes and the establishment of clear reflecting relationship between referee and referrer when blue-and-white porcelain as symbol.

The independence means that the object could be recognized and cognized without depending on other bodies, not as glass, Tang Three Colors, or part of flavor bottles. Its detailed connotation refers to the specific object. It could be compared but could not be replaced. Although the features of blue-and-white porcelain at its earlier stage do not satisfy modern people or even it might not have this name, as a special chinaware technique, it has come into existence.

The same decoding and animadverting way could be applied to other similar questions related to birth, such as football. It is publicly agreed that football originated from the UK although the rules for football that time are not standard and the boy looked like basketball. However, as a group sport, it has set up special reference relationship overtly (anyway

who could assure that we play football the same as today?).

It is the same for symbols. Blue-and-white porcelain was given to birth in China rather than west Asia or other areas. To study blue-and-white porcelain from the perspective of symbol, we must have a good understanding on its origin and manufacturing, including what it is and what it is used for. To put it in other words, it is a question about to produce what for what purpose.

4. The reference meanings with the evolution of blue-and-white porcelain concept

With the constant change of the history, environment and description objects of chinaware manufacture and usage, the reference meanings of blue-and-white porcelain has experienced many changes too. In different context, blue-and-white porcelain has different meaning reference or has different meanings.

For the makers of blue-and-white porcelain, it is a special technique, a way for making living, and a body for spreading creation thoughts and language. What is more, in the process of long term production and technique breakthrough, due to the standard procedures and certain limits deviated from traditional technique and literary quotations, myths, as well as the original art logic combination with imagination, assumption, reasoning and innovation, blue-and-white porcelain must be carrying the spiritual thoughts of porcelain makers in some aspects. It is said that in Jingde Town, porcelain makers has certain totem and symbol procreation worship towards stove gate.

Blue-and-white porcelain is widely used and is the necessity for common people in China in their lives. It is the most basic tool for living. When the poor were deprived of production and living articles for use to the utmost, a blue-and-white porcelain bowl with a gap could bring the most direct courage for living. Blue-and-white porcelain is closely connected with human beings living. In traditional Chinese families, it is normal that they do not have color porcelain and it would be weird if they do not have blue-and-white porcelain. For traditional Chinese, blue-and-white porcelain is their daily friend. They depend on it, are familiar with it and even to be too familiar to forget it. To put it in other words, traditional Chinese are accustomed to be living with blue-and-white porcelains in their daily lives. The usage of blue-and-white has mounted from mastership to some kind of conditioned reflex or natural reflection. Its visual features also become part of Chinese aesthetic habit. Researches show that this kind of group awareness could be brought into gene memory under certain conditions due to mutual accommodation which further slightly changes gene codes. Generally speaking, we believe that the recognition of blue-and-white porcelain has become part of Chinese people's blood and becomes a symbol for Chinese.

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Table 1.

	Color material	Clay and quality	Glazing method	Temperature (Centigrade)	Color effect
Tang Blue-and-white	Low manganese low iron cobalt containing copper (imported from midwestern Asia)	Aluminum clay, coarse, loose, rice gray, poor firing degree	Engobe among glaze, the ground coat is white with yellow, the quality is loose	Sub-high temperature (1200-1250)	Dense and bright and has crystal spots
Song Blue-and-white	Domestic cobalt containing high amount of manganese oxide (from Zhejiang, and Jiangxi)	Coarse, gray white, a few are white and fine in quality	The ground coat is shallow blue, white with yellow or light blue glaze. There are underglazed color and over-glazed color	Underglazed is 1270 and overglazed is between 700-850	Most are dark blue or gray blue. Some are even with black. Color is not bright because of domestic material
Yuan Blue-and-white	Domestic produced high manganese low iron blue materials, imported low manganese high iron blue materials	Porcelain stone plus Gaoling earth, a little gray and yellow, loose	The ground coat includes blue white and egg white, strong sense of milkiness	Between 1250-1300	Domestic material: blue green with gray black. Imported material: blue jade green and bright with rusted iron spots

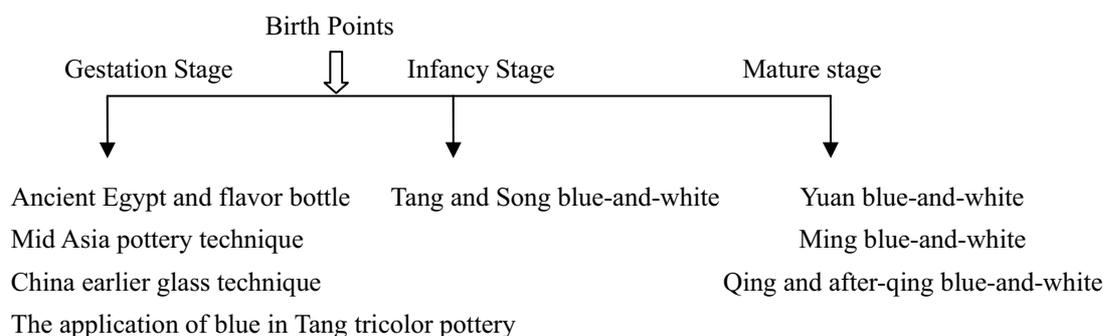


Figure 1.



Chomskyan Linguistics and the Scientific Methodology in Linguistic Study

Fuzhen Si

School of Foreign Languages, Beijing Language and Culture University

No 15, Xueyuan Road, Beijing 100083, China

Tel: 86-10-8238-6732, 86-999-896-2234 E-mail: sifuzhen@blcu.edu.cn

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Abstract

This article is mainly concerned with Chomskyan linguistics, especially its methodology. The author of the paper argues against Shi Yuzhi(2005) and holds that although the relation between theoretical hypotheses and observations is, in some sense, like chickens and eggs and therefore to say that this paradigm is a top-down approach that is bottom-up one is too simple, theoretical hypothesis does function as directive force in scientific research and can be prerequisite to proper and effective experiments and observations. "Observations are meaningless unless we know what regularity they are supposed to illustrate." As for the stability of linguistics theory, the author thinks that linguistics, just like other sciences such as chemistry and physics, in order to prove specific ideas and hypothesis, scientists normally change their experimental programs frequently. What changed in Chomskyan linguistics are the experimental programs, the change from Government and Binding theory to the Minimalist Program as an example; what changed are technical details. And the hypothesis and main point of views never changed in general.

Keywords: Chomskyan linguistics, Scientific methodology, Top-down, Bottom-up

1. Introduction

Shi Yu-zhi(2005) argues against Chomskyan linguistics "by means of scientific methodology", in particular against the methodology of Chomskyan linguistics. He says the "formal method" of Chomskyan linguistics doesn't satisfy the requirements of the applications of scientific methods. He criticizes the "top-down" methodology of Chomskyan linguistics and says the general procedure of scientific study should be "bottom-up". He also gives veiled and rounded criticism about the frequent change of Chomskyan linguistics. Based on these, he concludes, "Chomskyan theory is not successful as a whole", and then introduces his theory of "compositional language faculty". In the discussion that follows, I review Shi Yu-zhi's arguments against Chomskyan linguistics and attempt to show that they not stand up to scrutiny. As readers may find, Shi misrepresents and misunderstands Chomskyan linguistics in many aspects. The theory behind these issues is too broad and is, aside from a brief discussion to the subject, beyond the boundaries of this paper. In what follows, therefore, I limited myself to only some of the main issues. In section 2, I discuss the main methodological issues that Shi raises. In section 3, I address my points on the frequent change of Chomskyan theoretical paradigm. And in section 4, I note that theoretical critiques and theoretical establishment should base on scientific theoretical criteria instead of simple affirmations or negations.

2. General procedure of scientific study: top-down approach versus bottom-up approach

Shi (2005) seems mainly concerned with questions of method. He devotes a full section (section 3) to arguing against the scientific methodology of Chomskyan linguistics. He deems normal process of scientific study begins from study of idiographic phenomenon and then develops a theoretical system by abstracting from the phenomenon step by step. But Chomskyan linguistics, in his view, established a system of abstract rules first, which is a result of analogy between language and mathematics and other things and bears no similarities to language, and then handle the real languages in a procrustean way by using such cut-and-dried formal rules. He thinks that such a hypothetico-deductive method or top-down method is totally wrong, and argues "in order to build up a palace of linguistics, one must follow the way of

'*bottom-up*' to do groundwork." The evidences supporting his points are from history of science. Newton Apple and Mendel Peas are his examples. By saying Newton was enlightened by the fact of apple's falling to the ground so he found the classical mechanics, and Mendel established genetics based on his experience of peas planting, Shi tries to prove that the correct methodology of linguistic study should be *bottom-up*.

First thing I would like to address here is that scientific methodology in linguistic study is a big issue indeed that deserves discussion. However, it is more complicated than what Shi (2005) expects. With regard to the so-called *top-down* approach and *bottom-up* approach, it is hard to say which one is more scientific from a technical perspective. For instance, in the field of computing, it is always the case that Natural Language Processing uses the *top-down* methodology, whereas robotics uses the *bottom-up* approach. Technically, both approaches have their advantages and their disadvantages. The *top-down* approach has the advantage of having all the necessary knowledge already present for the program to use, and thus it can perform relatively high-level tasks such as language processing. The *bottom-up* approach has the advantage of being able to model lower-level human functions, such as image recognition, motor control and learning capabilities. Obviously, Shi (2005) uses the terms of *top-down* and *bottom-up* in a different way and in his terminology, "*top*" refers to theories and hypothesis and "*bottom*" refers to observation and experiment. By using the term of "*top-down*" approach, he criticizes the over-attention to theoretical establishment of Chomskyan linguistics. Notice that critiques of Chomskyan linguistics for over-attention to theoretical works at the expense of data can be heard occasionally. As early as in 1960s, Bolinger (1960) criticized Chomskyan linguistics because of it. Robins (1973) remarked that Chomskyan linguistics represents a "theory-oriented" stage in history of linguistics, rather than a "data oriented" stage. Now Shi (2005) repeats a similar point in a Chinese version. Considering it is still representative, particularly in humanities, I plan to discuss this issue at first.

The following discussions will show that both Shi's points and his evidences constitute misrepresentations. Let us begin from considering his evidence of Newton Apple. Undoubtedly, the story of Newton and the falling apple are the best-known anecdote in the entire history of science. According to W.C.Dampier (1958), the observation and thoughts about universal gravity were guided by Galilean ideas about force. Galileo was the first to notice that the objects are "pulled" towards the center of the earth. But Newton showed this same force, i.e. gravity was responsible for the orbits of the planets in the solar system. Newton determines that gravity controls the motion of objects in the universe. According to a legend, Newton worked in Cambridge University and when the bubonic plague swept through Europe in 1665-66, the University shut down and all faculty and students were sent home. It was here in his garden at Woolsthorpe that the apocryphal story of an apple falling from a tree caused him to speculate the force required to cause this event might be the same force that holds the moon in place around the Earth. Researchers and instructors often take this legend as example for different purposes. Thing is that the story is often misused. By using the story of Newton Apple, Shi tries to prove that observations are more important than theoretical hypotheses and therefore should be prerequisite to theory establishment. Correspondingly, the "scientific procedure" should be going from phenomenal observation to theory abstraction, or in his words, from bottom to top. Obviously, Shi has magnified the significance of observations and experiments and has inverted the relation between theoretical paradigm and experiments. He ignored a fact that Newton's thought of universal gravity based on Galilean hypothesis about "force", instead of on pure observation without hypothesis. Lots of materials from history of science showed that theoretical hypotheses always function as a forerunner of observations. It is the same in the story of Newton Apple. We can imagine that without theoretical deliberation, Newton would not find anything, even if he observed the phenomena that apple falls from tree for hundreds of times. The same is true in genetics. Again, by saying "Genetics started from Mendel's experiences of pea-planting." Shi wants to prove that correct scientific method is to do observation in advance before theoretical works. Setting aside his points again and considering his evidence, it is another misunderstanding actually. The truth of the history of science tells us that the observational activity of pea planting was just a kind of experiment used to prove Mendel's theoretical hypothesis. Mendel's successful experiments of peas hybridization owed to his believe of the laws of segregation and independent assortment and his hypothesis of development of hybrids. And based on his thinking of development of hybrids, he grew many different strains of peas, and did lot of experiments by applying the methods of physics and mathematical methodology to a fundamental biological problem. As Magner (1994) said, it is virtually impossible to believe that such a prodigious amount of effort would have been undertaken without a well-conceived hypothesis and a precise experimental program." Notice that, Mendel's Law was a development of Naudin's idea concerning segregation in hybrids. Both Darwin and Mendel were interested in Naudin's idea, but Darwin did not think that Naudin's hypothesis concerning segregation in hybrids could explain reversion to distant ancestral traits. As a result, while Darwin was puzzling over Naudin's observations, Mendel was conducting a remarkably systematic experimental analysis of this phenomenon in an Augustinian monastery garden. It was the theory Mendel had previously formulated triggered him to design and achieve the famous experiments. It is tempting to imagine that if Mendel had no any idea about the development of hybrids, he would find nothing about the Mendel Law, even if he had rich of experience of peas breeding. In thinking all of these facts, we can conclude now that Shi has exaggerated the sudden enlightenment that allegedly occurred at the moment of observation and ignored the directive force of theoretical expectation and

theoretical establishment and therefore his conclusion is problematic. As a matter of fact, the points exaggerating the significance of observations and experiments can be heard occasionally, even in the field of sciences. Kuhn (1996) called it as “excessively Baconian method”: “Perhaps it is not apparent that a paradigm is prerequisite to the discovery of laws like these. We often hear that they are found by examining measurements undertaken for their own sake and without theoretical commitment. But history offers no support for so excessively Baconian a method.” History of science has showed us that good paradigm will not only suggest which experiments would be worth performing and which would not, but also predict what might happen. “In fact, so general and close is the relation between qualitative paradigm and quantitative law that, since Galileo, such laws have been correctly guessed with the aid of paradigm years before apparatus could be designed for their experimental determination.” (Cf. Kuhn 1996)

Turn now to the methodology of linguistics. The same is true in the field of linguistics. Theoretical expectation has functioned as a directive force in many aspects of contemporary linguistics, particularly in Chomskyan linguistics. Lots of interesting phenomena and laws have been discovered in the light of Chomskyan paradigm. As Newmeyer (1996) said, “Generative grammarians have seen the tasks of description and explanation as wholly complementary. But no description is theory-neutral. The practice, therefore, has been to appeal to language-particular facts only in so far as they bear on a theoretical proposal; theoretical proposals have been judged successful in part to the extent to which they have in turn let to coverage of a wider variety of language-particular facts.” Although the relation between theoretical hypotheses and observations is, in some sense, like chickens and eggs and therefore to say that this paradigm is a top-down approach that is bottom-up one is too simple. Theoretical hypothesis does function as directive force in scientific research and can be prerequisite to proper and effective experiments and observations. “Observations are meaningless unless we know what regularity they are supposed to illustrate.” (Cf. Lees, 1965) Any point exaggerating the function of experiments and observations in scientific methodology is untenable.

3. Stability and Changeability of theoretical paradigm

Notice that to say that theoretical paradigm is prerequisite of observation doesn't mean that experiments and observations are not important. During and after a special paradigm is built up, there are lots of observations and experiments to be undertaken. Naturally, it is impossible that all facts and phenomena meet the theoretical expectation. Accordingly, some details of theoretical construction or techniques of experiments must change and develop in order to explain the facts in a more correct way. So, the frequent change of a theory implies its energy and vigor. Thinking about the change or the development of Chomskyan linguistics, we can say that the scientific observations and experiments, in some extent, have promoted the theoretical paradigm. However, not every one welcomes or could keep up with the change and development. As experts working in the field of Chomskyan linguistics, we are occasionally asked about the frequent change of Chomskyan linguistics. Quite a few of linguists criticize the paradigm because of its changeability. Similarly, at the beginning of his paper, Shi gives veiled and rounded criticism about it as another evidence against Chomskyan linguistics. With an eye to the representative trait, I plan to discuss it in brief.

Again, let us think about the issue of stability and changeability in a general and scientific perspective. As Kuhn(1996) said, we must recognize how limited in both scope and precision a paradigm can be at the time of its first appearance. The philosophical implicature is that every paradigm would change and develop in some respects, from an infantile stage into a mature stage, so that it can bring the facts and theoretical paradigm into closer and closer agreement. Therefore, whether for theory-oriented approach or data-oriented approach, the problem of consistency or agreement between theory and facts or theoretical hypothesis and experiments is always a big issue. History showed us that scientists have made great efforts for it. In the field of science, scientists have created lots of special apparatus and other things, such as Atwood's machine and Foucault's apparatus, to try to “bring nature and theory into closer and closer agreement.” So “That attempt to demonstrate agreement is a second type of normal experimental work, and it is even more obviously dependent than the first upon a paradigm” (Cf. Kuhn, 1996). A natural and positive consequence of the efforts seeking the agreement and consistency between theory and facts might be the development and change of the theory. Considering all above-cited, one may not feel difficult to understand the motivation of the frequent change of Chomskyan linguistics.

In fact, Chomsky (2002) has mentioned his attitude about the change of the theory, "it is a young field, changes are taking place fast, there are lots of unexplained things. I am sure there are new perspectives that we haven't thought of yet. I wouldn't expect, or even hope for, stability." It is a scientific attitude, I think. The reason is that “if there's stability, it means we are not going to get very far, because, in the stage where we are now, there are just too many mysteries. So if the field remains stable, that means there are going to remain mysteries.” (Cf. Chomsky 2002)

Having discussed the motivation of the changeability of Chomskyan paradigm, a natural question ask here is that, are there something stable in Chomskyan linguistics? The answer is YES. Although many things changed and developed, there are some things stable in the paradigm. Macroscopically, the philosophical thinking on the nature of language and mind never changed, the efforts seeking the answer of Plato's problem never changed, the main points of view on the Universal Grammar and the hypothesis of innateness never changed, and the efforts to reduce the variety and

complexity of grammar never changed. Microcosmically, the general methodology and many important principles remain stable. In my understanding, in the field of linguistics, just like other sciences such as chemistry and physics, in order to prove specific ideas and hypothesis, scientists normally change their experimental programs frequently. What changed in Chomskyan linguistics are the experimental programs, the change from Government and Binding theory to the Minimalist Program as an example; what changed are technical details. And the hypothesis and main point of views never changed in general. As Lu Jian-ming (2004) said, "From a surface, it seems that Chomsky's theory changes every year which give some people an misunderstanding that his theory could not be amenable to time. As a matter of fact, his hypothesis and his theoretical aim never changed."

The conclusion is that, we need to understand the stability and changeability of a theoretical paradigm dialectically. What I want to stress here is that Change means theoretical energy in some respects and it is a normal way to do scientific work. Any one boasting that his theoretical system is unchangeable and can be used to get something done once and forever is anti-scientific and therefore unbelievable.

4. How to criticize a theory and how to build up a theory?

Last, I would like to give a very brief remark about the way in which Shi criticizes Chomskyan linguistics. In my opinion, a critique to a theory should base on proper criteria of criticizing, by argumentation, demonstration and reasoning. Chomsky (1965) developed criteria of "observational adequacy, descriptive adequacy and explanatory adequacy". Now researchers still use it in different theoretical levels. Going through whole paper of Shi (2005), we found that in spite of his title is "The philosophical foundations and defects of Chomskyan linguistics and the introduction to Compositional Language Faculty", he rarely mentions the works that reflect Chomskyan philosophy. Instead, the paper is full of conclusive affirmations and negations without demonstration, reasoning. Return to his theory of "Compositional Language Faculty", on the other hand, except for a list of general psychological knowledge that every people know, he doesn't provide us any scientific reasoning, demonstration and argumentation. Based on all above-illustrated, one can easily find that Shi's argumentations are lack of powerful theoretical basis and therefore his conclusion about "Chomskyan theory is not successful as a whole" is weak and untenable. And his assumption of "Compositional Language Faculty" is far from mature.

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Exploitative Microfinance Interest Rates

Subrata Kumar Mitra

Professor, Institute of Management Technology

35 Km Milestone, Katol Road

Nagpur – 441 502, India

Tel: 91-712-280-5000 E-mail: skmitra@imtnag.ac.in

Abstract

The field of microfinance emerged in the developing world as a vehicle to provide financial services to poor segments of population is gradually being seen as a profitable business opportunity. In the initial stages of development, these activities were perceived to be done with a service agenda. As the micro finance institutions (MFIs) began to mature, they started facing performance dilemma, and focus is gradually shifted towards profitability.

In order to improve profitability of MFI, interest rate on loan is kept at a very high level and additional costs in the form of margin money, compulsory savings and insurance premium are being imposed to borrowers. Majority of MFI borrowers are poor and illiterate and they are not expected to understand and realise various financial jargons used by MFIs and their effective cost.

To help poor to understand true cost of loan MFI should disclose effective interest rate to the borrowers. Hiding effective interest rate to poor and illiterate borrowers by using “creative” accounting practices is highly unethical. Many MFIs simply state that they charge only 15% flat rate of interest. But the effective interest rate including processing fee, compulsory savings, etc goes well over 100% per annum.

Keywords: Microfinance institutions, Interest rate

JEL Classification:

G21 - Banks; Other Depository Institutions; Micro Finance Institutions; Mortgages

E43 - Determination of Interest Rates; Term Structure of Interest Rates

1. Introduction

Microfinance is defined as the provision of credit, savings, and financial services to very poor people. Providing these services to very poor households offers opportunities for the poor to create, own, and accumulate assets and to smooth consumption. (CGAP 1998). In absence of banking facility, the poor often resorts money lending from relatives and acquaintances but when such sources are not available they approach local moneylenders. Moneylenders can and do provide very flexible and fast service tailor-made to the needs of the borrowers but they are often accused to charge exorbitant interest rates. Here the field of microfinance comes to the help of the poor. The microfinance institutions (MFIs) are supposed to meet financial requirements of poor at a low cost. The area of microfinance was pioneered by specialized NGOs and commercial banks such as Grameen Bank of Bangladesh headed by Mohammad Yunus among others.

Microfinance has travelled a long journey and has been providing microfinance loans exceeding several billions of dollars. But the original idea of service to the poor is getting replaced by profiteering concepts like IPO, ROE, Securitisation, etc. Muhammad Yunus himself has expressed his dissatisfaction for the growing commercialisation of microfinance. In an interview with CNNMoney.Com, Yunus criticised those involved with for-profit microfinance by saying that “poor people should not be considered an opportunity to make profit.” He believes that the profit maximisation motive of commercial microfinance is a distortion and Microfinance should avoid capital markets to retain it’s not for profit ideology. MFI to remain viable may charge cost of borrowing and few extra percentages just to cover the operating expenses. Those who charge more than 15% over cost of funds have “just left the micro-credit area and joined the loan-shark area”.

Grameen Bank of Bangladesh charges an annual interest rate of 20% and made a small profit in the year 2007, but here the profits eventually benefits the poor as 90% shares of the bank are owned by the borrowers and remaining 10% lies with Government.

Conceiving it as a business opportunity, microfinance has started attracting investors focused solely on financial returns. Large investment firms like, Citigroup, Morgan Stanley, Merrill Lynch, Deutsche Bank, ICICI Bank, etc. have started investing in microfinance due to its stable returns, low default rates, and portfolio diversification opportunity.

The high interest rates charged by for profit microfinance institutions are drawing attention of policy makers throughout the world. Several concerns have been raised, such as, why do institutions that set out to help the poor charge such high rates and earns profit from poor. Should poor people have to pay for high MFI costs incurred by MFIs due to their inefficiencies? According to The Consultative Group to Assist the Poorest (CGAP), Governments of about 40 developing countries have fixed some kind of mandatory interest rate ceilings to address this kind of concern (CGAP 2004a, CGAP 2004b).

2. Justification of commercialisation of microfinance

The provision of financial services to the poor is obviously a difficult task because the poor usually live in remote and inaccessible places without basic infrastructure. It is not only difficult to make personal contact with these remotely located poor but such contacts are also expensive. It is well argued in micro-finance literature that unless the cost of microfinance operation is passed on to the borrowers, the institutions will fail to be sustainable.

An Asian Development Bank note justifies charging high interest rates on account of higher cost of services incurred by the MFI. It argues that interest charged on loans is the main source of income for these institutions and, because they incur huge costs, the rates are correspondingly high (Fernando, 2006).

Following arguments are generally put forth in support of high interest rates (CGAP 2002a, CGAP 2002b, Fernando 2006, Dehejia et al 2005)

- Interest rates charged by money lenders are overwhelmingly higher than MFI rates. Money lenders charge an interest rate of over 10% per month. A standard money lending loan in the Philippines is the “5/6 loan” – for every five persons borrowed in the morning, six must be repaid in the evening. This amounts to a daily interest rate of 20%.
- Poor borrowers/entrepreneur can generate greater benefit from additional units of capital than a highly capitalised business can. A vegetable vendor in India can buy vegetables from a wholesaler at Rs.2 per kg and sell the same to retail customers at Rs.12 per kg, earning 500% income a day!
- For a poor micro entrepreneur, the cost of micro credit loan represents a small portion of her total business cost. A Rs.1000 micro loan repayable in 3 months with 6% interest per month, calculated on a declining balance, costs a client only Rs.122, which is a very tiny amount as a percentage of her total costs.
- When women SHG members lend to each other, they can lend on whatever terms they wish. When such arrangement prevails, the women commonly charge each other an interest rate that is substantially higher than what MFI charges to its borrowers.
- MFIs charging very high interest rates almost always find that demand for loans outstrips their ability to supply it. Many poor people take repeated loans. This demonstrates that loans allow them to earn more than the interest they have to pay.
- There is a vast amount of literature on the Internet consisting mainly of conference proceedings and discussion groups. It advocates charging market based (high) interest rate. There are no instances that a microfinance programme ran into trouble by driving away clients with interest rates that are too high.
- Range of investment opportunity available to rural poor is endless. When a poor woman receives Rs.1000/- loan, she will look through her range of investment possibilities and spend her money on the one that offers highest rate of return (for example, vegetable selling can yield 500% returns in a day). A large corporate house cannot pay as high an interest rate as a poor micro entrepreneur, because they already have a lot of capital and have already “used up” most of the profitable investment options available to it. A micro entrepreneur on the other hand can derive greater relative benefit from additional units of capital, simply because she has so little capital. So she can pay a higher interest rate and still come out ahead.
- The access to finance to poor is a much more important issue than the cost of finance. When a poor women needs Rs. 1000/- for treatment of her ailing son, the timely availability of credit alone is important for her, not the interest rate.
- When poor are willing to pay high interest rates to MFI loan, why talk about high interest rates? Any cap on interest rates is likely to be detrimental for the growth of MFI and neither will it be in the interest of the poor.

3. Should there be any interest cap?

High interest rates charged by MFIs have attracted criticism from government and opposition leaders in many countries including India. In March 2006 district authorities closed down about 50 branches of two major MFIs in Krishna district of Andhra Pradesh (India). Some borrowers complained to the district authorities that these MFIs are charging “usurious interest rate” from the poor borrowers and also using “forced loan recovery” practices. The crisis has attracted the attention of both local and national media. The local media, especially, carried many stories which were highly critical of the role played by MFIs.

The issue also came up before the State Level Bankers’ Committee (SLBC) meet held on March 17, 2006. The chief minister (CM) of AP who chaired the meet took a tough stand against the MFIs by alleging that they are exploiting the poor by charging exorbitant rates of interest and adopting unethical means of loan recovery. He expressed the view, “MFIs were turning out to be worse than moneylenders by charging interest rates in excess of 20 per cent” (*The Hindu*, March 18, 2006). Further to the development, there was even an allegation that 10 borrowers of MFIs in Krishna district committed suicide because they were unable to repay the loans taken from MFIs. There were three major allegations against the MFIs that came up during the crisis (Shylendra 2006).

- MFIs are charging exorbitant rates of interest. Not only that MFIs charge absolutely high interest rate (upwards of 20 per cent), but their practices like forced savings, applying a flat rate method and adding service and other charges, over and above the annual interest rate, further exacerbate the cost. This is leading to an overall high cost of borrowing for the poor, making MFIs’ rates look almost usurious. Further, MFIs lack transparency with regard to their interest rate practices, which is helping them to transfer various costs on to gullible borrowers;
- MFIs are resorting to unethical ways of recovering loans by confiscating title deeds, using intimidation and abusive language, and combining multiple products like savings, insurance and loan to ensure prompt recovery; and
- MFIs are aggressively poaching from government and banks to capture their borrowers. They are luring the members of government supported self Help Groups by liberally financing them, leading to multiple financing.

Because of such practices, it is argued that MFIs are causing a huge burden on the poor, leading to a vicious cycle of debt, poverty and even deaths (Kumar 2006). Though there is no clear evidence to prove these allegations against the MFIs in AP; there is however some evidence from studies carried out elsewhere, which indicate that these allegations are to some extent true about MFIs in general (Mitra 2005; Rhyne 2001; Shylendra 2006; Sinha and Matin 1998).

4. True Cost of MFI Loan

The actual interest that a borrower pays to MFI is determined not only by the stated interest rate but also the method used to calculate repayment instalment. Many MFI explain to the borrower that they charge a mere 15% to 20% flat rate of interest per annum. It is common practice of MFI to hide actual interest cost by various creative accounting practices. Effective interest rates are many times higher than the stated interest rate on account of following:

- Use of flat rates of interest
- Collection of security deposit (deducted from the loan amount)
- Compulsory savings collected with loan instalments
- Charging insurance premium for the loan
- High penalty for missing a repayment schedule, etc.

4.1 Use of Flat Rates of Interest

When flat rate of interest method is used, the interest is charged on the original face value of loan for the entire period of loan. Though the balance loan amount of the micro finance borrower reduces with each weekly instalment payment, the borrowers are made to pay interest on full sanctioned amount. Let us have a look on how much interest is charged by an MFI with a stated 15% flat rate of interest per annum. Consider a simple example of a Rs. 3000/- loan given at a flat rate of 15% interest per annum repayable at 12 monthly instalments at the end of each month. The monthly repayment schedule is given in Table-1 and Table-2.

It can be seen from the table-2 that principal outstanding at the beginning of month-1 is Rs.3000 and interest for the month is Rs. 37.50. Thus the annualised rate of interest for month-1 works out to $\frac{Rs.37.50}{Rs.3000} \times 12(\text{months / year}) = 15\%$

per annum. As the part of the principal is repaid in each month, the loan outstanding reduces after each instalment. For example in month-2, the principal outstanding is Rs 2750 (as Rs.250 is repaid at the end of month-1). The annualised rate of interest for month-2 works out to $\frac{Rs.37.50}{Rs.2750} \times 12 = 16\%$ per annum.

If we compare interest rate paid in the 12th month, when principal outstanding is only Rs.250, the annualised rate of interest for month-12 works out to $\frac{Rs.37.50}{Rs.250} \times 12 = 180\%$ per annum.

Thus for a stated interest rate of only 15% per annum flat rate, the borrower pay effective interest of 15% to 180% per annum. The word “Flat” is the key word and many microfinance borrowers being illiterate do not understand the dubious meaning of flat rate of interest that they are paying.

The effective rate of interest for the above repayment schedule works out using the following financial argument

$$pv * (1 + r)^n + i \left(\frac{(1 + r)^n - 1}{r} \right) + fv = 0 \quad \dots \text{(Equation-1)}$$

Where

- r = effective interest rate per period
- pv = the net amount given to borrower.
- i = actual amount repaid in each periodical instalment.
- n = total number of repayment periods
- fv = amount paid to the client at the end of the loan period. This is return of security deposit with interest or return of the accumulated savings.

The effective interest rate (r) of the repayment table-2 works out to 2.22% per month. On a monthly compounded basis the annual rate of interest works out to $(1 + 0.0222)^{12} - 1 = 0.3012$ or 30.12% per annum.

4.2 Collection of Security Deposit

Though MFIs are not allowed to accept savings from the public, many MFIs adopt dubious ways to deduct savings from the loan disbursement in various names like Security Deposit, Margin money, etc. This compulsory deduction can range anything from 0% to 20% at the discretion of MFI. Lenders propagate that this deduction is to promote savings habit of the poor and the amount is returned with interest at the end of the loan period.

Let us find out the interest rate applicable to poor micro borrower when such security deposit is compulsorily deducted. We will rework the previous example with following changes.

- Loan sanctioned : Rs. 3000
- Security Deposit : 20% of loan = Rs. 600
- Actual amount paid to the lender at the time of loan disbursement : Rs. 2400
- Interest on security deposit : 5%
- Security deposit refunded with 5% interest after one year : Rs. 630
- Other loan terms remain unchanged i.e. the entire loan is to be repaid by 12 monthly instalments of Rs. 287.50 per month.

The effective rate of interest of the above loan scheduled can be estimated using following parameter values in equation-1.

- pv = Rs. 2400 (the net amount after deduction of security deposit)
- i = Rs. 287.50 per month.
- n = 12
- fv = RS. 630 (security deposit refunded with interest)

The value of effective interest rate per month with security deposit is 3.17% per month, and works out to $(1 + 0.0317)^{12} - 1 = 0.4539$ or 45.39% per annum.

4.3 Compulsory Savings Collected with Loan Instalments

Many MFIs strongly advocate need for providing regular savings services to microfinance borrowers. So that poor people's tiny savings grow over time, and they may not depend on loan in future. While the stated intention is undoubtedly honest, the financial implication in terms of profitability to the MFI is tremendous. Again consider the

previous example, wherein the client is required to save a tiny amount of Rs. 100/- per month to be paid at the time of making loan repayments. The savings will be refunded to the clients with 5% interest at the end of the loan period. The

savings of Rs. 100 per month @ 5% per annum will grow to $100 * \left[\left(1 + \left(\frac{.05}{12} \right) \right)^{12} - 1 \right] / \left(\frac{.05}{12} \right) = \text{Rs. } 1227.89$ and will

be refunded to the client after the end of the year. The equation-1 can again be used to calculate effective rate of interest with following parameter values.

- $pv = \text{Rs. } 2400$ (the net amount after deduction of security deposit)
- $i = \text{Rs. } 287.50$ per month.
- $n = 12$
- $fv = \text{Rs. } 630 + \text{Rs. } 1227.89 = \text{Rs. } 1857.89$ (security deposit and monthly savings refunded with interest)

The effective interest using the equation-1 now increases to 5% per month and 80% per annum. When savings are made an integral component of the loan, the effective interest rate shoots up. This is primarily due to the reason that the microfinance borrowers are paid a mere 5% interest per annum for their savings, whereas for loan they are charged a very high effective interest rate. A borrower who is forced to save gets a very little cash in hand after deduction of security deposit from the loan disbursement but continues to pay high interest for the entire loan amount. The savings interest is a minuscule amount in comparison to the interest she pays for lending.

5. A real case where effective interest cost is very high

In the example given above, monthly repayments were illustrated but to make things worse, instalments are collected on weekly basis. Let us calculate effective interest rate of an actual product (the product is similar to products offered by a NGO MFI known to the author).

5.1 The Loan

- First loan is between Rs.1000 to Rs.5000
- Interest rate is 17.5% per annum (flat)
- Repayment in weekly instalments; for 47 weeks.
- For a Rs.1000 loan interest for the year is 17.5% of 1000 = 175. The borrower has to refund the same in 47 instalments of $175/47 = \text{Rs. } 25$ per week.

5.2 Collateral

Since loans are given without any collateral, 10% of the loan is deducted upfront as margin money/security deposit which is refunded with 5% interest at the end of year.

5.3 Savings

Every member deposits Rs.10/- per week and can withdraw after one year with 5% interest on savings.

5.4 Insurance

To mitigate loan loss due to the death of borrowers an insurance premium of 2% is charged, which is deducted upfront from the loan amount.

5.5 Cash Flow

The cash flow of the above scheme is as under:

- Loan sanctioned Rs. 1000
- Deduction 10% security deposit-Rs. 100
- 2% insurance -Rs. 20
- Net amount paid to borrower Rs. 880
- Repayment; 47 weeks Rs. 25 per week
- Savings; 47 weeks Rs. 10 per week

Amount paid after 47 weeks is as follows:

- Refund of Security Deposit 5% interest = $100 \left(1 + 0.05 \left(\frac{47}{52} \right) \right) = \text{Rs. } 104.52$

- Refund of weekly savings of Rs.10/- for 47 weeks with 5% interest p.a.= $10 * \left[\left(1 + \left(\frac{.05}{52} \right) \right)^{47} - 1 \right] / \left(\frac{.05}{52} \right) = \text{Rs. } 480.55$

5.6 Effective cost of loan

The effective cost of interest can be obtained by using following parameter values in equation-1.

- $pv = \text{Rs.}880$ (net amount paid to the borrower)
- $i = \text{Rs.}35$ (Rs.25 for loan & Rs.10 for savings)
- $n = 47$ (week)
- $fv = \text{Rs.}585.06$ (Rs.104.52 for security deposit + Rs.480.55 for savings)

The weekly effective rate of interest works out to 1.534% and compounded on weekly basis for 52 weeks (1 year), the annualised rate goes up to 120.67%. The situation become worse when security deposit is deducted @ 20% of loan amount at the time of disbursement and in such cases annualised effective rate of interest goes up to 193.8% per annum (all in the name of savings need for the poor!).

6. Should such high rates be justified?

Objective of microfinance lending should be to genuinely help the poor to come out of poverty and not to make money by lending them at exorbitantly high interest rate. Poor has very little choice and hence demand for loan at high rate will remain; which money lenders were extending from time immemorial. Instead of comparing interest rate offered by money lender, they should compare interest rate of micro lending offered by formal institution like Bank-SHG linkage schemes.

Majority of MFI borrowers are poor and illiterate women, they are not expected to understand and realise various financial jargons and their effective cost. Fancy terms like, membership fees, service charges, flat rate of interest, margin money, savings which earn interest, insurance etc are quite confusing to many of them (if not all). Lending terms should therefore be kept simple for them to understand.

7. Conclusion

The cost of microfinance loan to poor borrowers in India varies anything between 12% p.a. to more than 120% p.a. depending on nature of MFIs that provide service to the poor. MFI should disclose effective interest rate to the borrowers. Hiding effective interest rate to poor and illiterate borrowers by using "creative" accounting practices is highly unethical. Many MFIs simply state that they charge only 15% flat rate of interest. But the effective interest rate including processing fee, compulsory savings, etc goes well over 100% p.a. As a result some of these micro lending outfits breakeven within 6-9 months operations and thereafter their motive are only to earn profits!

Microfinance must not deviate from its original objective of extending a helping hand to the poor and must not be viewed as an opportunity to make money from poor borrowers.

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Table 1. Monthly Instalments

	Total in the Year	Per Month
Principal	Rs. 3000	$(3000/12) = \text{Rs. } 250$
Interest %15 (Flat)	$(0.15*3000)= \text{Rs. } 450$	$(450/12) = \text{Rs } 37.50$
Total (Principal+Interest)	Rs. 3450	Rs 287.50

Table 2. The repayment table for the loan

Month	Principal outstanding at the beginning	Principal repaid per instalment	Interest paid in each instalment	Total amount paid in each instalment	Principal outstanding at the end	Interest as % of principal outstanding
1	3000	250	37.5	287.5	2750	15%
2	2750	250	37.5	287.5	2500	16%
3	2500	250	37.5	287.5	2250	18%
4	2250	250	37.5	287.5	2000	20%
5	2000	250	37.5	287.5	1750	23%
6	1750	250	37.5	287.5	1500	26%
7	1500	250	37.5	287.5	1250	30%
8	1250	250	37.5	287.5	1000	36%
9	1000	250	37.5	287.5	750	45%
10	750	250	37.5	287.5	500	60%
11	500	250	37.5	287.5	250	90%
12	250	250	37.5	287.5	0	180%



The VAT Reform and Its Financial Impacts

Weimo Huang

School of Management

Xi'an University of Science and Technology

Xi'an 710054, China

E-mail: hwm740430@sina.com

Abstract

Since January 1st 2009, all regions and industries in China have implemented the VAT reform. Therefore, in this article, the author makes an analysis on the background of the VAT reform based on a review of the types of VAT and its reform practice. He also points out impact of the overall implementation of VAT on corporate finance.

Keywords: VAT reform, Production VAT, Consumption VAT, Financial impact

In November 11 2008, the State Council Standing Committee Conference decided that, VAT reform would be carried out in all regions and industries all around the country from January 1st 2009 in order to enlarge domestic demands, to reduce tax burden of corporate equipment investment, to promote technical progress, adjustment of industrial structure and to transform economic growth mode. This has been a single tax reform with the largest degree of tax abatement in the history of our country, which will bring significant influences to the corporate finance.

1. Types of VAT and review of its reform practice

VAT refers to a turnover tax levied on value added, which is realized in the process of producing and selling goods, or providing processing, repairs and replacement service. According to deduction of purchased permanent assets, VAT can be classified into three types, namely, production, consumption and income. In consumption VAT, in calculation of value added, it is allowed to completely deduct once withholdings on VAT contained in purchase of permanent assets. That is, the balance is regarded as a tax base, in which the monetary amount of consumed commodity and service is subtracted from a taxpayer's sales profit, and then the current purchased permanent asset amount is subtracted. In production VAT, in calculation of value added, it is not allowed to deduct withholdings on VAT contained in purchase of permanent assets. However, the balance is regarded as a tax base, in which the monetary amount of consumed commodity and service is subtracted from a taxpayer's sales profit. In income VAT, in calculation of value added, it is allowed to deduct respectively withholdings on VAT contained in purchase of permanent assets according to depreciation accrued currently. That is, the tax base of VAT is the balance in which the monetary amount of consumed commodity and service and permanent asset depreciation are subtracted from a taxpayer's sales profit. Currently, a majority of countries in the world adopt consumption VAT, while only several countries like China and Indonesia adopt production VAT.

1.1 Implementation phase of production VAT

In the tax system reform in 1994, China selected production VAT, which couldn't go without the productivity level and economic development environment of that time. On one hand, this was due to consideration of financial revenues; on the other hand, this was for inhibition of investment inflation. However, with further development of market economy, changes took place in the macro-economy in China, and deflation and insufficient market demand happened, so investment initiation was the top priority. Although we adopted positive financial policies, and monetary policies, and stimulate private investment by increasing national debt and governmental investment, yet the effect was not obvious. To deal with insufficient demand and deflation, merely the above two positive policies were not enough without cooperation of positive tax policies. Many issues revealed in the current production VAT indicated, reform on the current VAT is an urgent need of the economic development of China.

1.2 Coexistence of production VAT and consumption VAT --- experimental period of VAT reform

Due to double taxation in production VAT, and the fact that it goes against technical reform of enterprises, and,

meanwhile, a lot of traditional enterprises were faced with issues of ageing equipment and heavy social burden in the process of market reform, Party's Sixteenth National Congress and the Third Plenary Session of its Sixteenth Central Committee made the decision of "transition of VAT from production to consumption, and including equipment investment in the scope of VAT deduction", which confirmed direction of China's VAT reform. Since July 1st 2004, the government implemented experimental work of VAT reform in 8 industries in Northeastern old industrial bases. During that year, rate of increase of GDP in the three provinces in Northeast was 2.8% higher than that the average national level. Since July 1st 2007, China continued to implement experimental work of enlarging VAT deduction scope in 26 old industrial cities and over 12,000 enterprises in six central provinces after experimental work of VAT reform in Northeast. By the end of 2007, totally an amount of ¥ 3.45 billion was refunded for these enterprises. Furthermore, in the 2007 government work report, working out of comprehensive implementation of VAT reform plans and measures of was definitely listed into work plan of the central government.

1.3 Comprehensive implementation phase of consumption VAT

Although experimental work of VAT reform was implemented in part of industries in part of regions, which could push forward growing up of these regions, this was only preference to part of taxpayers. If this situation continued, it would inevitably bring about unequal competition among different taxpayers from other areas, which would damage interests of a majority of taxpayers. In order to avoid negative effect of the reform, and to protect rights of equal taxing among taxpayers, The State Council Standing Committee Conference decided to implement VAT reform in all regions and industries around the country from January 1st 2009. The major content of the reform is as follows: to allow enterprises to deduct VAT contained in newly purchased equipment; to cancel exemption of VAT on imported equipment and drawback of VAT on purchase of home equipment by foreign-funded enterprises; to uniformly reduce VAT percentage charges of a small number of taxpayers to 3%, and to recover VAT rate of minerals back to 17%. It is calculated that, after the reform, revenue of VAT in the next year will be reduced by approximately ¥ 120 billion.

2. Analysis of background of VAT reform

2.1 Financial crisis provides opportunities for VAT reform

Currently, financial crisis aroused by American subprime mortgage crisis has spread to Europe, Asia and Latin America. There appears a decelerating trend in the global economic growth, and the economic recessionary phenomenon even happens in some countries. Financial crisis is bringing about significantly unfavorable impacts on the real economy. Under such a circumstance, the timely VAT reform will play a quite important role in strengthening developmental potentials of an enterprise, improving corporate competition and risk resistance capacity, and overcoming unfavorable influences of international financial crisis on Chinese economy. It is calculated that, the finance of this reform exceeds ¥ 120 billion, which has had the greatest degree of tax deduction of single tax system reform in the Chinese history. It is believed that, coming out of this policy will be an anxio-action to the lasting, stable and fast development of Chinese economy.

2.2 Speedup of economy slides backward impels overall progress of VAT reform

The current situation of slowdown of the economic speedup creates conditions for the overall unfolding of VAT reform. In the first half of 2008, the GDP of China increased 10.4% over the same period of the previous year, and the speed increasing ratio drops a percentage of 1.8. Due to several factors, SMEs are faced with difficulties of operation, and 67,000 SMEs around the whole country went bankrupt in the first half year. The VAT reform has also objectively had the effect of reducing burden of taxation by an enterprise, which can enlarge space for profits of the enterprise, elevating market competition of the enterprise, and helping more enterprises pull through, favorable for the realization of macro-control targets.

2.3 Large surplus of the finance creates reforming conditions for VAT reform

In the first seven months of 2008, it was accumulated that the national financial revenue reached ¥ 4088,171 billion, which increased 30.5% over the same period of the previous year. According to experts, there would be no problems for the annual financial revenue to exceed ¥ 6000 billion. In the first half of 2008, the national budget revenue reached ¥ 3480,819 billion, which increased 33.27% over the same period of the previous year, while the national budget expense reached ¥ 2288,202 billion, which increased 27.69% over the same period of the previous year. And the surplus reached ¥ 1192,617 billion. According to the Ministry of Finance, the VAT reform will cause the finance to reduce by ¥ 150 billion to 200 billion, and the finance will suffer from a great pressure, while a relatively large surplus exists in the current finance, which creates conditions from another aspect for the VAT reform.

2.4 VAT reform experimental units provide precious experiences for the overall reform

The experimental units of VAT reform assume heavy responsibilities of supporting Northeastern development, rise of central China and exploring and perfecting VAT system, and the final target is to accumulate experiences for further promotion of VAT reform in China, and construction of standardized consumption VAT reform. Meanwhile, the target

includes the effort to transform VAT reform from a preferential policy into a system arrangement, so as to reflect the neutral principle of taxation and to really realize fair taxation of taxpayers. Throughout all domestic and oversea VAT practices, only implementation of a consumption VAT with total depreciation and elimination of double taxation can really reflect fairness and neutrality of VAT, and protect rights of taxpayers. With over four years' experiments, we have already seen some issues of consumption VAT for improving capacity of an enterprise to make profit, for stimulating an enterprise to make full use of financial leverage effect and for improving international competition of a product, etc. Therefore, this reform has made regulations on fixed assets in the taxation incidence of VAT, only limited to machines, machinery, transportation vehicles, and other real estates related with production and operation, such as equipment, tools, implements, houses, and buildings, which can't be counted within the deduction scope of VAT.

3. Impacts of VAT reform on corporate finance

Impacts of VAT reform on corporate finance are various, and in the following, the author will only make specific analysis in its impacts on financial leverage effect and the related earnings per share and break-even analysis.

3.1 Impacts of VAT reform on financial leverage effect

Financial leverage effect is caused by existence of permanent expense. While one certain financial variable fluctuates with a relatively small amplitude, the other variable will fluctuate with a relatively large amplitude. Financial leverage effect mainly includes operating leverage and financial leverage.

3.1.1 Impact of VAT reform on operating leverage effect

Operating leverage refers to application of fixed cost in operating costs in operating activities by an enterprise. Fixed cost refers to the cost which remains unchanged under the influence of harvest fluctuation in a certain period and with a certain production capacity, including depreciation of fixed cost. Role of operating leverage can directly influence earnings before interest and tax of an enterprise. An enterprise can reduce fixed cost of the turnover of the enterprise through enlarging business sales, and increase operating profit of the enterprise, which is the purpose of operating leverage. The enterprise usually uses the degree of operating leverage (DOL) to express degree of operating leverage, which refers to proportion of its operating profit fluctuation ratio to the turnover fluctuation ratio.

$$DOL = \frac{\Delta EBIT / EBIT}{\Delta S / S} = \frac{S - VC}{S - VC - F}$$

In the above formula, EBIT stands for earnings before interest and tax, $\Delta EBIT$ for fluctuation ratio of earnings before interest and tax, S for sales income and ΔS for fluctuation ratio of sales income.

Under the circumstance in which other factors remain unchanged, the VAT reform might cause fluctuation of fixed cost, and further fluctuation of degree of operating leverage.

Supposing that merely handling way of withholdings on VAT of fixed assets is different before and after the VAT reform, and handling way of other financial indices remain unchanged. Let's suppose that the regular sales income of an enterprise is y, sale price per unit is p, variable cost is VC, variable cost per unit is b, fixed cost in production VAT is F_1 , (including the depreciation cost D_1 in fixed assets), fixed cost in consumption VAT is F_2 , (including the depreciation cost D_2 in fixed assets), and suppose that other fixed cost remain unchanged except depreciation cost, then if $D_1 > D_2$, and $F_1 > F_2$. And the change of degree of operating leverage before and after VAT reform is as follows:

$$DOL_1 \div DOL_2 = \frac{S - VC}{S - VC - F_1} \div \frac{S - VC}{S - VC - F_2} = \frac{S - VC - F_2}{S - VC - F_1} > 1$$

This proves that, after the VAT reform, the degree of operating leverage reduces, which means that beneficial space for an enterprise by means of operating leverage becomes small, but at the same time, the operating risk reduces.

3.1.2 Impact of VAT reform on financial leverage effect

Financial leverage refers to application of debt capital by an enterprise in financial activities. In the case when capital structure is fixed, debt capital is usually fixed, and can be deducted before the income tax. Therefore, when rate of return on investment is larger than debt capital, an enterprise can make use of financial leverage effect to bring extra gains to stockholders. Degree of application of financial leverage in corporate computation is generally expressed by degree of financial leverage (DFL), which refers to ratio between fluctuation ratio of earnings after tax and that of earnings before tax.

$$DFL = \frac{\Delta EAT / EAT}{\Delta EBIT / EBIT} = \frac{EBIT}{EBIT - I}$$

EAT refers to earnings after tax, ΔEAT refers to fluctuation ratio of earnings after tax, while I refers to annual amount of interests of the debt.

Under the circumstance when other factors remain unchanged, fluctuation of the fixed capital might be caused after the

VAT reform, which, in turn, will cause fluctuation of degree of financial leverage.

$EBIT_1 = S - VC - F_1$ in the production VAT, and $EBIT_2 = S - VC - F_2$ in the consumption VAT, from which we can get $EBIT_2 - EBIT_1 = F_1 - F_2 = D_1 - D_2 > 0$, then change of financial leverage degree before and after the VAT reform is as follows:

$$DFL_1 - DFL_2 = \frac{EBIT_1}{EBIT_1 - I} - \frac{EBIT_2}{EBIT_2 - I} = \frac{D_1 - D_2}{(EBIT_1 - I)(EBIT_2 - I)} > 0$$

This proves that, after the VAT reform, the degree of financial leverage reduces, which means that, space for an enterprise to make profit by means of financial leverage lessens, and, meanwhile, the financial risk it might assume also reduces accordingly.

3.2 Impact of VAT reform on earnings per share

Change of operating leverage might have impact on EBIT, which in turn, might impact earnings per share. Therefore, VAT reform will necessarily impact earnings per share.

Earnings per share $EPS_1 = \frac{(EBIT_1 - I_1)(1 - T)}{N_1}$ in the production VAT, and earnings per share

$EPS_2 = \frac{(EBIT_2 - I_2)(1 - T)}{N_2}$ in the consumption VAT, among which N refers to number of common stocks, I refers

to interest cost of debt capital, and T refers to income tax rate, supposed that dividend on preferred stock is not taken into consideration.

3.2.1 Supposed that an enterprise needn't raise fund exteriorly in newly purchased equipment, namely, $I_1 = I_2$, $N_1 = N_2$, then change of earnings per share before and after the VAT reform is as follows:

$$\begin{aligned} EPS_2 - EPS_1 &= \frac{(EBIT_2 - I_2)(1 - T)}{N_2} - \frac{(EBIT_1 - I_1)(1 - T)}{N_1} \\ &= \frac{(EBIT_2 - EBIT_1)(1 - T)}{N} > 0 \end{aligned}$$

3.2.2 Supposed that an enterprise need raise fund exteriorly in newly purchased equipment, the fund needed has two forms of liabilities and interest, and in the case when capital structure remains unchanged, namely, $I_1 > I_2$, $N_1 > N_2$, then change of earnings per share before and after the VAT reform is as follows:

$$\begin{aligned} EPS_2 \div EPS_1 &= \frac{(EBIT_2 - I_2)(1 - T)}{N_2} \div \frac{(EBIT_1 - I_1)(1 - T)}{N_1} \\ &= \frac{(EBIT_2 - I_2)N_1}{(EBIT_1 - I_1)N_2} > 1 \end{aligned}$$

This proves that, whether an enterprise needs to raise fund exteriorly in newly purchased equipment after the VAT reform, earnings per share of its stockholders will increase, which is quite favorable for an enterprise to upgrade its developmental potential and industrial competition.

3.3 Impact of VAT reform on break-even analysis

After the VAT reform, it is allowed to deduct withholdings on VAT, which will reduce fixed depreciation expense per unit and which will have effect on the breakeven point, margin of safety, and margin rate of safety.

3.3.1 Impact of VAT reform on breakeven point

The so-called breakeven point refers to the sale condition in which scale of an enterprise's operation (sales volume or sales amount) exactly enables the enterprise to be break-even. This index provides ultimate portfolio information to prevent loss of the enterprise, and paves the way for judging the future operation safety degree and realizing profit of the enterprise.

Sales amount of the breakeven point in the production VAT is $y_1 = \frac{F_1}{p - b}$, and sales amount of the breakeven point in

the consumption VAT is $y_2 = \frac{F2}{p-b}$, then change of sales amount of the breakeven point before and after the VAT

reform is $y_1 - y_2 = \frac{D1 - D2}{p-b} > 0$, which proves that, after the VAT reform the breakeven point reduces. In this way, space

for an enterprise to make profit is enlarged, which is also beneficial for improving market competition of an enterprise.

3.3.2 Impact of VAT reform on margin rate of safety

Margin of safety refers to balance between orderly sales volume or current sales volume (including sales volume and sales amount) and sales volume of the breakeven point. Margin rate of safety refers to ratio of margin of safety to the

current sales or orderly sales volume. Then the margin of safety in the production VAT is $MS_1 = y - \frac{F1}{p-b}$, and the

margin rate of safety is $MR_1 = \frac{MS1}{y}$; the margin of safety in the consumption VAT is $MS_2 = y - \frac{F2}{p-b}$, and the margin

rate of safety is $MR_2 = \frac{MS2}{y}$; change of the margin of safety before and after the VAT reform is $MS_2 - MS_1 =$

$\frac{D1 - D2}{p-b} > 0$, and change of the margin rate of safety is $MR_2 - MR_1 = \frac{MS2 - MS1}{y} = \frac{D1 - D2}{y(p-b)} > 0$. Both margin of

safety and margin rate of safety are above zero, which proves that, after the VAT reform, operation and safety condition of an enterprise is better.

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The Translation and Dissemination of the Western Psychology from the Early Republic of China to May 4th Movement

Yanfeng Hu

Foreign Language Department, Dezhou University

Dezhou 235023, Shandong, China

E-mail: huyanfeng7548@sina.com

Abstract

The period from the early Republic of China to May 4th Movement is the crucial turning stage in the Chinese psychology translation history. During this time, the overseas students ever studying in Japan dominated the translation circle, and meanwhile some professional intellectuals ever studying in America began to join this circle. Therefore, the translation of this time not only maintained the former historical marks, but also began to take on many characteristics appearing after May 4th Movement.

Keywords: The overseas students, Republic of China, May 4th Movement, The western psychology, The translation and dissemination

The overseas students were a group of special new intellectuals in the history of Modern China, who played the very important role in the transformation of the Chinese traditional sciences and establishment of the new sciences. During this course, history entrusted to the overseas students multiple roles: both the disseminators of the western advanced culture and the founders of the Chinese new sciences, both the distinguished scholars and the successful translators. As the disseminators and translators of the western culture, they occupied an important position in the Chinese translation history in Modern Time. From the early years of Republic of China to May 4th Movement, history witnessed the birth of the Chinese new sciences, and meanwhile this period was also the crucial transitional stage in the Chinese translation history. At this time, the Chinese translation not only maintained the former historical marks, but also began to take on many characteristics appearing after May 4th Movement. As to the situation of the translation of the western psychology, the case was also like this. However, rare researches in this aspect can be found today in China for some reason, therefore, for the sake of clarifying this span of history, this paper tries to comb the dissemination and the translation of the western psychology the overseas students made during this period.

1. The historical background of the western psychology translated in Modern China

After Republic of China was founded in 1912, education was regarded as the effective way to rescue the nation. Ministry of Education promulgated a new educational system, Renzi Educational System on Sept.3, 1912. Law of College Curriculum was issued on Jan.12 next year, and it ruled that psychology was set in the department of philosophy. On February 24, Ministry of Education promulgated Law of Junior Teachers' College Curriculum again, and it ruled that psychology was set the public course for the regular college students in each department. The issue of these educational system and laws were of great importance for the dissemination of western psychology in China. First of all, it meant that psychology was accepted as an independent subject, instead of the auxiliary tool of pedagogy. Secondly, it meant that the dissemination of the western psychology was more widespread. Compared to Qing Dynasty, we can see that the dissemination and translation of the psychology in this period made the greater progress in range and depth. The establishment of subjective position of psychology in the Chinese educational system offered the historical opportunity for the translation, and the overseas students with professional knowledge and proficient foreign language skill turned this dream into reality in the process of western knowledge to China.

2. Caiyuanpei and the dissemination of the western psychology

From the year 1907 to 1913, Caiyuanpei went to Germany twice for further education, where he studied Wundt's psychology systematically. As he said himself, he paid much attention to experimental psychology and aesthetics (Cai, 1984, p.327). In his article *Evolution Theory of Ethnology*, he said (1988, p.455) that he always studied philosophy, but after arriving in Germany, he found its scope was too wide, so he wanted to narrow his researching range and then

turned to the experimental psychology. The studying experience in Germany and his preference to the experimental psychology made great influence on his educational value. After returning home, he was appointed Minister of Education. During his term, he paid much attention to the development of psychology and spared no effort to advocate the experimental psychology. Firstly, Caiyuanpei paid attention to the application of psychology in education. Once he pointed out (1984, p.59) that the new education must base on experimental pedagogy, which was the newest science in Europe and America. The experimental psychology had the close relationship with the experimental child psychology. Therefore, Caiyuanpei thought it was very crucial for the educators to analyze and master deeply the law of somatopsychic development of the child. Based on such principles of psychology, Caiyuanpei put forth his five educational policies, that's, militarism, materialism, moral education, world outlook and esthetic education. Secondly, Caiyuanpei paid more attention to the scientific and experimental methodology of psychology. In his opinion, the reason why the European science was most developed was that it based on the experiment, and the new mental science also tended to rely on it (Cai 1985, p.339). Therefore, Caiyuanpei inherited Wundt's psychological researching method. He said that once upon time many subjects were not scientific, for example psychology attached to philosophy before, now became a science when it applied the method of applied physics and physiology (1988,p.171). Owing to his psychological view, Caiyuanpei supported the development of the Chinese psychology positively, for example, with his help the Chinese first psychology laboratory was founded in 1917 in Beijing University, and later he established the psychology institute in Academia Sinica. So Caiyuanpei was considered to be a pioneer in the Chinese psychology history because of his contribution to the dissemination of the western psychology in Modern China.

3. The dissemination of the western psychology by the oversea students studying in Japan

The dissemination of the western psychology in Modern China owed to the oversea students studying in Japan first, especially in the aspect of translation, they played an important part from late Qing Dynasty to early Republic of China, among whom Chendaqi was a typical case.

Chendaqi (1886-1983), another name Chenbainian, was born in Haiyan, Zhejiang Province. At the age of 17, he went to Japan for seeking knowledge. Later he entered Tokyo Imperial College majoring in psychology and finally he was awarded bachelor's degree. In 1902, Chendaqi returned home and taught psychology in Beijing Politics & Law School. Then he was invited to Beijing University in 1914 and held the post of the dean of psychology department. With the help of Caiyuanpei, he established the Chinese first psychology laboratory in the department of philosophy. Though the condition of the laboratory was extremely poor, its foundation was a milestone in the Chinese psychology history, symbolizing the establishment of the psychology position in the Chinese higher education system and indicating the start of the psychological study. Additionally, before this, the Chinese students never heard of psychology laboratory and they felt mysterious about it. Now its appearance aroused their aspiration to knowledge and so some of them were determined to study psychology. The famous psychologist, Panshu, was a typical case. According to his reminiscence, in the year 1917 when he just entered Beijing University, he found that a room in front of the library was always locked, a board on the door with the characters Room for Psychology Instrument and Specimen. Whenever passing by, he always felt mysterious and never knew what was hidden in it. Until the next year, when Mr. Chendaqi initiated a short term course named Psychology Experiment, and offered another room for the students' experiment, he began to choose this course without any reason(Pan, 1930).

Chendaqi's another contribution to the early development of Chinese psychology was translations. He translated and edited *Outline of Psychology*, which was the Chinese first psychology text book for college students. This book was published by Shangwu Publishing House in Oct. 1918, with 15 chapters and 216 pages, mainly involving the physiological base and mental mechanism about feeling, sensation, conception, memory, imagination, will, thinking and personality. In order to clarify the conception of the term *psychology*, Chendaqi explained it scientifically on the first page. It read psychology mainly studied mental phenomenon, including its structure, its activity and its growth procedure. In the following, he pointed out the difference between psychology and philosophy. Finally, he introduced its researching method. He said induction was dominated in studying psychology, which was a bit different from other subjects. But he thought introspective method, observation method and experimental method should be regarded as auxiliary methods(Chen, 1918, p.4. 5. 9. 10.). After publishing, this book became popular with the circle of psychology for its popular language and its rich and new content. From 1918 to 1929, *Outline of Psychology* was republished more than 14 times. Chendaqi's other translations are as follows: *Child Psychology*, *Outline of Forensic Psychology* etc.

4. The oversea students studying in America made a figure in the dissemination of the western psychology

In the 20th century large quantities of Chinese students who were sent to study in America began with the year 1908, which was called Study Abroad Using Geng Zi Reparation in the history. After Eight-Power Allied Forces invaded China, Qing Dynasty was forced to sign Xin Chou Treaty. According to the treaty, the powers grabbed a huge sum of reparation from China, which called Geng Zi Reparation. In May, 1908, U. S. Congress passed a bill officially, which decided to return the redundant reparation for aiding financially the Chinese excellent youths to go to America for higher education. Two months later Qing Dynasty set the office in Beijing, in charge of choosing the candidates. From

the year 1909 till 1911, three examinations were held and 180 students were chosen. In 1911, Tsinghua School was founded, and this was the preparatory school for study abroad. Therefore, the high tide of study abroad in the early Republic of China appeared, among which many students majored in psychology. But only several oversea students returned home before May 4th Movement, they were Wang Changping, doctor of Michigan University, Chenheqin, master of Columbia University, Lingbing, doctor of Clark University, and Liaoshicheng, doctor of Columbia University etc. Though the returned oversea students were in small scale, they became the leaders in the field of dissemination and translation of western psychology because of their higher professional qualities. For example, Chenheqin, on return, spared no effort to introduce the western child psychology knowledge and its researching method, which laid the foundation for the establishment of the Chinese own child psychology, while Liaoshicheng brought about a new situation for the development of the Chinese educational psychology owing to his excellent work. After May 4th Movement, large scale of oversea students majoring in psychology began to return home successively, and they gradually became the leading force in this field.

5. Publishing of the western psychology books in this period

From early Republic of China till May 4th Movement, there were 15 kinds of foreign psychology books translated into Chinese by oversea students in total, as follows:

Lingqiao: *Psychology of Mirage World* (Shangwu Publishing House, 1911), Huirenlun, Pengqingpeng: *Common Child Psychology* (Jilin Library, 1912), Pengshifang: *The Chinese psychology Textbook* (Chung Hwa Book Co. 1912), Jiangweiqiao: *Psychology Lecture Notes* (Shangwu Publishing House, 1912), Zhouweicheng: *Child Psychology* (Beijing Pointer Publishing House, 1914), Zhangyucong, Shenchengqing: *Psychology New Textbook for Normal School* (Shangwu Publishing House, 1915), Gugongyi: *New Psychology* (Chung Hwa Book Co. 1915), Zhangzihe: *Extensive Psychology* (Shangwu Publishing House, 1915), Zhuguang, Yangbaoheng: *Lecture Notes of Practical Child Psychology* (Chung Hwa Book Co. 1915), Fanbingqing: *Essentials of Psychology for Normal School* (1915), Chenshiwu: *Practical Methods for correcting Eccentricity* (Shanghai Youzheng Book Co. 1916), Yuji: *Essentials of Psychology* (Shangwu Publishing House, 1917), Caiyuanpei: *Pandect of Parapsychology* (Shangwu Publishing House, 1917), Dushiye: *Revolution Psychology* (1918), Liurenhang: *Methods for Increasing Memory* (1918).

Through analysis, we can see that these books translated or edited in this period possess the following characteristics:

(1) Most of the translators or the editors were oversea students ever studying in Japan., such as Lingqiao, Pengqingpeng, Zhangyucong, Fanbingqing etc. So the oversea students ever studying in Japan played an important role in the dissemination of the western psychology during this period. (2) The original texts took on diversity. In late Qing Dynasty, the original texts mainly came from Japan, but at this time the number of the original texts from America, Germany, and France increased gradually. Such change reflected that the range of the translators' knowledge and outlook was becoming wider and wider gradually, and meanwhile it symbolized that the subject consciousness of the translators was becoming stronger and stronger when choosing the translating texts. (3) The contents of psychology were becoming richer and richer. In late Qing Dynasty, most of the translated psychology books were related to educational psychology, while in this period people changed their psychology value that it was only attached to pedagogy. The translators now regarded psychology as an independent subject, so they broke the fixed mindset in the process of knowledge-introduction and different kinds of psychology were translated or edited, such as common psychology, child psychology, abnormal psychology, social psychology and educational psychology etc. (4) The creative consciousness of the translators was increasing. Compared with the late Qing Dynasty, a significant change was taking place in translating, that's, the number of the translated books was reducing, while the number of the compiled books was increasing. Among the 15 publications, 12 books were compiled by the writers, covering 80% of the total. Although these compiled books also based on the foreign psychology and rarely possessed the authors' own understanding, this phenomenon manifested both the creative consciousness and the subject consciousness of the native translators were increasing gradually.

Summary

To sum up, the dissemination and translation of the western psychology in China during this period took on some delightful changes, but there existed lots of defects on the whole. For example, the proportion of the texts from Japan was still high, and meanwhile the translated or edited books were discrepancies in the quality and lacked systematicity etc. However, with the guarantee of the educational system, some related courses were set in the college. Additionally, some returned professional oversea students also strengthened the force of disseminators. All of this made the dissemination of the western psychology in China went farther.

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McDonaldisation and the Labour Process: Impacts and Resistance

Yu-Jen Wu

The Department of Labour Relations

National Chung Cheng University

Minghsiung 62102, Taiwan

Tel: 886-5-272-0411 ext.32352 E-mail: labyjw@ccu.edu.tw

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Abstract

McDonaldisation is the process by which the principles of the fast-food restaurant are coming to dominate more and more sectors of society. The aims of this article are to explore the possible impacts of McDonaldisation on the labour process and expose the hidden agenda behind McDonaldisation. My main argument is that McDonaldisation is the realization of an extremely instrumental rationality which deliberately develops a variety of strategies to achieve the interests of capital. The article indicates that, despite the prevailing of McDonaldisation, there might be two forces that seems likely to drive the labour process away from the McDonaldised working rules: subjectivity and flexibility. The article is concluded that McDonaldisation is gradually blurring and even eroding the boundary between the customers and the workers. The customers used to be the source of profit-making but are now asked to a part of the labour force, that is an exploitation of the customers to supplement McDonaldisation in the exploitation of labours.

Keywords: McDonaldisation, Labour Process Theory, Managerial Strategy, Rationality

1. Introduction

The modes of labour processes vary from industrial society to industrial society, but under capitalist economy it shares some distinguish features. One of the most notable characteristic is derived from what Marx called the transformation of labour power into labour. In the process of transformation, capital needs to create an appropriate environment which brings labour into full play in order to maximise profit. However, the interest of workers is pursuing job security, higher pay, and satisfactory working environment. Workers may resist against various managerial strategies through informal job control and restricted output of production (Thompson and McHugh 1990:113). Faced with the pressures of competition from global market, capital must develop new form of strategies of control in an attempt to smooth the transformation of labour power. Under the system of capitalism, the major function of management is to make the owner of capital to gain profits by maximizing the use of labour power (Berkeley Thomas 1993:61) In the modern time, the development of scientific management strategies further reinforces the control over labour power and work places (Braverman 1998). In this context, the McDonald's fast-food chain emerges and, then, spreads all over the world.

Ritzer's (1998, 2007) concepts of the McDonaldisation thesis are innovative and insightful, arguing that contemporary life is succumbing to the rationalisation, routinisation, and predictability. After deliberate examinations on two of Ritzer's works on McDonaldisation, I find some weaknesses that need to be further addressed and analysed. Firstly, in terms of research approaches, Ritzer tried to link McDonaldisation with the labour process in his both works. However, the studies cannot show how and the extent to which McDonaldisation shapes the features of the labour process. Secondly, Ritzer's analysis is inevitably deterministic, hence, it was unable to explore the dynamic social process and work relations. Most importantly, Ritzer ignores the subjectivity of workers in the production process which is derived from the contradiction between capital and labour. Drawing on these weaknesses, I argue that subjectivity of workers and the dynamic process of labour-capital relations would operate to reduce the influence of McDonaldisation on the daily working life.

The aim of the article is to explore the extent to which McDonaldisation shapes the dynamic social relations at work by revealing its impacts on the labour process. And, it tries to draw theoretical implications from the resistance of McDonaldisation in an attempt to provide critical insights into the McDonaldisation thesis. To achieve the objectives, the article is divided into four sections. The first addresses the dimensions of the McDonaldisation thesis. The second explores the possible impacts of McDonaldisation on the labour process. The third engaged in a critical appraisal of McDonaldisation. The final part is concluded that McDonaldisation not only reinforces the degree of managerial control over, but expand the range of capitalist exploitation from workers to the “unpaid labour” - the customers.

1.1 Dimensions of the McDonaldisation Thesis

Prior to addressing McDonaldisation of labour process, it is necessary to clarify what is McDonaldisation. As Ritzer (2007: 1) puts it simply, “McDonaldisation is the process by which the principles of the fast-food resaurant are coming to dominate more and more sectors of American society as well as of the rest of the world.” In essence, McDonaldisation is an effective paradigm of culture, value, operation concept, serving principles, and work arrangements. To some extent, the influence of McDonaldisation is not restricted to the restaurant business, it has invaded many aspects of modern life namely industries, services, government sectors, education, family and work.

At McDonald’s workplaces, interactions and activities among the workers, the managerial staffs, and the consumers are of the nature of rationality and rationalization. The sense of McDonaldisation embraces four aspects, efficiency, calculability, predictability, and control (Ritzer 1998, 2007). These aspects constitute the conceptual framework of McDonaldisation. However, in Ritzer’s works, he merely addresses them in general and pays little attention to the dynamic process of employee relations. In this section, I intend to take Ritzer’s work a step further, that is to systemically and deliberately elaborate the main elements of McDonaldisation by focusing on the actual working process of McDonald’s. This helps to make better connections between McDonaldisation and the labour process.

1.2 Efficiency

Efficiency implies the use of an optimal method in achieving a given aim. Under the scientific management of Taylorism, each working process and activities are carefully calculated and evaluated by adopting “one best way” arrangement to carry out the process of production. In order to achieve the demands of efficiency, there are three special processes or arrangements in the world of McDonald’s: **streamlining the process**, **simplifying the products**, and **putting the customers to work** (Ritzer 2007: 37-41). These arrangements construct the optimal means of achieving a given end in the workplace.

Streamlining the process makes the whole process of production to be an assembly line. Every movement and step of labour is pre-arranged scientifically in order to avoid the unnecessary waste of the workforce and any other resources. Therefore, from the very beginning of production till the product goes into customer’s hand is designed to be a streamlined process.

Simplifying the products implies that the products are simple, fast and easy to prepare. The products of McDonald’s are not only easy to prepare, they are also presented in a manner which makes it easy for the customers to order and to eat. Burgers, fries, and chicken nuggets are semi-prepared and can be cooked relatively quickly and without much complicated cooking skills. It is rather easy for the customers to order as well. McDonald’s has a global menu of basically the same food, e.g. Big Mac, cheeseburger, hamburger, egg McMuffin and drinks. There are “easy to eat” snacks such as chicken nuggets. You do not need both your hands to enjoy chicken when you are driving. As a result of the simplification of the products, the labour process in McDonald’s workplace become fragmented, de-skilled, easy to control, and highly replaceable. This is a major issue to be addressed later.

Putting the customers to work can be observed from the fast food, “self-service formula”. The customers need to join the queue at the counter and place their order with the counter staff. Next, they wait for their food to be located into their tray, then, take their order away to look for seats within the premise in order to enjoy their meals. Upon finishing their meals, the customers normally clear the table by themselves and place the rubbish into the right bin. When the customers want to enjoy fast food without getting out of their cars, they have to follow the already designed tracks to order and pay at the first window, get their meals at the second one and leave.

1.3 Calculability

The second elements for fast food restaurants to achieve rationalisation are calculability. This means that items in the production process should be calculated and quantified. In a sense, calculability also means deploying nonhuman technologies to perform tasks in the given amount of time or make products of a given weight or size (Ritzer 2007: 57). The inevitable consequences it may cause are two-fold: focus on quantity rather than quality and on numbers.

1.3.1 Quantity rather than quality

Fast-food restaurants attract consumers by serving large portions. The Big Mac, whopper burger, double whopper burger or triple cheeseburger, large drinks or extra-large drinks. The customers are able request to “go large” for more

French fried with a little extra money. Such emphasis on quantified products comparatively reduces the demand of quality and tend to become a surrogate for quality.

1.3.2 Emphasis on numbers

To simplify the various set meals, McDonald's puts numbers 1, 2, 3, 4 on the most ordered meals. This enables the workers to speed service and the customers can place their order quickly as well. For ethnic minorities who cannot use local language proficiently, such as foreign workers and new immigrants, can easily and precisely tell which meal they want. For example, 2 pieces chickens McCrispy meal, 9 pieces McNuggets are easy to identify from menus and take the order.

1.4 Predictability

In a rationalised society, the imperatives it may need is discipline, stability, order and consistency, because it is a society with predictability. In McDonaldised workplaces, in the first instance, predictability means that work organisation is not only a clean visible space. It is an environment that can be duplicated around the world. Second, predictability refers to script communications and interactions with the customers and among the workers.

1.4.1 Transparency of workplaces

To achieve predictability, in terms of organisational structure, workplaces need to be visually resemble and transparent. The consumers can see not only the working environment of the workers in the kitchen, but also activities of the other consumers in the restaurant. Moreover, managerial staffs can directly supervise everything that happens in the work place.

Due to emphasising the non-visual obstacle space, the working process is also resembled in McDonaldised workplaces. The working process is exposed to the consumers, the workers, and management in the transparent working arrangements. Working rules and structural arrangements in the workplaces of McDonald's make the workers act in a disciplined and standardised way in which not only the customers but also managerial staffs can predict what the workers are going to do next. The operation of assembly line production reinforces predictability of labouring and consuming behaviours.

1.4.2 Scripting communications and interactions

It indicates the repetitive and formal interactions between and among workers, management and consumers. Workers behave and act under the guidelines and instructions of the manual of McDonald's. For instance, the workers at the counter are required to carry out at least six steps in this work: Greet the customers, take the order, assemble the order, present the order, receive payment, deliver meals, thank the customers for choosing McDonald's and asking them to come again. The routinised and scripted interactions not only make workers' behaviour highly predictable; but also protect workers from insults and indignities that are frequently heaped upon them by the public. When encountering the public's hostility, workers can adopt the view that the scripts of McDonald's are the cause of the hostility instead of the workers themselves (Ritzer 2007:82).

Because the working manual has already scripted how to act and behave in the workplace, the communication and interaction can be consistently repeated and replicated. Even the workers are highly talented with language ability or social interaction, what they can deviate from the scripts to communicate and interact with others is very limited.

1.5 Control

McDonaldisation, to a large extent, implies about the development of managerial strategies in an attempt to gain control over workers and customers. The McDonaldised control do not simply adopt mechanic techniques to control the daily working process, but also employ sophisticated controlling methods to manage the behaviours of the key actors (e.g. the workers, the customers) in the McDonaldised workplace. As Ritzer (2007:101-2) puts it, once people are controlled, it is possible to begin reducing their behaviours to a series of machinelike actions. And once people behave as regularly as machines, the possibility of replacing them with actual machines such as robots would be greatly increased. Control through technology is the trend for managerial control over workers and their working process (Edwards 1980). I find that the methods of control in McDonald's can be divided into three aspects: **technological control**, **structural control**, and **ideological control**.

1.5.1 Technological control

In the workplace, the traditional control is face to face and direct, but is difficult and costly. It can easily lead to personal hostility and some form of resistance from the subordinates. However, controls made through technology are simple, less costly in the long run, and reduce hostility to supervisors in the workplace. (Ritzer, 2007: 102) To reduce conflict in the process of management, the methods of control in work places have been shifted from human face-to-face control to nonhuman technological control. This involves designing machinery and planning the flow of work to minimise the problem of transforming labour power into labour as well as to maximise the purely physically

based possibilities of achieving efficiencies (Edwards 1980: 112). McDonald's and other fast food restaurants gain strong control over workers by developing a variety of automation in the process of production. For example, screening drink dispenser to avoid over filling drinks, auto-switch-off fries maker to avoid improper preparation, cashier of pressing pictures of meals or using bar codes to avoid errors in prices, swiping cards before and after duty to avoid faults in work records, installing CCTV to effectively supervise and observe activities of workers and customers. The application of these new technologies into work places radically changes the patterns and forms of labour process. What these devices want to achieve is not only controlling workers but also increases productivity and lowers the costs of operation. However, the unintended consequence of technological control is that workers are intensively controlled by these new technologies.

1.5.2 Structural control

Structural control is to supply controlling methods through the arrangement of work space and the organisational structure of work in attempts to dominate social relations and interactions in the workplaces. This method of control is much more sophisticated and subtle than Weber's (1958 [1921]) bureaucratic control. Furthermore, in the name of management, structural control disguises the control of capital over the labour process in order to simultaneously obscure and secure the surplus of values. In Weber's terms, bureaucratic control largely relies on hierarchical disciplines, written rules and nonhuman management and thus more emphasised on the control of organisational structures. By contrast, as mentioned earlier, structural control enhances supervision and control over activities and interactions of the key actors by manipulating the arrangement of space and social relation of production.

In spatial arrangements of McDonaldised workplaces, emphases are placed on transparency, brightness, discipline and regularity. Except for private areas such as toilets and staff offices, the spatial arrangements, including kitchen, service counter, dining area, and children's playing corner, can be seen without expression of visual obstacles. The communication and interaction between and among the managers, the workers and the consumers are transparent and truly exposed to the public. The potential consumers can see the activities in the workplace from outside, whilst the managers can not only supervise those in the work place, but also observe communications and interactions between workers and consumers. As a result, control and supervision are reinforced by such spatial arrangements and, in return, workers have to provide their services without a deviation from the working rules and the manual.

In terms of social relations in production, the transparency of spatial arrangement, scripted communication and interaction transformed the patterns of social relations and interaction in the workplaces into a controllable mode. They become formalised and simplified. The influences of sub-groups or informal groups in the workplace are weakened. The formation of trade union and its activities are hard to be organised. The introduction of new technologies such as CCTV and computers, has a great impact on the social relations of key actors in the workplaces by reinforcing the intensive controls and watch over them.

1.5.3 Ideological control

Ideological control refers to employ a variety of moral values and ideologies in accompany with the interests of employers to control the social relations and interactions of the key actors. The power and intensify of ideological control are much greater and more penetrative than that of technological or structural control. In McDonaldised workplaces, pre-work training and business culture are the source of value and moral controls through which the workers and the consumers would internalise the ideologies prompted by McDonald's value system (Ritzer, 1998: 62). These internalised ideologies, in turn, constrain the intentions of the workers and the customers to act at their will.

Human control is more likely to arouse resistance and hostility from workers (Friedman 1990). However, ideological control that internalises the value system of the employers into the workers would not only reduce the possibility of resistance and antagonism, but also make workers act as expected by the employers. In terms of efficiency and interests of operation, ideological control is better and more sophisticated than technological and structural control. Since an ideological control is the control by way of moral and value system, it is very difficult for the workers to cognitively liberalise from the ideology created by employers, unless the workers become aware of injustice and exploitation (McAdam 1988). This is the essential base for collective mobilisation of workers.

2. The Possible Impacts of McDonaldisation

In order to explore the extent to which the impacts of McDonaldisation on the labour process, it is necessary to identify the main themes of the labour process and then locate the key elements of McDonaldisation into the labour process. By doing so, one can address the connections between McDonaldisation and the labour process as well as explore its possible impacts on the workplaces. The main arguments of the labour process theory can be drawn from some important works in this field (i.e Braverman 1998; Thompson 1997; Burawoy 1985; Hyman, 1987; Edwards 1980). The core themes of the labour process theory can be categorised into four aspects: surplus value being generated by the labour process; the logic of accumulation driving capital constantly to revolutionise the production process; the necessity of control; structured antagonism between labour and capital (Thompson 1997: 241-245). Here, I do not want

to intensively repeat these theoretical insights. Instead, my intention is to explore the impacts of McDonaldisation on the labour process by examining the extent to which and how the labour process is influenced by McDonaldisation.

2.1 The double exploitation of surplus value

Surplus value is generated from the labour process. To ensure labour power transforms into labour and to generate more surplus value, capital need to develop various strategies by occupying and exploiting the value of surplus produced by workers and coping with the possible obstacles and conflicts in the labour process. However, surplus value does not always come from capital, it come partly from the transformation of labour power. Marxists note that the way to accumulate capital is to appropriate surplus value by paying nothing to the workers. In other words, the exploitation of workers in the labour process is the way to secure accumulation of surplus value and make profits for capital.

To create more surplus value, the McDonaldised workplaces put the consumers into the labour process to do unpaid work when the consumers are unaware that their labour are at McDonald's disposal. The consequence of putting the consumers into the labour process is to bring about the redundancy of the workforce because some workers are replaced by the unpaid labour of the customers. Moreover, one of the vital strategies for accumulating surplus value is to minimise labour costs. In McDonald's, the fact that a great number of part-time workers or temporary workers are employed is a good example: reducing labour costs by replacing core workers (i.e. permanent workers) with part-time workers. Ritzer uses the term, McJobs, to portray the characteristics of the part-time jobs in the McDonaldised workplaces, which are temporary, non-skill, homogenous, tedious, fragmented, and high turnover rate. Therefore, the jobs are low-paid and marginalised staffed with young and minority workers. (Ritzer 1998: 59-61)

With the creation of "McJobs", "McWorkers" are largely employed. Since they are marginalised and highly substitutable workers, they are poorly protected by national regulations. The employers can employ McWorkers with great flexibilities and at their disposal. For instance, employers are able to increase the amount of McWorkers during peak hours, whilst asking workers to be off duty at the time of no customers. Therefore, it is difficult for McWorkers to foresee and estimate their regular incomes. With little protection of national laws, McWorkers could be made redundant at anytime without compensation for job losses when the workplaces are closed down.

McDonaldisation greatly increases the ability of employers to generate surplus value by making the customers to do unpaid labour. In this regard, one can claim that capital exploits the surplus value generated by not only the workers but also the consumers. Such a "double exploitation" of capital contributes to the concept of Marxian variable capital, which should embrace not just workers but also consumers. McJobs are simple, replaceable, fragmented and de-skilled. Therefore, they can not only be easily controlled, but also replaced with machines and temporary workers.

2.2 Innovation of logic of accumulation

A logic of accumulation constantly drives capital to revolutionalise the production process (Burawoy 1985; Littler 1990). As Thompson (1997: 243) argues that it arises not only from the competition between units of capital but also from the antagonism between capital and labour that is unique to capitalism as a mode of production. This logic of accumulation drives capital to enhance the capacity of transforming labour power to labour and reduces costs of production by de-skilling workers.

In terms of instrumental rationality, McDonaldisation not only suits the interests of capital but also reinforces its capability of capital accumulation. In pursuit of efficiency, the arrangements of the labour process such as streamlining the production, simplifying the products and putting the customers into work are deliberately developed by the employers rather than suddenly emerged in the workplaces.

In McDonaldised workplaces, the logic of accumulation also drives the development of new technologies and the new methods of production by improving the labour process with new technologies and replacing workers with new technological devises. To achieve this objective, it has to make the labour process fragmented and repetitive, which is the basis for machines to replace the workers. As a result, workers are alienated from the labour process and the products. Moreover, it widens the gap between the conception and execution of the labour process. The function of labour power is downgraded as those performing simply specialised task which serves to segmentalise the division of labour.

Globalised economic system driven by telecommunication and visual technology is developing faster than ever in the past decades, the boundaries to capital flow are broken down. Under the driving force of logic of accumulation, it is a necessity for capital to consistently search for methods of lowering costs and renovating technologies (Waters 2005: 150). This leads Burawoy (1985: 150) to stress that the fear of being fired is replaced by the fear of capital flight, plant closure, transfer of operations, and plant disinvestment. It is clear that the effects of McDonaldisation are widely multiplied by globalization and facilitate radical changes to the labour process. Workers are unable to defence themselves from the sweeping tides of McDonaldisation and globalisation. The double pressures of fearing losing their jobs and capital flight not only forces workers to conduct concessional bargaining, but also intensifies managerial intention of exploiting and controlling labour.

2.3 De-humanisation and De-personalisation

As mentioned earlier, the methods of control in McDonaldised workplaces were categorised as threefold: technological control, structural control and ideological control. Even though Braverman (1998) stresses the importance of control, the controlling methods in McDonald's are more sophisticated and subtle than that identified by Braverman. The different methods of control in the McDonaldised workplaces have various impacts on the labour process.

Technological control follows the external coercive laws which extrinsically compel workers to act in a predictable way and consistent with the benefit of capital. Technological control not only makes the labour process de-humanised and de-skilled, but also infringes upon the human rights of workers. The installation of CCTV in the workplaces invades workers' privacy. People invent new technologies to replace manual operations, but in the end these technologies become the instruments of dominating people's lives. Human actions are restricted by new technologies, which is Marcus's (1964) strong argument on "one dimensional society". Based on this rationale, it can be argued that McDonaldisation brings about "one dimensional workplaces". It means that due to extremely emphasising instrumental or formal rationality, and neglecting the significance of communicative or substantive rationality, the daily work becomes dominated by single dimension of rationalisation.

Structural control adopts externally coercive instruments, which the workers have to work under the structural arrangements and constrains of the production process. In the context of almost transparent space, the managers can easily observe and supervise workers' behaviour; whilst the consumers and colleagues can observe communication and interaction among people in a convenient way. Small-sized work organisations shorten the communication distance between managers and workers. However, scripted communication and interaction restricts the formations of meaningful social relations between and among people. In McDonaldised workplaces, scripted communication and interaction make the workers accustomed to being guided what to do and how to talk and gradually losing their capability of explaining and define the situation they are in (Ritzer 1998: 24). In this sense, scripted interaction is a kind of instrumental action rather than communicative action, which is designed for the purpose of gaining controls over the labour process and increasing productivity. The actors including the workers, the managers and the customers hardly reach a mutual understanding through the use of languages of their own.

Ideological control completely differs from the above-mentioned methods of control. Instead of an externally coercive instrument, ideological control adopts an internally regulative instrument which makes the workers internalise the ideologies developed by the employers to become the part of moral code for the workers. In this sense, when the workers and consumers intrinsically accept these values and ideologies, it is more likely for them to act as expectably as the employers. Based on this rationale, it can be assumed that if McDonald's can make the consumers view McDonald's as their own by developing "the sense or feeling of home" into the value system of McDonald's, it would be possible to further replace the workers in charge of the kitchen and the toilets with the unpaid labour of the consumers.

To sum up, the methods of control in the McDonaldised workplaces are such a sophisticated that the labour process as a whole can be influenced by technology, structure and ideology. However, the unintentional consequences of such controls may be caused: de-personalisation and de-humanisation.

2.4 Deepening of structured antagonism

The social relations of capital and labour is based on structured antagonism (Edwards 1987). The complex factors of the exploitation of labour, struggles for transforming labour power to labour, the demands for capital in controlling working conditions, and workers in pursuit of maximising wages bring about various forms of conflict and resistance in the workplace. Therefore, structured antagonism not only derives from the inherent confrontation between labour and capital, but also comes from conflicts of relationships within social structure of production.

The reasons why McDonaldisation might further deepens structured antagonism between capital and labour can be explained from two aspects: the increasing tendency of labour commoditisation and the opposition of collective interaction.

The tendency of labour commoditisation is a degree of orientation regarding workers as either commodities or human resource. Commodity and human resource are the two ends of a consistent spectrum. When employers view workers as commodity, workers receive low wages, poor fringe benefits, little training and less career prospect, and job insecurity. However, when employers see workers as human resources, workers enjoy higher wages, better fringe benefits, more training and promotion, and job security (Purcell and Ahstrand 1994: 178; Marchington and Parker 1990). In McDonaldised workplaces, the workers are seen as commodities. McWorkers can be hired and dismissed at the employers' will and work with low wages, poor fringe benefits as well as no career prospect. The employers enjoy the high degree of flexibility in adjusting the number of the workforce to meet the demand of markets. More McWorkers are employed during peak times, whilst only essential workers are on duty during off-peak times. Therefore, the status of "McWorkers" is regarded as the high orientation to labour commoditisation.

McDonaldisation represents the combination between individualism and rationalism. Due to the asymmetry of power relations between capital and labour, the way in which workers can deploy to be a counter power against the employer is to unionise together and carry out collective action (Edwards 1987; Kelly 1998). From the views of the employers, interaction with collective workers and industrial actions of workers are irrational, putting the efficiency and flexibility of production at risks. Collective actions are beyond managerial controls. Unionism and collective actions stand in opposition to individualism and rationalism on which McDonaldisation is based. Therefore, individual interaction between workers and employers would be the best option for the employers to meet their interests. Without collective solidarity of workers, not only asymmetrical power relations between labour and capital will be maintained consistently, but also the control system over the workplaces will be sustained. As a result, the managerial strategies for industrial relation in the McDonaldised workplaces are similar, which opposes unionism to spread and penetrate into the workplaces and obstructs the control system from being demolished.

3. Resisting McDonaldisation: Subjectivity and Flexibility

As I mentioned earlier, the McDonaldisation thesis argues that contemporary working life is succumbing to the rationalisation, routinisation, and predictability. In the previous section, I demonstrated the possible impacts of McDonaldisation on the labour process. In fact, despite the wave of McDonaldisation is hard to be resisted and even reversed, there are forces which seem likely to drive the workers and the labour process, to some degree, away from McDonaldisation, namely subjectivity and flexibility. Here, I move on to examine whether and the extent to which they operate to resist McDonaldisation.

3.1 Subjectivity: Absolute Domination or Relative autonomy?

Foucault (1988: 11-12) stress that, when the practices of labour is not invented by workers but constructed by others with their goals, values, and culture, the formation of subjective consciousness of workers would be suppressed. In this case, the behaviour and action of the workers would tend to be universal, consistent and routinised, because they cannot actively generate and format the sense of “themselves” through practicing their labour for their own purposes. The question one may raise here is whether or not the practice of labour and the formation of subjectivity of workers in McDonald’s are restricted or dominated by managerial controls and instrumental rationalities.

The special strategies for control and resistance adopted by managers and workers respectively are likely to oscillate between coercion and consent relying upon the specific market conditions (Ramsay 1978; Hyman 1987; Collinson, 1992). The relationship between labour and capital is a contradictory relationship of coexistence of both interdependence and antagonism (Edwards 1987; Littler 1990). In the context of contradictory relations, Hyman (1987: 30) even notes that, “there is no one best way of managing these contradictions, only different routes to partial failure”. Therefore, managerial strategy can be best be conceptualised as the programmatic choice among alternative “none of which can prove satisfactory”, because of workers’ resistance. Collinson (1992) also argues that, no matter how subordinated workers are, workers always retain some social and technical knowledge and the resource to deploy a degree of control over their lives. They are conceived that due to subjectivity of workers, there is room or space available for workers to opt for the measures used to cope with industrial disputes at work.

Despite the asymmetrical relations of power between labour and capital, Giddens (1986) claims that, its nature remains dualistic: interdependence and reciprocal. Although control and domination exist in the workplaces, workers are able to retain a certain degree of inter-subjectivity, social relations, knowledge and technology. These characteristics are conducive for breaking the control and blockade the employers deploy. As Brown (1992: 192) notes, like other social processes, attempts to control the labour process must have unintended consequences which contradict with employers’ original intentions. Therefore, the integration of the production process, which bases on the division of labour and control such as assembly line, has the possibility of being blocked and resisted by a small group of workers. That is, despite the sophisticated controls manipulated by the employers, workers are able to develop strategy for resistance, such as restricted output in the game of making-out (Burawoy 1985), joking by expressing their dissatisfaction in an attempt to undermine managerial authorities (Radcliffe-Brown 1965), fiddling their working time, theft or using facilities for personal purposes (Collinsons 1992; Noon and Blyton 2007).

In this sense, in McDonald’s workplaces, McWorkers also retain some social and technical knowledge and resources enough to demonstrate their discontent with the employers’ institutional arrangements and express their complaints over the variety of managerial controls. In spite of the routinised interactions and scripted communication required by McDonald’s, it is difficult for employers to force McWorkers, who have grievances, to show their smiling faces all the time at work. In other words, the options remain available for McWorkers to either serve as an emotional labour of taking good care of the customs or simply act as a typical physical labour. Moreover, in some cases, it is also hard for the employer to avoid the spreading of devastating rumors at work which are intentionally exploited by the aggrieved McWorkers in an attempt to undermine managerial authorities, simply because they are unhappy with the introduction of a new working rule. In the other cases, it is not hard to imagine that McWorkers treat their visiting friends with free meals of the Big Mac burgers within the premise of McDonald’s as the way of showing their friends that they are not

just only a McWorker but are capable of doing what they want to do at the McDonald's premises. In some sense, it seems that, in turn, McWorkers get back the power of dominating production order in the workplace from the employers' hands.

Furthermore, in order to show their dissatisfaction with what the McDonald's system has done, McWorkers can take a last resort by a "voting-with-feet" option: leave their McJobs. As I mentioned earlier, there is a high labour turnover rate in the McDonald's workplaces. In some respects, it implies that McWorkers, who are regarded by their employers as the secondary workforces in the McDonald's workplace, can express what they really feel to their employers by quitting the McJobs.

To sum, on one hand, three dimensional controls of technology, structure, and ideology are sophisticatedly and elaborately employed by McDonald's in a bid to successfully obtaining workers' consent and co-operation which, in Marx's term, is vital for employers to transform labour power into labour. On the other hand, in terms of inherent conflicts between labour and capital, even subordinated McWorkers still have a selection of strategies and tactics used to resist managerial arrangements. Therefore, it is showed, though, that in the capitalist economy, McWorkers do not have enough powers and resources to stop employers' exploitation of labour and curb the spread of McDonaldisation into the other workplaces. However, they have a relative autonomy of determining the way they want, irrespective of its consequences. Despite the defenseless of McWorkers against McDonaldisation, the co-existence of and intertwining between managerial opposition and workers' resistance will never come to an end in the McDonaldised workplaces. Based on the discussion above, an implication drawn here is that, despite of the prevailing of McDonaldisation, the workers with subjectivities retain the relative autonomy to resist a variety of control.

3.2 Flexibility: Colonisation of life world?

Marshall (2007: 550-551) indicates that the nature of rationalisation is a process which actors intensify controls over the outside world by exercising their knowledge in the context of impersonal relationships. Rationalisation does not bring the freedom and autonomy for actors. Instead, a means of rationalisation is taken as its purpose, whereas actors are imprisoned in the "iron cage" of the system, organisation, and activities of rationalisation. The concept of "iron cage" here is closed to Habermas's (1987) "colonisation of life world". The colonisation of life world means that, due to the enforcement of instrumental rationality within economic and administrative systems, the reproduction of labour is threatened and social rationalisation become twisted and fragmented. In McDonaldised workplaces, because the instrumental rationality and control are excessively emphasised, the communicative rationality can not be reached through inter-subjectivities. This implies that, McWorkers are imprisoned in the iron cage of McDonaldisation and, even worse, face with the colonisation of working-life world.

However, Ritzer (2007: 154) argues that post-Fordism stands in opposition to the McDonaldisation thesis: the idea that there is an increase in irrationality contradicts the view that there is an increase in rationality. In post-Fordist societies, the regime of capital accumulation and the labour process are transited from mass accumulation to flexible accumulation (Harvey 1990). Mass accumulation needs rigid technologies, standardised work routines, homogeneous products, and de-skilling, whilst flexible accumulation requires sophisticated technologies, flexible production process, heterogeneous products, and various skills. Therefore, the rise of post-Fordism has a number of distinguishing characteristics, which are different from those of McDonaldisation, such as lean production, just-in-time, a more flexible form of management, interest in more customised and specialised products, and demands for workers with more diverse skills to handle the new and more sophisticated technologies. These facts are inconsistent with the fundamental tenets of McDonaldisation. In this sense, the iron cage of McDonaldisation does not completely block the flexible production in the era of post-Fordism. Instead, McDonald's working system needs to learn how to adapt to the dramatic changes of a global economy for surviving. The way of achieving this is to make their working system more flexible rather than rigid.

Among the things McDonaldisation shares with Fordism are rationality, homogeneous products, efficiency and standardisation, deskilling, the mass worker, constraint and rigid technologies. However, with intensifying global competitions, McDonaldisation has started to adopt some key concepts of post-Fordism for boosting the company's benefits and maximising capital accumulation. For instance, in order to enhance flexibility in employment, McDonald's has already introduced flexible working-time (i.e. part-time workers and temporary workers), performance-related payment based on a minimum wage, flexible work organisation (i.e. dismantling job classifications, workers performing multiple tasks and promoting greater cooperation and team work). Therefore, it can not be denied that some vital elements of post-Fordism has influenced the way of McDonald's managerial strategies for regulating employment practices at present.

Drawing from the discussion above, it is clear that McDonaldisation do not fully dominate the labour process of the daily working life, whilst post-Fordism cannot help workers as a whole completely escape from "colonisation of working life". The dichotomy of patterns of the labour process between McDonaldisation (or mass accumulation) and post-Fordism (or flexible accumulation) do not contradict each other but co-exist at the same time.

4. Conclusions

McDonaldisation is the process of more and more sectors of the society dominated by the principles of managing fast food restaurants. The article linked McDonaldisation with the labour process by exploring its impacts on the labour process and showing the driving forces resisting the spread of McDonaldisation.

McDonaldisation reinforces the degree of managerial control over labour and expands the range of capitalist exploitation from workers to the “unpaid labour” -- the customers. In the labour process of McDonald's, the boundary between the consumer and the worker is gradually blurred and even eroded. The customers used to be the source of profit-making but are now asked to a part of the labour force. In essence, this is an exploitation of the consumers to supplement assist McDonaldisation in exploitation of labours. The experience of McDonald's reveals that the nature of work is changing, capitalism is developing new instruments to control and exploit labour. Not only can labour power be replaced with temporary workers and machines, but also to some extent with the customers. As Ritzer (1998: 70) puts it, surplus value is now not only derived from the labour time of the employee, but also from the leisure time of the consumer.

McDonaldisation can be seen as a movement of rationalisation, whose ultimate objective is to simultaneously obscure and secure surplus values during the labor process. The major impacts of McDonaldisation on the labour process are four aspects: double exploitation of surplus, innovation of a logic of accumulation, the possible constraints of subjectivity, and deepening of structured antagonism. Under the global economy, the impacts of McDonaldisation become profound and far-reaching. To reduce the uncertainty, McDonaldisation makes the labour process more streamlined, disciplined, orderly and consistent by exercising sophisticated controls. Moreover, it makes the production process more efficient, predictable and calculable by consistently improving the mode of production. As an open workplace, the imperative of McDonaldisation is domination, arbitrariness and instrumental rationality, which serve to enhance the efficiency, calculability, predictability and control of the labour process. Workers shape the sense of themselves through their daily working life. Therefore, due to various working experiences of individuals, the subjectivity of McWorker is varied. The subjectivity of McWorkers encourage them to gain the power of setting “the rule of playing” at work rather than just follow the working disciplines required by employers. Despite the tendency of McDonaldisation, the subjectivity of the workers and the flexibility of production process operate to make social relations of the production more dynamic and pluralistic. McDonaldisation shares the same arrangements with Fordism. With increasing global competitions, post-Fordism has emerged to penetrate into the McDonaldised workplaces. While McDonaldisation remains a powerful force in today's world, it will adapt to the rapid changes of global economy.

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Analysis of the Quality Safety of Farm Products Based on the Game Theory

Xiaoming Yang

Wuhan University of Technology

Wuhan 430070, China

Zhejiang Institute of Mechanical & Electrical Engineering

Hangzhou 310053, China

Tel: 86-571-8883-7150 E-mail: yxming0460@sina.com

Abstract

Based on the fact that the academe rarely researches the quality safety of farm products from the view of the game theory, we utilized choice behavior of the government which influences the purchaser (market) and the producer (farmers) by the combination of the compensation mechanism and the quality rating mechanism in Chinese quality safety management of farm products to enhance the quality of farm products, analyzed the reason why the quality safety of farm products is hard to be enhanced by the game tools, and further redesigned the behavior combination of the government according to the game results.

Keywords: Quality safety of farm products, Game, Choice behavior, Mechanism design

1. Introduction

The quality safety of farm products is the need of the development of the market economy and the need to ensure the safe consumption, and it involves many parts such environment, production, transportation, sale and market, and no matter which part is in trouble, the consumers' healthy consumption can not be ensured. The quality safety of farm products can not only decide the development of the agriculture and the agricultural economy and the competitive ability of Chinese farm products in the international market, but also influence the normally running of the party, the country and the society. So it is very meaningful to study the quality safety of farm products, and foreign and domestic scholars have devoted much attention, and relative research results are emerging in an endless stream.

About the reason to induce the unsafe quality of farm products, Zhang Lifu et al (2002) thought that many situations including the agricultural production environment is being destroying continually, the environment pollution is being aggravating increasingly, the technology is lagged, the market test and quarantine mechanism is not perfect, and the laws and regulations are not complete make the quality of farm products hard to be guaranteed. From the views of weak detection ability, low quality of quality control personnel and bad performance of quality equipment, Lv Qiaozhi (2007) analyzed the reasons of unsafe quality of farm products in detail. Zheng Fengtian and Zhaoyang (2003) selected the emphasis of analysis in the layer of the quality safety supervision, and they thought the main reasons to induce the low quality of farm products included that Chinese government blanked off the information of the epidemic region and rarely supervise and manage the food safety and sanitation powerfully, the manufacturers blindly pursued the business profits, and the agricultural management institutions were overstaffed. For the countermeasure analysis of the quality safety management of farm products, some scholars emphasized to start from the headstream pollution management, largely push the standardization of the quality of farm products, establish and perfect the quality test and checking mechanism of farm products, perfect the quality safety management mechanism of farm products, realize the integrated management, strengthen the quality consciousness, and attach importance to the function of technical factors to the quality safety of farm products (Xu Jing, et al, 2007), and the government should pay attention to the information channel construction in many parts such as the production, circulation and sale, and reduce the "Lemon Problems" in the market of farm products (Wu Jianping, et al, 1999). Starting from the legislation, other scholars appealed to the government for establishing the universal and strict market admittance system as soon as possible (Zhang Lifu, et al, 2002), quickening the step of the legal construction, strengthening the power of law execution (Lv Qiaozhi, 2007), and

finally actualizing putting the quality safety of farm products on a legal basis (Li Yuwen, et al, 2003).

To be sure, existing theories have made large amounts of research for the reasons and countermeasures of the quality problems of farm products, and they have offered some theoretical approaches to solve the quality safety problem of farm products, but undeniably, these researches more start from the exterior environment and the restriction mechanism of the production and management of farm products, and few of them deeply studied the interior behaviors of relative subjects such as government, purchaser and farmers in the quality safety management of farm products. However, in practical economic running, above economic subjects would continually adjust their own behavior choices surrounding the objective function which presents the amount of their benefits in deed, and this dynamic behavior adjustment process will compose of the mutual game relationship among subjects on the meaning of economics to some extent. So we can say that it is not effective to look for the measures to solve the quality problems of farm products without these interior behaviors. Based on that, aiming at the behavior choice of the government in the macro management of farm product quality safety and the dynamic change of the benefits among subjects induced by the choice, in this article, we utilize the game theory to analyze the reason why the quality of farm products is hard to be enhanced, and further make corresponding mechanism design innovation for how to improve the quality of farm products.

2. Theoretical analysis of the reason why the quality of farm product is hard to be enhanced

The game model established in the article is based on three subjects including government, purchaser (market) and farmer. As the macro management subject of farm product quality, the government's behavior choice is understood as the appointed exterior limitation in the analysis of the model, which will largely influence farmers and purchasers' choice behaviors. In this article, the behavior choice of the government is mainly embodied in the compensation mechanism (strong compensation or weak compensation) to the farms who plant the crops and the rating service (strong rating or weak rating) to the quality of farm products. The weak compensation means that that the government gives same common compensation (the compensation value is U_0) according to the planting area, and doesn't give the difference compensation (including direct money compensation, and indirect compensations such as tax preference or derating, loan preference, rating charge preference and free technology) according to the quality class of farm products planted by farmers. Strong compensation means that the government gives higher special compensation for the high-quality farm precuts (such as healthy and safe organic farm products) (the compensation value is U_1 , and $U_1 > U_0$) and gives lower general compensation U_0 for traditional low-quality products. Strong rating means that the government gives fully rating to the quality of farm products, which are the references for farmers when they sale the products. By contraries, if the government doesn't rate the quality of farm products or doesn't give fully rating, that is regarded as weak rating. For the charging of the rating, in this article, we adopt the mode of "who requires rating, who assumes the charge". Generally speaking, the rating charge is assumed by the farmer and computed into the production cost. The purchaser's behavior choice set is {high price, low price}, and the farmer's corresponding behavior choice set is {high quality, low quality}. The cost that farmers plant traditional low quality farm products is C_0 , and the cost that they plant high quality farm products is C_1 , (in practice, $C_1 > C_0$), and the outputs respectively are Q_0 and Q_1 ($Q_0 > Q_1$), and the prices respectively are P_0 and P_1 ($P_0 < P_1$). As the purchaser, the consumer's benefit is W_1 when he consumes farm products with high quality, and his benefit is W_0 when he consumes farm products with low quality, and the corresponding costs respectively are $P_0 \cdot Q_0$ and $P_1 \cdot Q_1$.

According to above analysis and hypothesis, we can explore the root that the quality of Chinese farm products is lower from the general compensation system (weak compensation) and few rating (weak compensation) implemented by the government at present to certain extent. First, we can establish the following model.

INSERT MATRIX 1 ABOUT HERE

Through the beneficial analysis of the matrix 1, we can see that the exclusive pure strategic Nash Equilibrium (low quality, low price) exists in the model. The analysis result indicates that without the effective rating mechanism, the general compensation system implemented by the government is hard to stimulate farmers' behaviors and hard to enhance the quality of farm products. Thus result accords with the present actuality of China, and it requires that if the government wants to improve the quality of farm products, the rational measure is to change its behavior choice, and adjust the existing system arrangement, i.e. implement the innovation of the system design on the macro layer.

3. Innovation of macro system design for the farm product quality management

In above analysis, we found that the deficiencies contained in the government compensation mechanism and rating mechanism were the important reasons that the quality of farm products is hard to be enhanced. In the second part of the article, we suppose the behavior choice set of the government in the quality management of farm products mainly includes compensation (weak compensation, strong compensation) and rating (strong rating, weak rating), so we can easily obtain three sets of behavior combination which can be selected by the government, i.e. {strong compensation, weak rating}, {weak compensation, strong rating} and {strong compensation, strong rating}. In fact, the combination of {strong compensation, weak rating} could not exist, because since the fully rating offered by the government to the

quality of farm products doesn't exist, the base to implement difference compensation system doesn't exist. So we mainly analyze the latter two sets of behavior combination.

3.1 Game analysis of the choice behavior combination (weak compensation and strong rating) of the government

Before analyzing, it should be appointed out that when the government offers the service of strong rating, farmers will assume higher rating charge because of offering farm products with high quality, and make their planting costs rise from C_1 to C_2 . At the same time, to make the theoretical analysis more approaching the actuality, we add the hypothesis that the government will punish the fake behaviors to prevent farmers sell seconds at best quality prices (the value is e). Under thus background, to analyze the behavior combination (weak compensation, strong rating), the following situation will be presented in Matrix 2.

INSERT MATRIX 2 ABOUT HERE

In Matrix 2, from the beneficial analysis of the model, {low quality, low price} is still the exclusive pure strategic Nash Equilibrium. In fact, there are two hypotheses concealed here. First, when the purchaser selects the strategy of high price, farmers can sell seconds at best quality prices to obtain a better beneficial value of $(P_1 \cdot Q_0 - C_0 + U_0)$ which is higher than the benefit of $(P_1 \cdot Q_1 - C_2 + U_0)$ when they offer the farm products with high quality. But in practice, because of the existence of the punitive penalty e of the government, farmers will suffer severe punishment when their cheating behaviors are found, which will reduce the beneficial anticipation of farmers to carry through moral risk and give up the behavior selling seconds at best quality prices, and choose to offer the products with high quality. Second, when farmers sell the farm products with high quality in the market, purchasers will give lower price, which doesn't accord with the practice obviously, so farmers will not sell their products then, and the purchaser can obtain the farm products with high quality only paying for higher price. Above analysis indicates that two behavior combinations of {low quality, high price} and {high quality, low price} are not the dynamically stable combinations, so the combination of {high quality, high price} seems to compose of the Nash Equilibrium, so two sorts of equilibrium will exist in Matrix 2. But if we dynamically consider the stability of these two sorts of equilibrium, we can further find that the combination of {high quality, high price} possesses the instability under the dynamic condition comparing with the combination of {low quality, low price}. We can first compare farmers' benefits, $(P_0 \cdot Q_0 - C_0 + U_0)$ and $(P_1 \cdot Q_1 - C_2 + U_0)$, under two sorts of combination, because many risks brought by the fluctuant prices of farm products, uncertain production and sales amount, and immature technology when farmers plant the crops with high quality, and the compensation that farms obtain from the government is limited, so farmers tend to avoid the fluctuant risk of income and choose to plant traditional crops with low risk and low quality. For the purchaser, because the price of the farm products with high quality is always higher than the price of common farm products, which may make his income present $W_1 - P_1 \cdot Q_1 < W_0 - P_0 \cdot Q_0$, so the purchaser's rational choice is to buy the farm products with low price, and farmers also tends to choose to plant traditional crops with low quality because of the narrow high price farm products market and above risks, so the combination of {low quality, low price} becomes into the exclusive Nash Equilibrium. Obviously, the behavior combination of {weak compensation, strong rating} doesn't accord with the requirement of the model.

3.2 Game analysis of the choice behavior combination (strong compensation and weak rating) of the government

According to the former definition in the article, the government choice behavior combination of "strong compensation, strong rating" means that the government offers sufficient quality rating to the farm products produced by the farmers plant farm products with different classes, and give farmers difference compensation based on that. In fact, this sort of strong rating behavior of the government also offers the references for the purchaser in the market to choose the price. In addition, because the government gives higher compensation to the farmers who plant the modern crops with high quality, which will compensate farmers' production costs to some extent, and make the price when farmers sell the farm products with high quality change, i.e. reduce the sales price of the high quality farm products to the level which is not too greatly different with the price of common farm products, which will make the sale of the high quality farm products extended to make farmers acquire the same income of the common farm crops when they plant the high quality farm crops. We can suppose the price is P_{11} ($P_0 < P_{11} < P_1$) here, and for the purchasers, their benefits $W_1 - P_{11} \cdot Q_1$ when they consume the high quality farm products may exceed their benefits $W_0 - P_0 \cdot Q_0$ when they consume the low quality farm products, so we can establish the following model.

INSERT MATRIX 3 ABOUT HERE

Through analyzing the Matrix 3 by the same method with Matrix 2, we can see that, because of the existence of higher government compensation U_1 , the $P_{11} \cdot Q_1 - C_2 + U_1 > P_0 \cdot Q_0 - C_0 + U_0$ exists, which make farmers who plant modern high quality crops more profitable than planting traditional low quality crops, and their behavior choice is be limited in the strategy of high quality. But the change of the purchaser's benefit induced by the decrease of the price of high quality farm products under strong compensation makes $W_1 - P_{11} \cdot Q_1 > W_0 - P_0 \cdot Q_0$ possible, which will strengthen that the purchasers by the high quality farm products. Obviously, whether for the purchaser or for farmers, the behavior combination of {low quality, low price} here is not the rational choice, and which may finally make {high quality,

hypo-high price} be the exclusive Nash Equilibrium under the mechanism of {strong compensation, strong rating}. As viewed from the actual angle, because the cost of organic farm products is far higher than the cost of green farm products, and the price of green farm products is hypo-higher than the price of organic farm products, so it is strongly operational to encourage and lead farmers to engage in the production of green farm products (not organic farm products).

4. Conclusions

The game behavior of various subjects exists broadly in the economic activity. In the quality management of farm products, the behavior game of relative subjects will also occur. On the theoretical layer, in this article, we simply analyze the problem that the general compensation system implemented by the government to plant farm products can not enhance the quality of farm products under the condition of the effective rating mechanism is deficient by the game theory, which is based on the reality that existing literatures about the analysis of farm products quality have not highly noticed these problems. The problem that the quality of farm products is low can be analyzed from the game view, because we think the application of the game theory in this problem can embody the objective functions of government, purchaser (market) and farmer and their limitations, and the theoretical analysis of the game theory can accord with the general description of the actuality to large extents. But we should point out that the choice and enactment of the game model and its variables are all based on the practice. In addition, the emphasis of the article is to utilize the game model to find the efficiency that the government redesign the compensation mechanism and rating mechanism aiming at enhance the quality of farm products, and the result indicates that the government behavior choice of {strong compensation, strong rating} is the effective strategy combination which may realize the equilibrium between the high quality of farm products and the hypo-high price which can be accepted by the market.

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The behavior choice of the government is {weak rating, weak compensation}

		Purchaser	
		High price	Low price
Farmers	High quality	$(P1 \cdot Q1 - C1 + U0, W1 - P1 \cdot Q1)$	$(P0 \cdot Q1 - C1 + U0, W1 - P0 \cdot Q1)$
	Low quality	$(P1 \cdot Q0 - C0 + U0, W0 - P1 \cdot Q0)$	$(P0 \cdot Q0 - C0 + U0, W0 - P0 \cdot Q0)$

Matrix 1

The behavior choice of the government is {weak compensation, strong rating}

		Purchaser	
		High price	Low price
Farmers	High quality	$(P1 \cdot Q1 - C2 + U0, W1 - P1 \cdot Q1)$	$(P0 \cdot Q1 - C2 + U0, W1 - P0 \cdot Q1)$
	Low quality	$(P1 \cdot Q0 - C0 + U0 - e, W0 - P1 \cdot Q0)$	$(P0 \cdot Q0 - C0 + U0, W0 - P0 \cdot Q0)$

Matrix 2

The behavior choice of the government is {strong compensation, strong rating}

		Purchaser	
		Hypo-high price	Low price
Farmers	High quality	$(P11 \cdot Q1 - C2 + U1, W1 - P11 \cdot Q1)$	$(P0 \cdot Q1 - C2 + U1, W1 - P0 \cdot Q1)$
	Low quality	$(P11 \cdot Q0 - C0 + U0 - e, W0 - P11 \cdot Q0)$	$(P0 \cdot Q0 - C0 + U0, W0 - P0 \cdot Q0)$

Matrix 3



English Education under the Context of Globalization

Meiying Song

Department of Foreign Language Education, School of Human Science, Economy and Law

Northwestern Polytechnical University

No.127, Youyixi Road, Xi'An 710072, China

Tel: 86-29-8806-9065 E-mail: maxun666@163.com

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Abstract

With the progress of globalization, China is forming increasing intimate relations with other nations. However, under the context of globalization, we must know each other quite well to promote cross-cultural communication, which requires that our English education follow the multi-cultural principle. On the one hand, we should know more countries who take English as their official or foreign language and their cultures. On the other hand, as China is playing a more and more important role in international affairs, we should focus more on the introducing China to people all over the world; hence, in English education, China's excellent traditional culture should also be introduced via English education.

Keywords: Globalization, Multi-cultural principle, Native culture, Foreign culture

1. Globalization

The word "globalization" first appeared in 1980s; however, its concept could date back to several decades or even centuries ago. Someone believes that globalization appeared one century ago when the Spanish, Englishmen and the Dutch established trade empire which generated the immigration of large scale. After the Second World War, the determination of western countries to consolidate international relationship becomes the foundation of current globalization. The collapse of protectionism stimulated capitals' free flow and paved a road for the appearance of cross national companies. The Internet and rapidly developing information industry further promote the world globalization process. The change of international economy exert great influence on a country's or an area's economy and a country's or an area's economy change also influences international economy. The Asia financial crisis in 1990s and current middle-east oil issue are a good prove thereto.

Economy globalization trivializes country borders and promotes the integration of markets of countries. Under the promotion of economy globalization, countries are increasingly having in-depth the political communication. The political lives of countries have something in common to some extent and the appearance of cross-national issues endows international organizations and international cooperation power with more and more power in international affairs.

Through globalization, cultures of each nation constantly break through the limit of their national cultural geography and modes by way of mutual communication, integration and compensation, go beyond national cultural border and win cultural recognition in human beings' criticism and accepting or rejecting, and continuously change national culture resources to shared resources for the humankind.

The marching of national culture to the world is a main reflection of cultural globalization. The gem and the best of national cultures are marching towards world stage and are appreciated and recognized by people of the whole world. The culture relics of specific nations have already become the treasure of the humankind.

The development of information technology provides suitable conditions for the global travel of cultures. The cross cultural communication is so prosperous thanks to the development of information and communications technology and the production and sales of cultural products is increasingly globalizing. The rapid development of network technology

provides solid platform for cultural globalization. These elements together advance national cultures of the world to freely communicate within extensive areas.

The benefits brought by globalization to human beings are obvious to all. Globalization shortens the distances among countries and areas and makes the world a global countryside. It promotes the development of world productivity, expedites the growth of world economy, and etc. However, in order to have a comfortable and easy existence and development on the earth, we need to know more about the countries and cultures lively performing on the world stage so that we could know ourselves and others well and win in all battles. It requires that in English education, we must face and accept challenges and accustom ourselves to the requirement of globalization.

2. The necessity of the coexistence of multi-cultures

With the development of globalization, some languages and cultures with stronger force spread rapidly and build their solid supreme position in world languages and culture jungles; some languages and cultures with weak force lose their vigor and energy with less and less people using them and gradually become dying or even distinguish. Such tendency is not conducive to the harmonious development of the world. As earlier as 19 July, 1937, it was pointed out in *Modern Language Teaching*, the No.11 suggestion of the sixth conference of international education conference held in Geneva, that “The aim of modern language teaching shall not only start from practice angle which is to cultivation the capacity to use language, but also and importantly, shall cultivate and make clear the education interests closely related with foreign cultures and promote the mutual understandings of different nations”. (Zhao, 1999) The concept of multi-culture education has been clearly put forward in the report in *The Contributions of Education to Culture Development* published by UNESCO in 1992 and the report also proposed that to serve all learners and citizens, this kind of education shall be designed to promote respect, mutual understanding of the diversity of cultures. “Multicultural education contains plans, courses or activities designed for all learners and these plans, courses or activities could, in education environment, promote the diversity of cultures and enhance the understanding of cultures from different groups. This kind of education could advance integration and academic success, build up international understanding and make it possible to fight against various exclusion phenomenons. Its aim is to develop from understanding their own culture, to appreciating cultures of their neighboring nations and eventually to appreciating world culture”. (Frost, 1987)

It is said in *National Words-Zheng Words* that “harmonious world generates tens of thousands of objects while if always being the same, this situation will not continue”. Nations and geography with different customs, traditions, hobbies, and religious believes constitute rich, colorful and harmonious world. The differences of nations constitute the harmonious world. Meilin Han said that “if this world does not have national features, it will be too dull”. “To combine water with water, who would like to drink it? If the musical instruments are of the same tune and sound, who would like to listen to them”? if it continues to be the same, the world will encounter the situation where “if always being the same, this situation will not continue”.

The coexistence of different civilizations is conducive to the long term and considerable progress of various multi-cultural patterns. Different civilizations could communicate and compensate each other to achieve common development, which is similar to the natural world. In the natural world, many species coexist and compete with each other, which is conducive to activating the genes of each living body so as to constantly increase their capacity of adjusting to new environment. The multi-culture patterns of human beings could provide each other theories and methods from various perspectives and activate and increase each other's creativity. The coexistent of multi-culture is beneficial for the harmony and stability of the world. The production modes, religious believes, points of views of a nation are the products of their living environment (including natural and social environment), which is to say that each civilization pattern has its root cause reason for existence. Because civilization has a corresponding relationship with its geography and people living there, culture becomes the mark for the existence of its main body (nation or national country). To deny or be against certain civilization is to, fundamentally speaking, ignore the nation or national country that creates and practices this civilization, which will certainly result in being opposed to this nation or national country and even lead to wars. Therefore, in current stage where the world is having more and more closed relationship, we should accept the reality of the coexistence of many cultures; express our respect and friendly attitude to other civilizations and civilization main bodies (nations or national countries) by means of dialogue, appreciation and mutual study. By this way, we could avoid estrangements or wars among nations or national countries resulted by civilization differences. Junren Wan, Chinese scholar pointed out, “Cultural traditions created by human beings have their external rich diversities. They are different and of various styles and are hardly possible to be unified. However, the various differences and competition of multi-cultures are not the catastrophe or tragedy of humankind. On the opposite, just these various differences and competitions constitute the true sources and power for human civilizations and create human beings and human beings' great culture. (Wan, 1999)

3. Cultural problems in current China's English education and strategies

3.1 *The lack of home nation's culture in English teaching materials*

With the constantly deepening of China's economy reform and opening up, the integrated power of China is increasing and China has become the focus of the world. The first stop of Olympic Games in China in 8 August, 2008, Shanghai World Exhibition Event, Boao Forum all prove to the world the power of China. However, it also brings us with challenges. China's economy has increasing closed relationship with world economy. As an important member of the world family, China is playing a more and more important role in world politics, economy, culture and diplomatism. It has become an important task for China's English education to help the world understand China and communicate to the world China's excellent culture and civilization. However, the existing English teaching materials in China, no matter it is for pupils or college students, are teemed with European and America senses, including western material cultures, values, customs and systems and hardly have contents about Chinese culture. However, high efficiency foreign language study depends on activating learners' learning interests and aims to train learners to use the language. To use English to describe things around learners is the key point of context teaching, which follows the principle of learning for use. (Jin, 2006).

Therefore, many Chinese scholars put forward in their papers that foreign language learning shall not only focus on target language culture. Professor Shichun Du once said, "My English learning benefits, to some extent, from Chinese learning and writing". Mr. Guozhang Xu achieved amazing achievements in linguistic researches in his late years. The reason is that he is not only a foreign language expert but also a man with profound Chinese knowledge; he keeps studying and accumulates knowledge gradually. Therefore, foreign language teachers shall consciously keep studying constantly, keep reading and writing. They shall not only improve their foreign language major accomplishments, but also improve their Chinese accomplishments and Chinese writing ability. It is said in *The Art of War* that "Know yourself and know you enemy, and you will fight a hundreds of battles with no danger of defeat". With the deepening of economy globalization, international communication is more and more frequent. If China's English education still has mother language culture lack, we could not avoid the awkward situation in cross cultural communication where "you give a peach in return for a gem". (Liu, 2008)

A professor of Stanford University made a statistical analysis. From 1986 to 1996, in the reports on China from five newspapers including New York Times and Washington Post, only one of the 12 are just and others are either unilateral or distorted or even have strong tendency of being against of China, which could be seen in the distorted reports of western media on "3.14" Tibet event. The reason is that the westerners are afraid of China's rapid development and are spreading "China threatening theory". What is more, the most westerners know few about the true situation of China and are controlled by the propaganda of the media. The author has some experience as foreign language tour guide. Through contacts with foreigners, the author found that they hardly know China. The propaganda work of China to the foreign countries is not sufficient. Materials about China are mainly routine tourism introduction on the basis of commercial base. For example, when foreigners go to visit the Terra Cotta Warriors, they would buy materials about Terra Cotta Warriors, however, these materials are only simple introduction of who discovered Terra Cotta Warriors and Terra Cotta Warriors diggings. Foreigners could only know Emperor Qin Shihuang and society, science and culture of Qin dynasty through tour guide's oral introduction. It is really a pity.

3.2 *The lack of foreign civilization and culture in English teaching materials*

Currently, English has gradually developed into a world language. More than ten countries, such as the UK, the US, Canada, Australia, New Zealand, Ireland, are taking English as their mother language, more than 70 countries and areas take English as their second language, and more than 100 countries take English as the first foreign language in the education of various schools. About 375 million people use English as mother language and about 375 million people use English as second language. In addition, about 750 million people frequently use English as foreign language. The articles used and cultures and civilizations introduced in English teaching materials China, no matter it is for English majors or non-English major, are all about main English using countries, such as the US, the UK, Canada, New Zealand, Australia and we could hardly see introductions on other English using countries. With the expediting of world globalization, the relationship of countries is closer and closer, which requires us to understand the customs and traditions of communication objects so as to avoid culture shock resulted from the difference of nationality, nation, and political systems.

3.3 *Corresponding strategies*

In treating western thoughts, cultures and science and technology, we have been constantly insisting on the principle of "learning from foreign countries for practice in China". This principle could also be applied to foreign teaching in China. We absorb new language culture research outcomes and at the same time, we need a suit of teaching materials suitable for foreign language teaching to express China's traditional culture with foreign language. The western world has English and American literature, the Bible and western philosophy thoughts. Then, why could not we use English to

describe China's traditional culture and literature works? We could let learners to know the English expression of Confucius who are admired also by the westerners and the English expression of the four famous works of China. The western world has books on idioms, phrases, proverb origin and various customs and festivals. Hence, we should also have works that introduce Chinese and excellent traditions of Chinese peoples. By this way, we could not only help English learners perfect their foreign language expression ability and become the envoy to spread Chinese cultures, but also provide foreigners with rich materials to understand Chinese culture so as to reach the aim of cultural communication. This is the way for Chinese foreign teaching to promote the development of science and culture career of China, to truly carry forward China's excellent cultures, and to smoothly establish the bridge and tache for international communication.

Some famous scholars in the field of foreign language field have already realized this abnormal situation and start to reexamine cultural relationship of China and the western world and to conduct reform. According to the introduction of profession Shouren Wang, when conducting course setup reform, the Department of English of Nanjing University added two courses, "western thoughts and culture" and "Chinese traditional thoughts and culture". The teaching aim of the former is to help students to have a general understanding of the development history of western civilization and basically know the basic concepts of western culture and thoughts by way of studying main works of thinkers of Greece, Rome and other western countries so as to help students deepen their ability to analyze and tell the difference of Chinese and western culture. The teaching aim of the later is to help students to further understand the soul of Chinese culture by way of studying Chinese history, philosophy and religion so as to make comparison analysis on Chinese and foreign cultures. The teaching outline of this course specially mentions that students need to "master the English expressions of Chinese culture expertly", so as to introduce China effectively and comprehensively and let foreigners understand Chinese culture. It also complies with the demand of China and world development.

For the problems brought by the lack of foreign culture, the author believes that the best solution is to open world culture appreciation and analysis course to students so as to let them have chance to appreciate excellent cultures of various countries and nations and help them overcome cultural shock in cross cultural communication.

4. Conclusion

The progress of world economy and culture globalization makes the contacts among cultures closer and closer while the sensitivity of culture is enlarging too. The diversity of cultures requires people to view and treat cultures with higher, larger and further view that goes beyond culture difference and asks people to treat education through a new multi-element view. We need to cultivate world citizens who have democratic, respect, tolerate, equal, free and understanding point of views. In order to be accustomed to the process of globalization and the increasingly important position of China in international stage, foreign language education must follow the principle of multi-cultures. For one hand, students need to fully understand the cultures and civilizations of various nations and national countries that are active on the world stage and at the same time need to inherit China's excellent traditional culture and to show it in foreign language education. Eventually, we could cultivate foreign language talents who have cross cultural communication ability. History shows that only when human beings have more extensive and open view could they understand the mutual influence degree of various nations during different eras as well as its significant functions on the history progress of human beings; only when human beings have global and entire human kind extensive view and stronger cross cultural accustoming ability could they promote the harmonious coexistence and common progress of various nations worldwide.

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Levels of Job Satisfaction amongst Malaysian Academic Staff

Fauziah Noordin

Faculty of Business Management, Universiti Teknologi MARA

40450 Shah Alam, Selangor, Malaysia

Tel: 60-3-5544-2710 E-mail: fauziah716@salam.uitm.edu.my

Kamaruzaman Jusoff (Corresponding author)

Faculty of Forestry, Universiti Putra Malaysia

Serdang 43400 Selangor, Malaysia

Tel: 60-3-8946-7176 E-mail: kjusoff@yahoo.com

Abstract

A study of job satisfaction of academic staff of a public university in Malaysia used the 7-item general satisfaction scale in a survey to determine the level of job satisfaction of the academic staff. The results indicated that overall the academic staff of the university has a moderate level of job satisfaction. In addition, current status, marital status, age and salary appear to have significant impact on the respondents' level of job satisfaction. Implications on the study's findings to the management of the university are also discussed.

Keywords: Job, Academia, Satisfaction, Education, Public university

1. Introduction

Education is one of the most important institutional organisation of a nation. It oversees issues on national agenda. Its effective running depends firmly on its coordination in the direction of societal expectation. Successful educational programs lie on the important contributions of effort, involvement, and most importantly on the overall teacher (academic staff) professionalisation. Academic staff job satisfaction, commitment, and retention are crucial to effective schools (academic institutions). A positive and healthy university climate translates into increased academic staff job satisfaction. A healthy university climate will not only increase the job satisfaction of academic staff but it will at the same time improve the learning environment and increase the productivity of the university. In addition, it becomes significant to job satisfaction because commonly held visions and beliefs, coupled with a positive environment, carry with them energy for success.

The concept of general satisfaction is defined as the extent to which a worker feels positively or negatively about his or her job (Locke, 1976; Odom, Boxx, and Dunn, 1990). It refers to employees satisfaction with the general aspects of work situation such as pay, supervision, the firm as a whole, the job itself, fellow employees and prospects of advancement. Academic staff job satisfaction is a predictor of academic staff retention which has an effect on school effectiveness. Academic staff job satisfaction studies, nevertheless, reveal wide ranging differences in determining factors contributing to job satisfaction. Academic staff job satisfaction influences job performance, motivation, morale, attrition, and ultimately students' performance. Hall, Pearson, and Carroll (1992) in their study on the area found that teachers (academic staff) who plan to leave the teaching profession can be distinguished from those who plan to stay by the pattern of their work related attitudes, perceptions, and reactions. Borg and Riding's (1991) study on primary teachers reveal among others that job satisfaction and stress are related. Other researchers found that effective teachers place significant emphasis on student-relationships (Gay, 1995; Laden and Billings, 1994). Heller, Rex, and Cline (1992) reported that variance in teacher satisfaction can be accounted for by satisfaction in meeting students' achievement. Ability to interact with colleagues and academic staff, was also cited as the most valued form of professional stimulation (Yee, 1990). Further research on this area also reveals that support and interaction have some influence on satisfaction and retention among teachers (Boland and Selby, 1980; Theobald, 1989). In their investigation, Popkewitz and Myrdal (1991) found that teacher collaboration leads to increased feelings of teacher effectiveness and

satisfaction.

The job expectations of a university's academic staff have shifted in recent years and seem to be growing exponentially leading to a combination of increased job related stress for the academic staff, and decreasing levels of morale and job satisfaction. Research suggested that academic staff's job satisfaction have significant impact on the job performance of the academic staff and also the academic performance of their students. Universities and academic staff need to work together to provide an atmosphere that is conducive to the education process. Academic staff attitudes are affected in part by workplace conditions such as a positive and safe work environment, a supportive administration, career progression, salary, work teams, peers, and the job itself. In addition, it is also important to academic staff, and equally connected to job satisfaction has been the need for autonomy. When decisions effecting the work environment, or revolving around university improvement are being discussed, having one opinion solicited and feeling that some value is placed on that opinion provides academic staff with some ownership in the resulting decision, and along with it a desire to help make the decision a success. On the other hand, when universities make these decisions and it is clear that the academic staff opinions are neither needed nor wanted, or if there is no value placed on them, the academic staff would feel degraded and demoralized and there is subsequently no motivation to support the decision (Briggs and Richardson, 1992). This is an indication of the presence of job dissatisfaction and these may lead to negative consequences such as low productivity, voluntary turnover (among high performers), voluntary absenteeism, tardiness, apathy, low job performance, etc. The bottom line is it may lead to a lose-lose situation which is detrimental to the health of any university.

Based on the discussion above two research questions have been formulated namely, what is the level of general satisfaction of academic staff of the university and what are the individual differences that could explain the variance in the academic staff's general satisfaction?

2. Methodology

All faculties, academic centers, and branch campuses of the selected public university were invited to take part in the study. A total of 10 faculties, one academic center, and ten branch campuses have consented to participate in this research project. The respondents were then chosen randomly by the participating faculties, center, and branch campuses. A total of 20 sets of the questionnaires were mailed to the participating faculties, academic center, and branch campuses. A total of 360 questionnaires were distributed and 300 completed questionnaires were returned to the researchers. The final total sample size was 237 sets of completed and usable questionnaire. This gave a response rate to 79.06%.

The 7-item general satisfaction measure (Taylor and Bowers, 1972) was used in this study. Responses on the general satisfaction measure are on a 5-point disagree-agree scales, and the average of the five responses is calculated. The questionnaire for this survey was subjected to rigorous screening and had undergone several modifications. In seeking answers to the research questions, descriptive statistics of the construct was computed. Internal consistency of the scales was tested by using the Cronbach's alpha coefficient (Cronbach, 1951). To test the effect of demographic variables on the constructs used in the study, a series of two-tailed independent group t-tests and one-way between groups ANOVA with post-hoc comparison analyses were conducted.

3. Results and discussion

The analysis of the demographic variables indicates that there are more female than male respondents. The majority of the respondents belong to the 31 – 44 years age group (53.2%) and also in the "Married" category. Seventy-four percent of the respondents have Master as their highest education level and majority of them (52.0%) were educated in western countries. The work demographic shows that the 50% of the respondents have worked for the university for more than 10 years and majority of them have worked for less than three organizations. Annual salary of the subjects is mostly in the "greater than RM54000" bracket. The general satisfaction measure showed acceptable level of reliability, i.e., 0.7931. Nunnally (1967) has argued that reliability estimates of 0.50 to 0.60 are sufficient for basic research.

General satisfaction score of the respondents was at 3.82 of the 5-point Likert scale. This indicates that the respondents were moderately satisfied with their general job satisfaction. This result is not consistent with previous findings on general satisfaction (for e.g., Harrison, 1995; de Boer, 1978; Griffeth and Hom, 1987; Cole, 1979). A finding which has appeared with remarkable consistency in comparative survey research on industrial attitudes is that the levels of job satisfaction reported by Japanese are lower than in the western industrialised countries. Whether the workers studied are blue collar or white collar, whether employed in manufacturing or service industries, the Japanese respond to questionnaires and interviews that they are less content with their jobs and work lives than Americans and Europeans. For example, Azumi and McMillan (1975) survey of Japanese, British, and Swedish workers in 12 plants in each country found that only 39% of the Japanese to be satisfied with their jobs as contrasted with 70% of the British and 83% of the Swedish workers (see Azumi and McMillan, 1976). Additional comparisons of Japanese and American workers by Pascale and Mcguire (1980) and Naoi and Schooler (1985) also show that Japanese are significantly less

satisfied with their jobs. Harrison (1995) observes that Singaporean managers report a lower level of satisfaction with their jobs than did their Australian counterparts. This was predicted from the cultural characteristics of Singaporean society as compared with Australia. Between-cultures studies of job satisfaction have generally found that collectivists have lower levels of job satisfaction than the individualists (Lincoln, 1989). One study (Hui, Yee, and Eastman, 1995) has found job satisfaction to be higher for collectivist employees, but it should be noted that the study was a within-culture and not a cross-cultural one. In her study Fauziah (2000) found that Australian managers (individualist culture) appear to have a significantly higher level of job satisfaction than their counterpart in Malaysia (collectivist culture). Fauziah and Anizah (2003) found that Malaysians who are reportedly as having a collectivist culture (Hofstede, 1980; 1984) have moderate level of job satisfaction. Hence, the findings on this area are still inconclusive. In seeking answers to this contradictory finding on general satisfaction, this study assessed the means on individual items of the general satisfaction measure with the intention of identifying the significance of each item (Table 1).

The individual means of each statement in the measure indicate that the only statement that has a mean of greater than 4.00 is statement #3: "All in all, how satisfied are you with your job." This clearly indicates that the respondents are highly satisfied with their job but the same does not hold true for the other statements in the measure which only indicate a moderate level of satisfaction. Therefore, the findings on general satisfaction of this study are not consistent with findings in the literature. To determine whether the perceived differences between means in relations to general satisfaction based on gender and country of education of the respondents were significant or not, two sets of t-test were conducted. General satisfaction showed no indication of significant differences between genders. Similarly, general satisfaction showed no significant differences on whether the respondents had their education in the Asian or Western countries.

Overall, there is no significant differences between male and female respondents with regard to general satisfaction (Table 2). In other word, general satisfaction does not increase as a function of gender.

Overall, there are no significant differences between male and female respondents with regard to general satisfaction. In other word, general satisfaction does not increase as a function of gender. Nevertheless, a detailed t-test conducted on the individual statements of the measure indicate that the male respondents have a significantly higher level of general satisfaction than their female counterparts in terms of their satisfaction towards the university compared to other organisations. In addition, the male respondents (Table 3) felt satisfied with their chances for getting ahead in the university in the future ($p = .02$).

Similar to t-test on gender, overall, there are no significant differences between Asian and Western educated respondents with regard to general satisfaction. In other word, general satisfaction does not increase as a function of country of education. In addition, a detailed t-test conducted on the individual statements of the measure indicates that "country of education" have no significant impact on the respondents' perception toward general satisfaction as indicated in Table 4. No significant differences were detected in any one of the statements of the measure (Tables 2, 3 and 4).

The One-way between Groups ANOVA with Post-hoc Comparisons results for general satisfaction (see Table 5) indicate that there are significant differences between the levels of general satisfaction between respondents in the age category. The academic staff in the Associate Professor group indicates a significantly higher level of job satisfaction than their Senior Lecturer counterparts. It appears that those academic staff who were in the >44 years of age experience a significantly higher level of general satisfaction than those in the 31 – 44 age group. In addition, those in the "Never married" category and in the "Married" category show a significantly higher level of general satisfaction than those in the divorced group. Finally, respondents whose annual basic salary is ">RM54, 000" have significantly higher level of general satisfaction than those in the "RM34,000 – RM38,000" salary brackets (Table 5).

Mathieu and Hammel (1989) and Bateman and Strasser (1984) have shown that older employees tend to be more satisfied and more committed to the organisation due to adjustment and investment processes. Mannheim, Baruch, and Tal (1997) found age to be positively related to job satisfaction. Evidently, for the type of highly educated personnel in their sample, no disengagement processes related to aging are indicated by general satisfaction (see also Mannheim and Reiss, 1981) - the older age group remains highly committed to its work role and organisation, and is highly satisfied. Griffin and Bateman (1986) report a positive relationships between job satisfaction and age, income, and occupation in a national sample whereas demographic variables such as gender and race seem to play little role in job satisfaction. The results in present study support the existing findings mentioned above. Therefore, current position, age, marital status, and salary appear to be the factors that influence general satisfaction for the respondents at the individual level analysis.

Based on the findings of previous research on organisational climate, universities that conduct organisational climate surveys may experience one or more of the following benefits

- *Employee Job Satisfaction.* A positive and healthy university climate translates into increased academic staff job satisfaction and productivity.
- *Employee Involvement.* By administering an organisational survey, academic staff are given the opportunity to be involved in the university at different level that is typically defined in their job descriptions. Research has shown that employees who are more involved in the organisation may also be more satisfied with the job, miss fewer days of work, stay with an organisation longer, and perform better on the job.
- *Positive Work Outcomes.* To date, a significant amount of evidence in the literature has been accumulated documenting the importance of the work environment in relation to organisational performance. In general, research has shown that factors in the work environment are related to outcomes such as employee motivation, job satisfaction, intentions to quit, job performance, and even organisational productivity. In addition, the emerging area of research has indicated that organisational climate can influence customer perceptions of the quality of products or services delivered by an organisation.
- *Communication Forum.* In many large universities it can be very difficult to communicate with the majority of academic staff. The management of the universities may only have limited amounts of time to talk to the academic staff about day-to-day activities. Conversations regarding an academic staff's work environment can fall to the wayside, and in some instances, never take place. Organisational climate surveys that occur on a scheduled basis (e.g., annually, biannually, etc.) can be a more efficient way for the management to gather important information.
- *Industry Comparison.* Universities often look at other universities when determining university policies and procedures. It is quite common for universities (especially in developed countries) to "explore the market" or conduct "benchmark" studies when considering issues such as marketing strategies, new academic programs, etc. A common question asked is "How do we compare to others?" One advantage of conducting an organisational climate survey is that it can provide an opportunity to compare the university's work environment to that of other universities.
- *Proactive Management.* Administering organisational climate surveys allow the management of the university to be more proactive in managing the academic staff and work environments. When used on a scheduled basis, organisational climate surveys can help pinpoint problems areas within the work environment before they grow into a crisis needing immediate attention. Problems that require a reactive posture interrupt the normal workflow, and typical cause delays in providing products or services to customers.

For many universities, the proper implementation of an organisational climate survey can provide valuable information that can be use to guide and increase its success. However, universities that choose to implement a survey must be prepared to respond to both positive and negative results, and work with employees, in this case, the academic staff, to make improvements in the work environment. Failure to respond to employee feedback can ultimately increase the number of workforce problems experienced within a university and this can lead to negative repercussion to the university concerned. To be a world class university, the university needs to have world class academic staffs that are dedicated, competent, knowledgeable, and above all committed to the university and their career. But, all these attributes may eventually diminish if these academic staff perceived that they are not experiencing job satisfaction at the university. Hence, it is strongly recommended that the university should consider conducting a university-wide organisational climate survey because the data gathered can provide valuable information that can be use to guide and increase its success in achieving a world class university in the future.

4. Conclusion

Overall, the findings of the present study have provided answers to the research questions. The findings suggest that the academic staff of the university have a moderate level of general satisfaction. The demographic variables that is, current position, age, marital status, and salary appear to represent antecedent conditions of the general satisfaction. These findings have practical implications for the management of the university. Academic staffs that have different levels of job satisfaction may require different management styles and motivational strategies for optimum organizational effectiveness. At the same time the management of the university needs probe into the causes of low general satisfaction among its academic staff. This is of prime importance because research findings have consistently found that job satisfaction has significant impact on employee commitment to the organizations, job performance, and motivation. At the same time employees with high job satisfaction would lead to lower turnover and absenteeism. One way in which the management of the university can identify the factors that cause low job satisfaction is by using Organisational Climate Survey. Organisational climate can be described as a combination of shared history, expectations, unwritten rules and social mores that affects the behaviour of everyone in an organisation. Or, more simply, it is a set of underlying beliefs that are always there to colour the perceptions of actions and communications. Organisational climate assessments are accepted today as a vital component in helping organisations determine employee perceptions and feelings about their work groups, leadership, work environment, decision-making, job satisfaction, etc. of departments / faculties and the university at large. The most important purpose of the survey, though, is not just to

gather the data but to use the data to identify opportunities for improvement and, ultimately, to help evaluate the effectiveness of changes already implemented.

Several limitations exist in the present study which warrants review. First, the results of this study must be qualified in terms of the samples that were used. Extensive sampling was beyond the resources of the researcher. To enhance external validity, future research efforts should obtain a representative sample from several universities, ideally using longitudinal research design to establish causal relationships among the variables. Second, since only academic staff was used as samples in this study, this raises the issue of generalisability of findings. More research is needed before firm generalisable implications for academic staff can be drawn. Generalisability of the results of these analyses for non-academic staff remains an open empirical question. Additional replication using a more careful comparison by types of employees and types of occupation would be useful. Finally, a possible limitation of the study is some method bias resulting from the use of a common instrument (questionnaire). However, this is unlikely to be a serious problem because Spector (1987) has shown that method bias is generally not a problem with well-developed instruments. The high alpha levels are evidence of the soundness of the instruments in the present study. Nevertheless, future research should combine the use of questionnaire method with observation, and field experimentation. In addition, longitudinal investigation could be conducted to determine whether variable effects change over time.

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Table 1. Individual Means of the Measures

Items	Means
1. All in all, how satisfied are you with the persons in your work group?	3.86
2. All in all, how satisfied are you with your immediate superior?	3.84
3. All in all, how satisfied are you with your job?	4.26
4. All in all, how satisfied are you with this organisation, compared to most others?	3.93
5. Considering your skills and the effort you put into your work, how satisfied are you with your pay?	3.57
6. How satisfied do you feel with the progress you have made in this organisation up to now?	3.80
7. How satisfied do you feel with your chances for getting ahead in this organisation in the future?	3.44
Total Mean	3.82

Table 2. Independent Groups T-Tests

Variables	Mean	Std. Dev.	T-Value	2-tail sig.
Gender			-1.711	.088
Female	3.7622	.6086		
Male	3.8970	.6334		
Country of Education			.301	.764
Asian	3.8195	.6001		
Western	3.7955	.6440		

Table 3. Individual Means of the Measures (Gender)

Items	Means (Female)	Means (Male)	T-Test	Sig.
1. All in all, how satisfied are you with the persons in your work group?	3.83	3.91	-.772	.441
2. All in all, how satisfied are you with your immediate superior?	3.84	3.82	.198	.843
3. All in all, how satisfied are you with your job?	4.27	4.25	.274	.784
4. All in all, how satisfied are you with this organisation, compared to most others?	3.84	4.07	-2.180	.030
5. Considering your skills and the effort you put into your work, how satisfied are you with your pay?	3.45	3.74	-1.899	.059
6. How satisfied do you feel with the progress you have made in this organisation up to now?	3.75	3.90	-1.295	.197
7. How satisfied do you feel with your chances for getting ahead in this organisation in the future?	3.32	3.60	-2.190	.029

Table 4. Individual Means of the Measures (Country of Education)

Items	Means (Asian)	Means (Western)	T-Test	Sig.
1. All in all, how satisfied are you with the persons in your work group?	3.92	3.78	1.296	.193
2. All in all, how satisfied are you with your immediate superior?	3.97	3.69	2.296	.023
3. All in all, how satisfied are you with your job?	4.21	4.27	-.763	.446
4. All in all, how satisfied are you with this organisation, compared to most others?	3.99	3.86	1.233	.219
5. Considering your skills and the effort you put into your work, how satisfied are you with your pay?	3.44	3.66	-1.421	.157
6. How satisfied do you feel with the progress you have made in this organisation up to now?	3.74	3.85	-.957	.339
7. How satisfied do you feel with your chances for getting ahead in this organisation in the future?	3.48	3.41	.497	.620

Table 5. One-Way between Groups ANOVA with Post-Hoc Comparison

Variables	Mean	Std. Dev.	F-ratio	F-probability
Current position			4.06	.001
Junior Lecturer	3.8912	.6301		
Senior lecturer	3.6502 ^a	.5268		
Lecturer DM53	4.0195	.7030		
Associate Professor	3.9474 ^b	.7307		
Professor	4.2500	.5393]		
Other	4.1964	.4826		
Marital status			4.128	.017
Never married	3.8519 ^{aa}	.5128		
Married	3.8202 ^{aa}	.6282		
Divorced	2.5714 ^{bbb}	.0000		
Separated	-	-		
Widowed	-	-		
Age Group			5.625	.004
< 31 years				
31 – 44 years	3.7823	.5329		
> 44 years	3.7280 ^a	.5954		
	4.0398 ^b	.7014		
Annual basic salary			2.845	.007
< RM24,000	3.8929	.6826		
RM24,000 - RM28,000	3.8278	.6646		
RM29,000 – RM33,000	3.6316	.4320		
RM34,000 – RM38,000	3.5775 ^a	.5125		
RM39,000 – RM43,000	3.8214	.5071		
RM44,000 – RM48,000	3.7302	.4793		
RM49,000 – RM53,000	3.7640	.5773		
>54,000	4.0612 ^b	.7440		

Note: Those with different superscripts differ significantly ($P < .05$). Those that share a superscript, or for which no superscripts appear, are not significantly different from each other ($p \geq .05$).



Studying the Factors Influencing the Legal Development in Ancient China

Xuzhi Shang

School of Law and Humanities, Tianjin Polytechnic University
No.399 West Binshui Street, Xiqing district, Tianjin 300387, China
Tel: 86-22-8395-6965 E-mail: shangxuzhi@163.com

Abstract

The legal development of ancient China has undergone a very brilliant period and so far it still has attracted a number of Chinese and foreign scholars. What is the reason why the Ancient Chinese law can develop? This text indicates that the agriculture-based civilization, autocratic centralization, patriarchal society and other factors are the vital factors that lead to the ancient Chinese legal development with features of its own.

Keywords: Ancient times, Agriculture-based civilization, Autocracy, Patriarch

The special humanistic and geographical environment of ancient China has conceived a distinctive and unique legal culture. And the nature of cultural heritage makes the legal culture produce an inestimable impact by now on people's mind, cognition, value, belief and behavior. The following are the factors that have played important role in the legal development of ancient China.

1. Agriculture-based civilization affected the legal developments in ancient China.

Montesquieu once said that laws have a very close relationship with ways of life of all ethnic groups. A nation engaged in the commercial and navigation needs more codes and more scope than that content with cultivating the land (Montesquieu, 2003, p.325) Dynasties of ancient China are typical in agriculture and agriculture is the basis to govern the country. Moreover, self-sufficient small-scale peasant economy is the most basic economic form in ancient China. This situation is bound to have a profound impact on the legal development in ancient China.

The first thing that agricultural countries are primarily concerned with is the development of agriculture, which is put in a prominent position. As the old saying goes, "the saints know what the country needs most. Laws and decrees require the people center around the farming. If people cling to farming, the folk customs would be simple and easy to be led on the right way". "Only when a saint rules a country, he can be dedicated to agriculture". (Works of Shangrang) It can be seen that the ancients do not only realize that the most important thing to govern a country is to deal with farming but also know the importance of agriculture. However, in an ancient society of China when the agricultural productivity is under developed, the agricultural efficiency can not be raised through technology but blesses of Heaven. Thus such thoughts as harmony of man and nature, King Heaven and Heaven as law, have come into being. It is true that there is a factor of thought of divine law. But long-term experience and inference of agriculture can not be ignored either. Such an ideology has affected the establishment of legal institution. For example, in Yueling of Book of Rites, there is a good combination of agricultural activities of seasonal regulations, taboos and advocacies with state governance. It provides that the ceremony of cultivating should be held and at the same time no warlike operations should be undertaken at the beginning of the spring season. In the middle of the spring season when "the young buds are kept and those more advanced is stopped from being disturbed", "Orders are given to the officers to examine the prisons; to remove fetters and handcuffs; that there shall be no unregulated infliction of the bastinado; and that efforts shall be made to stop criminal actions and litigations". In the first month of summer season when "delicate herbs die and it is the harvest time of the wheat", "cases are decided for those that the punishments are light; those of small crimes are made to do short work, and those who are in prison for slight offences are liberated". In the mid-summer season when days are hot, "leniency should be shown to prisoners charged even with great crimes, and their allowance of food be increased". That means prisoners' living conditions should be improved. In the autumn season when wind becomes cold and strong and crops are gathered in, "orders are given to the proper officers to revise with strict accuracy the laws about the various punishments. Beheading and the other capital executions must be according to the crimes without excess or defect".

When winter comes, “officials at every level hurry on the decision and punishment of criminal cases, wishing not to leave them any longer undealt with”. Dong Zhongshu, a great Confucian scholar of Han dynasty, has an extreme explanation of the idea. He said that “a ruler has four important periods of governance, which is similar to the four seasons in a year. That is to say, what nature has is what human beings possess. Celebration can be held in spring, reward in summer, punishment in fall and execution in winter”. Dong Zhongshu’s viewpoint of harmonious nature and man is not only accepted by the rulers at that time but also acknowledged by the later generations. And even in Qing dynasty there is a system of execution of death penalty in autumn and winter. It is rare to find in other countries that policies and decrees are arranged according to seasons, as reflects the influence that agricultural civilization gives to ancient legal system in China.

In addition, agriculture-based civilization determines the national character of farming peoples, for instance, loving one’s native land and hating to move, the customs of emphasizing experience, tradition and stability, which also affects the legal growth of ancient China.

As far as legal forms are concerned, although different dynasties in ancient China have other forms, the most important and principal one is the written code, which is inherited from dynasty to dynasty. For example, Nine Chapters Law of Han Dynasty mainly copies the Statue Book. Criminal Law of Song Dynasty is from the Criminal Law of Tang Dynasty and Law of Qing Dynasty is from Law of Ming Dynasty.

As for style of law, there are 6 chapters, 9 chapters, 18 chapters, 20 chapters, or 12 chapters, different from one another. But the Code Table, which is similar to the General Principals of modern criminal law, has been put as the end one in the back of the code since the Statue Book of Warring States period and not until Criminal Law of Wei Dynasty, is it renamed Name of Punishment and placed in the first chapter. The small reform of the layout should have cost more than 600 years. And the feature of legal system in ancient China that tradition can not be easily changed can be distinctly seen. Owing to this, legal reform also becomes extremely difficult and advocates of legal reform of ancient dynasties are often under enormous pressure, and face death at every turn, Deng Xi, Shang Yang, Li Si, and Chao Cuo are the good cases in point.

As to the legal content, the typical farming nation obviously calls for much less the laws than the European countries where the commercial economy is more developed. Long-term emphasis on farming and suppression of commerce lead to the weak growth of ancient Chinese civil and commercial Law because in ancient China where commercial economy is not developed, the use of criminal law is sufficient to solve the vast majority of disputes in society.

For a long time of expectation and dependence on agriculture, the ancient regimes are more concerned about the flood and drought, which give a direct impact on agricultural production and at the same time affect the prosperity and stability of the society and country. So every dynasty take the task of managing flood and drought as the major mission and put it as the law, which becomes one of the features of the ancient legal development. In ancient China, legal provisions relating to flood control, water conservancy construction are numerous. Early in the Qin Dynasty there are such legal documents as Works Law, Corvee Law and Law of Minister closely related with the water conservancy project. There is Xing Law in Nine Chapters Law of the Han Dynasty, specialized in water conservancy. In Ming and Qing dynasties, Construction and River Defense are specially set in Works Law. In addition, there are a lot of separate regulations related to water conservancy projects in every dynasty, such as Water Decree in Han Dynasty, and Regulations of the Ministry of Works in Qing Dynasty, etc.

2. Autocratic centralization affected the legal development in ancient China.

As we all know, ancient China is an autocratic country with highly centralization. The political system has profound social background. In Chinese history, West Zhou Dynasty has a brilliant period of system of enfeoffment, which leads the dynasty to the peak of slavery. However, system of enfeoffment resulted in the chaos of the ducal states in the Spring and Autumn Period and the Warring States Period. It is the First Qin Emperor that unites the world by means of centralization. Centralization prevails over the enfeoffment in the first round of bout. The second round happens in the early years of West Han Dynasty. The kings belonging to royal family or not who were infeudated in the early Han Dynasty had eventually become centrifugal force in the course of its development. And it is Emperor Wu that won the kings and maintained the unity of the country with power centralization, thus creating a glorious Han. Centralization defeats enfeoffment in the second round of contest. Since then, the concept of centralization of power has been identified and accepted by people. Furthermore, the typical agricultural civilization is in the pursuit of stability, unity and harmony, which calls urgently for a strong core and powerful leadership. Therefore, a strong centralized government headed by the emperor has become an inevitable choice in history, as have had a very far-reaching influence on the legal development in ancient China.

First of all, in an autocratic centralized government, the central question that legal development concerns is how to maintain imperial power and the centralized rule. For this purpose, the establishment and reform of administrative institution had been strengthened. If administrative legal bodies are examined of the different dynasties in history in a

systematic way, it can be found that the organization system, powers and functions of the administrative bodies, particularly the central ones would be adjusted to meet the need of the rulers in order to better safeguard the imperial rule. Indeed, the huge state machinery needs effective work of government officials at all levels to obtain the efficient operation. In order to ensure their effective work, how to govern officials has become a feature of ancient Chinese administrative law. Institution of Governing officials is so strong and advanced that the ancient Chinese law is narrowly referred to as the Official Act. Economically, great efforts are made to promote emphasizing farming, restraining commerce, prohibiting smuggling, franchising and restricting foreign trade to preserve the basic natural economy that feudal autocratic rule depends on. A good case in point is the policy of suppressing commerce in Han, Ming and Qing Dynasties. On the aspects of criminal law, many crimes of offending the royal power and the interests of emperors are provided such as lese majesty, and crime of breaking into the palace door, etc. In the judicature, it is not uncommon that emperors interfere with the judicial in different dynasties and many system of joint trial are created such as prison-checking system, autumn assizes, grand instance, hot-trial, court inquisition, joint inquisition of three or nine ministers, etc.

Secondly, the centralization of absolutism affected the establishment of the concept of “supremacy of law”. In legislation and administration, although in the ancient society, the judicial system of organizations at different dynasties, especially the central judicial organization are comparatively sound, the administrative officials have judicial power at the same time, which is a typical feature of the legal development in ancient China. Besides, there are emperors and the royal power that are beyond the law. Emperors and royal power can not only determine the establishment or the abolition of the law, but also greatly affect the law enforcement. In many dynasties, there exist cases that emperors invalidate laws with their words instead. For instance, Liu Bang, the emperor of Han, made the Vows on A White Horse, establishing such a rule that dynasties not belonging to Liu family should be overthrown. There is the activity of “Compiling Orders of Emperors” and “using Orders of Emperors instead of laws” in Song Dynasty. And Zhu Yuangzhang, the first emperor of Ming Dynasty, compiled the great imperial mandate in person. There are two ways by which the imperial power may affect the enforcement of laws. One is to interfere with the judiciary with various activities of joint trials. The other is to give a direct influence through the direct appeals. Such a social reality does not make “the supremacy of law” generally recognized by people at all. Thus the “unified law” was maintained stably and chronically.

Thirdly, centralization of absolutism leads the ancient legal thoughts to the framework of the Confucian idea. There is a period of freedom of thoughts in the history of China, namely, hundreds of schools of thoughts in the Spring and Autumn period. However, the situation does not last for quite a while. It ends with the unification of Qin and Han Dynasties because political unification requires ideological infirmity. “Taking law as religion and officials as examples to learn from”, raised in Qing Dynasty, is a hard blow on the free research on laws in the Spring and Autumn Period. Later, Han dynasty adopts Dong Zhongshu’s thought of “proscribing all non-Confucian schools of thought and espousing Confucianism as the orthodox state ideology”, which ensures the guiding position of Confucian thought to the legal development. The jurists of the later Jin, Tang, Song and Ming Dynasties are all on the orbit of taking Confucianism as a guide. Especially since Song Dynasty, with the increasing strengthening of autocracy, the scope of the legal research has become narrower and narrower and is confined in the framework of Confucian thought. Such situation lasted till the end of Qing Dynasty.

3. The patriarchal society affected the legal development in ancient China.

Since the West Zhou Dynasty in China, a set of complete and strict patriarchal system had been established. In fact, ancient Chinese society is also the strict hierarchical patriarchal society, which had produced profound influences on ancient Chinese legal development. Its manifestations are as follows:

First of all, the patriarchal society affects the equal application of ancient laws and makes the ancient legal system bear the characteristics of different hierarchy. A scholar once said, “patriarchal society is hierarchical, which emphasizes the difference of identity and treatment. Thus the society as a whole shows grades and order like a pyramid. Their existence is bound to result in the inequality in law enforcement, which can be seen everywhere in the ancient Chinese legal system. It can be demonstrated primarily as the systems that different classes have different chances to participate in politics and the same crimes receive the different punishment.

The ancient Chinese society is primarily divided into the upper and lower classes. And more opportunities are given to the upper class to participate in social activities. In ancient China where the social activities are relatively few, the most important way to take part them is to take official career. System of Ancient Chinese official career is conducive to the upper class. For instance, inheritable position of Qing official and nine-rank system of selecting officials make the lower class participate in social activities impossible. Imperial examination system from Sui Dynasty to Qing Dynasty seems to provide equal opportunities for all the people. However, the ancient educational system is not so popular and educational resources are scarce that only the people from upper class can receive a good education. The provision of different penalty for the same crime is demonstrated by such systems as Bayi system, Guandang system, and systems as

apology, extenuation, impunity and atonement. These systems provide an umbrella for the upper class and they show that the upper class enjoys the social privileges.

Secondly, the patriarchal society gives great impact on the universal application of the ancient legal system, because in a patriarchal society, the clan family rules and regulations and moral principles occupy the field that should be adjusted by law. To a certain extent, they work as laws. Furthermore, their adjustment to social contradictions helps to form the idea of “never resorting to law” in the folk world of ancient China.

In a patriarchal society, such customs and values as nostalgic provincialism, living with the whole clan, and neighborhood conservation have been retained for a long time. Therefore, as to the disputes of land, marriage and debts in the folk world, the government officials can achieve the purpose of quelling disputes through the mediation of neighbors and relatives. In a long ruling practice, the rulers find that such a method of mediation is not only effective but also helpful to reduce the number of suitcases between the government and the common people. So they make use of the power of government to further strengthen the legal status of the patriarchal family regulations. For instance, rulers of Song Dynasty once ordered some bigger families to compile their patriarchal clan and regulations. The conduct of the government has intensified the status that the patriarchal regulations are supplementary law. The long-term accumulation of the custom makes the thought of “never resorting to law”, prevailing in ancient Chinese society. Even in Qing Dynasty, some minor civil cases and criminal cases tried in district and county government are still adopted the way of mediation by neighbors, the community surveillance and kin by law and by the family clan and regulations. Such a tradition has become the source of the mediation system in Chinese litigation, which is rare in other part of the world.

Exploring the factors that affect the legal development is conducive to correctly understand the traditional legal culture and its influence, reconstruct and disseminate the modern legal culture. The above is my preliminary analyses about the factors that affect ancient Chinese legal development with what I have accumulated during teaching. As a matter of fact, factors influencing the legal development are more than what I have said and influences of various factors are not isolated. I really want to say more the size of the whole text does not allowing me doing that.

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A Study of Age Influence in L2 Acquisition

Chao Zhang

Qingdao University of Science and Technology

Qingdao 266061, China

E-mail: zhang_chao75@163.com

Abstract

The study of the second language (L2) acquisition has drawn more and more attention since the 1960s. This paper tries to explore the influence of learners' age factor as well as the other factors related to age in L2 acquisition. Considering the fact that most learners are adolescents and adults in the current foreign language education, we find it quite necessary to compare and analyze their advantages and disadvantages in foreign language learning and their learning styles, so as to improve their foreign language learning efficiency. In this paper comparisons and analyses are carried out on children, adolescents and adults to examine their characteristics respectively and their influences on language learning.

Keywords: Second language acquisition, Age, Learning strategy, Hypothesis, Teaching approach

1. Introduction

The problem of age is one of the factors affecting L2 acquisition. In the past few decades, the comparisons among child, adolescent and adult learners have been made by many researchers, and the different findings as well as explanations have been reported. In the investigation of the controversy over the relationship between L2 acquisition and age, the assentients and the dissidents almost constituted 50 percent respectively. Recently the scholars in the fields of linguistics, psychology and psycholinguistics have reported their study or experiment results continually, resulting in completely different points of view. So the argument for or against the critical period hypothesis has never stopped.

So there are some problems which need to be solved. Is there an optimal age, a critical period or a sensitive period? If the differences exist among children, adolescents and adults in L2 leaning, can some methods be used to narrow the gaps? How does the age factor affect the development of linguistic abilities? Are adults really inferior to children and even to adolescents? To answer these questions, many studies have been carried out to explore the relationship between the age stages and L2 acquisition by analyzing the experimental data. In essence, the whole problem bases on how the brain maturity rate affects the L2 acquisition, which involves several fields, such as neuropsychology, psycholinguistics, pedagogy and statistics.

As we know, teaching the three age groups requires different textbooks, teaching methods; environments and learning schedules owing to their different characteristics. So finding out the unique characteristic of each group by investigating and analyzing is useful in L2 teaching and learning.

2. Comparisons among Three Age Groups

2.1 Traits of Childhood

Their predominance in L2 learning is that they are in the most flexible condition. In this period their ability of language learning does not reveal any differences and their predominance appears especially in acquiring pronunciation naturally. Learning a foreign language in this stage might be strongly impressed on their brain, which can stimulate nervous function system, and the further learning can help them to form language habit and competency easily

The disadvantages in the age stage are that their long-term memory is rather bad and their first language and foreign language are easy to be mixed. Besides that, their culture and L2 culture tend to blend in a mess. They have not formed abstract logic ideation yet and have to spend more time in L1 learning than the L2 learners in other age stages. So their foreign language learning needs extraordinarily excellent conditions, such as bilingual social and living environment which can expose them to the L2 and force them to take L2 as a tool of thought, game and communication, or very good high qualified teachers and ideal teaching establishment.

Some researchers believe children from non-English-speaking backgrounds will learn English better through structured immersion, where they have English lessons and content-based instruction in English. These programs provide more time on task in English than bilingual classes. Research, however, indicates that this increased exposure to English does not necessarily speed the acquisition of English. Over the length of the program, children in bilingual classes, with exposure to the L1 and to English, acquire English language skills equivalent to those acquired by children who have been in English-only programs (Cummins, 1981; Ramirez, Yuen & Ramey, 1991). This would not be expected if time on task were the most important factor in language learning. Researchers also disagree with withdrawing home language support too soon and suggest that although oral communication skills in a second language may be acquired within 2 or 3 years, it may take 4 to 6 years to acquire the level of proficiency needed for understanding the language in its academic uses (Collier, 1989; Cummins, 1981). So children who are taught L2 intensively too early will damage their L1 acquisition.

2.2 Traits of Adolescents

The L2 learning predominance in this period is that their cognitive competency has grown to certain extent and their meta-language, which helps the learners to analyze or describe a language, is fairly sensitive. Therefore they are good at imitation and reminiscence. Adolescents are better than children in utilizing the strategy of language communication and they apprehend the things between the language and culture easily. Accordingly, these abilities promote the processes of L2 learning. Adolescent psychological barrier is lower than adults and they would not pay excessive attention to other people's attitude towards them. The low psychological barrier is propitious to operating inherent mechanism. Just like adults, adolescents can also take advantage of the language regulations they have learnt to monitor their outputs, but children are generally short of monitoring competency. The interjections and self-corrections that speakers make while talking show that monitoring is taking place, for the purpose of making meaning clearer. Adolescents and adults would listen to their own utterances to compare what they say with what they intend to say, and to make corrections if necessary. But children seldom act like that, they are not aware whether their utterances are appropriate or not. For these reasons, adolescents can learn L2 quicker than adults and children; meanwhile they can do better than adults and children in concrete language learning, such as syntax, listening competency and so on.

The disadvantages in adolescence are that they should study harder than children and need strong self-control in L2 learning according to their schedules. In fact it is very difficult for adolescent learners to persevere in heavy learning tasks, because they are easily affected by the other things around them. Adolescent egocentrism is a self-absorption that makes it hard for them to accept criticism and tolerate authority.

Furthermore, in this period, they have a lot of learning courses assigned by their parents and teachers, which might let them attend to one thing and lose another.

2.3 Traits of Adulthood

Adults' cerebra nerve network has come into being completely, and their thinking habits have become mature in this period. They can deal with complicated language form and contents easily, because their meta-language consciousnesses, common sense and literary knowledge are better than children, as Krashen (1982:21) claimed "we also use context, our knowledge of the world, our extra-linguistic competency to help us understand". So adult's predominance is especially conspicuous in reading comprehension, writing and so on. Their definite learning goals, great study motivation, rich knowledge experiences and better comprehension competency and short-term and long-term memories facilitate the process of L2 learning. Moreover, their L2 learning might be quicker than children initially through the knowledge of systematical L1 and monitor approach.

Their shortcomings are that they have not enough time to study. Their study continuity is always interrupted by social activities, which might be important for them. It is difficult for them to imitate or utter standard pronunciation and they are apparently worse than children and adolescents in getting rid of their L1 habits which are in conflict with the L2 system. So their communication ability improves rather slowly in applying knowledge of social language in conflict with their L1 to practice.

In this part we try to find out to what extent these three groups are effected by age factors. The results indicate the relationship between their influences in the process of L2 learning and the learners' influence of age along with the other aspects in different age stages, such as motivation, attitude, opportunity and learning ability. The unique characteristic in each age stage has its advantages and disadvantages. According to Lightbown and Spada, adolescent and adult L2 learners have developed the cognitive maturity, which means the ability to engage in problem-solving, deduction, and complex memory tasks (2002: 171) and the metalinguistic awareness (2002: 177), which means the ability to treat language as an object very well, for example, being able to define a word, to say what sounds make up that word. Then they can learn grammar consciously and understand the language easily. On the other hand, a difficulty in comparing the learning ability of children, adolescents and adults is that children have the best learning conditions among the three groups: more time, attention, communicative need, opportunities for use, and so on. (William

Littlewood 2000: 66). The characteristics concluded above can help educators find out the pertinence to teaching approaches and learning strategies in class.

3. Teaching Approaches and Learning Strategies in Three Groups

The differences among the three age groups are really existent and the biological L2 learning conditions are unchangeable. So the only way to improve it is teaching approaches and learning strategies. As the results listed in the previous part indicate, we can find some traits based on biology appeared in the processes of L2 acquisition. Then the teaching approaches and learning strategies should be adopted to compensate the shortcomings and taken good advantage of in three groups.

3.1 Different Teaching Approaches in Three Groups

As noted at the previous part, children need to be motivated by the teacher or the materials in order to learn effectively. Prizes and praises can help, but the similar extrinsic rewards are not enough. More effective on the whole are elements that contribute towards intrinsic motivation, such as interest in the learning activity. Those elements are most effective if the elements cater for the senses and activate the aspiration of children in communication. Three sources of interest for children in the class are pictures, stories and games. The picture includes all kinds of visual stimulus things, for example the photograph, disk and TV. Pictures are very dominant channel of input: and the more clearly visible, striking and colorful the better. Keller, C.M. and Keller, J. D. (1996: 126) put forward that "Linguistic forms and images are reciprocally accessible and in interactive functioning can be mutually constitutive". The teacher's own quick sketches on the blackboard and the children's own drawings are means to draw the children's attention. The stories are both visual and aural and the games are both visual and aural channels as well as activating language production. Young children love listening to the stories and older ones begin to read for themselves, which are positive language materials input. The most effective combination in teaching is pictures and stories together (Penny Ur, 2000: 289). The games convey the language information in the way of active and physical movement.

The adolescent students appear to like to feel that the teacher has authority and has them under control. Most students agree with that a good teacher treats his students with fairness and respect. The adolescents are in the sensitive period in the lifetime, so the attitude in their teacher will affect the learning attitude. The younger adolescents are more in favor of fun and less keen on hard study. Older adolescent students tend to interesting lessons and diligent working (Wragg and Wood 1984: 220-22).

Teaching adults is easier and less stressful. However, it is often directed towards

special purposes, for example business, academic study and so on. Their goals are definite and their attitude towards the lesson is positive. In the classroom, adults take more responsibility for the learning process, and rely less on the teacher's encouragement. They are in a better position to assert their right to question, criticize and generally participate actively. And they do tend to be more disciplined and conform more to the teacher's demands than younger learners. Adult learners demand final returns in terms of their own benefit in learning outcomes. Although the raising and maintaining of teaming motivation is an essential part of teaching activity with three age groups, it usually demands less investment of effort and time in adult students (Penny Ur 2000: 296).

3.2 Different Learning Strategies Used in Three Groups

Children employ simple learning strategies in L2 learning. Most of the children study according to their parents' and teacher's order. They may use some learning strategies intuitively and under the supervision of their parents' or teacher's instruction.

Adolescents use more complex and sophisticated learning strategies than children.

They may choose a lot of learning strategies without caring about whether it is suitable. Their strong memory in this period can get a good achievement. Adolescents lack self-discipline and can easily be distracted by other things, so their making an elaborated plan is a good method. They have enough time to communicate with teacher and classmates for solving the problems.

Most of the adult students are aware of the usage of the learning strategies and they try a lot of means and want to find good learning strategies. And their advantage is to summarize the creditable rules for themselves by their own learning experiences. The adults take advantage of L1 and social knowledge to help their learning and usually use monitor and compensation strategies in their L2 teaming processes.

"The adult learners' tendency to analyze and apply conscious thought to the learning experience may obstruct some of the natural processing mechanisms through which the new language is internalized". In this way, we may say that the adult learners rely too much on 'learning', whereas children let 'acquisition' takes its proper course (William Littlewood 2000:66). So we can find that adults utilize more learning strategies in L2 learning than adolescents and children.

According to what we discuss in the previous several passages, the teacher's duty is different in the three groups and the

teaching approaches should cater for the traits of students. Teachers should manipulate a number of options according to the aim of the teaching and learning, such as different reading materials, the speed of teaching procedures, etc.

The successful language learners appear to use more strategies than the less ones.

However, all the methods have their potential strengths and weaknesses and not all learning strategies are suitable for each learner. In order to make English learners use learning strategies frequently and effectively, strategies should be integrated with the course content. Learners of different ages and stages should use different strategies. Children use strategies unconsciously and their teacher should help them form good learning habits in this period. Some adolescents might be unable to be aware of using learning strategies, and others use too many complex and sophisticated learning strategies in L2 language learning, which might not ensure to achieve high level. Adult learners prefer analytic-style strategies such as comparative and contrastive analysis, generalization rules learning, and dissecting words and phrases.

4. Conclusion

This paper discusses the following questions: which group is the best one in L2 acquisition? Does the age affect the process of L2 acquisition? What kind of traits exists among the age stages? Does each stage have its unique advantages and disadvantages? Based on some comparisons and analyses, several conclusions are made and some suggestions on the learning strategies are put forward.

First, the differences in the process of L2 acquisition apparently exist.

Second, the L2 development shows that although learners share the similar learning process, which is generally from simple to complex, the three groups acquire L2 by means of different learning strategies according to their age traits. Meanwhile they choose their own ways to learn L2 in conformity to their personalities, knowledge, experiences and attitudes. Besides, the successful language learners appear to use more strategies than the less ones. So a teacher's function cannot be only regarded as the impartation of knowledge in class. The real learning condition urges teachers to play their roles not only as teachers but also as guiders.

Third, age is an important factor in L2 acquisition, but its influence is not so great as to affect the achievement of a smart and diligent L2 learner. As we know, there are many factors that can work in the process of L2 learning, but every success is based on the comprehensive learning ability, which includes the learning materials they choose, the ability to change their learning strategy for better achievements. The age stages have caused different barriers to the L2 learners, but they can be overcome by different compensation means. For example, some adults' pronunciations can be improved by some compensative training. We should also know that adults' old or bad habits are very hard to get rid of. Children need their teacher's hard work, and more patience. Adolescents are potential good learners with a half mature and flexible biological foundation, which helps them acquire new knowledge quickly and easily.

Furthermore some students, who are very intelligent and can learn English very well, turn out to be laggards in English learning, and some students may be diligent but they gain average scores in their class. Meta-cognitive, cognitive, social-affective and other learning strategies should match their traits, or they would waste lots of time and gain nothing, and lose their self-confidence. In all, there are a number of factors, which can also affect L2 acquisition greatly besides the biological one.

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Background Knowledge and Reading Teaching

Qian Huang

College English Department of Dezhou University

Dezhou 253023, China

E-mail: qqh@dzu.edu.cn

Abstract

For a long time, it has been thought that any reader can comprehend a text well if such factors as vocabulary and grammar are not beyond his knowledge. However, the reading effect seems unsatisfying, which poses a great challenge for reading teaching. In this paper, the author explores the reading process and applies the Schema Theory, in order to prove the important role of background knowledge in reading comprehension. Based on this discussion, suggested teaching methods are available for employing background knowledge in reading teaching.

Keywords: Reading comprehension, Background knowledge, Schema theory, Schema

1. Introduction

The ability to read is acknowledged to be the most stable and durable of the second language modalities (Bernhardt 1991). In other words, reading plays a vital role in second language acquisition. For a long time, reading was traditionally viewed as a bottom-up process in a word-sentence-passage sequence, in which readers decode the text and rebuild what the writer wants to convey. Accordingly, reading teaching becomes teaching of language points known as grammar and vocabulary. When students have problems in comprehending the text, they are told that they fail because of their poor grammar or limited vocabulary. Consequently, people are misled to believe that the only approach of an effective reading is enlarging vocabulary and mastering grammatical rules. Actually it is not so. During the late thirty years, researchers of foreign language reading show their doubt towards the traditional view on reading and reading teaching. Among them, Adams (1982), Carrel (1984), Hudson(1982), Levine & Haus (1985), Johnson(1981,1982), Singer & Donlan (1982), Steffenson & Joag-Dev (1984), and Wilson (1986) did researches on schema theory and the role of background knowledge in reading process. In china, researchers such as Tan (1997), Yang (1995), Lai (1998) Hu (1999) have undergone the same exploration and study to aid their L2 teaching practice. Consulting those researches, this paper discusses the interaction between reading comprehension and background knowledge. It finally provides some effective methods to equip background knowledge in reading teaching, with its aim at improving reading teaching in an anti-traditional way.

2. The Important Role of Background Knowledge in Reading

2.1 *The Background Knowledge as a Pedagogical Term*

At a language teaching angle, background knowledge refers to one's previously acquired comprehensive knowledge or world knowledge and one's special knowledge on a certain subject. Comprehensive knowledge means learning either in or out of school and an accumulation of a variety of experiences.

2.2 *The Reading Process*

Transformational Generative Theory (Chomsky) asserts that reading comprehension begins at the smallest and simplest language units and each single word, sentence and passage carries its own meaning independently which has no direct link with the reader. As have been noted in the introduction of this thesis, reading is simply decoding. When decoding ends, reading comprehension is realized. In that case, if comprehension does not go on successfully, it is the reading material that causes the problem grammatically or lexically. This theory highlights the influence caused by language structure more than the reader's own influence.

The recent researches indicate that reading comprehension is neither simply a unidirectional information-receiving activity nor a comprehension of words, sentences, and texts. Readers construct a certain cerebral mode in the reading process, a comprehension-aimed, multi-stratiform, and interactive process that requires consistent inferring and

guessing. A multi-stratiform process means that readers wield language knowledge of different levels (phonetic, syntactic, semantic, etc.). An interactive process means that a text affects readers through its words, content, and structure whereas readers apply their background knowledge to act on the text. What role does background knowledge play in reading process? The schema theory explains.

2.3 Schema Theory

According to schema theory, any text, spoken or written, does not by itself carry meaning. In reading, a text only provides directions as to how a reader should retrieve or construct meaning from previously acquired knowledge. Comprehending words, sentences, and entire texts requires the ability to relate the material to one's own knowledge. Effective reading is a combination of the non-visual information already stored and organized in the brain and the present visual information printed on the page.

1) Schema

Before preceding any further, the notion of schema must be defined. Schemas, or schema as they are sometimes known, have been described as "cognitive constructs which allow for the organization of information in long-term memory" (Widdowson 1983). Cook (1989) states, "the mind, stimulated by key words or phrases in the text or by the context, activates a knowledge schema" (Cook 1989:69). Widdowson & Cook both emphasize the cognitive characteristics of schema that allow us to related incoming information to already known information. This covers the knowledge of the world, from everyday knowledge to very specialized knowledge, knowledge of language structures, and knowledge of texts and forms they take in terms of genre, and organization. In addition to allowing us to organize information and knowledge economically, schemas also allow us to predict the continuation of both spoken and written discourse. The first part of a text activates a schema, that is, calls up a schema, which is either confirmed or disconfirmed by what follows.

2) Types of Schema

Research on the theory of schema has had a great impact on understanding reading. Researchers have identified several types of schemata. Content schema, which refers to a reader's background or world knowledge, provides readers with a foundation, a basis for comparison (Carrell & Eisterhold 1983; Carrell, Pharis & Liberto 1989). Formal schema, often known as textual schema, refers to the organizational forms and rhetorical structures of written texts. It can include knowledge of different texttypes and genres, and also includes the understanding that different types of texts use text organization, language structures, vocabulary, grammar, level of formality/register differently. Schooling and culture play the largest role in providing one with a knowledge base of formal schemata. While formal schemata cover discourse level items, linguistic or language schemata include the decoding features needed to recognize words and how they fit together in a sentence. First language readers, through repeated examples, are able to generalize a pattern or guess the meaning of a word, which may not have initially been part of their linguistic schema. The building of linguistic schema in a second language can proceed in the much the same way.

From the above discussion it is evident that schema plays an important role in text comprehension, both in the L1 and L2 context. For example, whether reading in a first or second language, one can assume that both native and non-native readers will understand more of a text when they are familiar with content, formal, and linguistic schema. An L2 reader, however, who does not possess such knowledge can experience schema interference, or lack of comprehension-ideas which are examined further in the following discussion pertaining to relevant research in this area.

3) Content Schema and Background Knowledge

Content schema or cultural orientation in terms of background knowledge is also a factor that influences L2/FL reading and has been discussed by Barnett (1989), Carrell and Eisterhold (1983), and Johnson (1982). Most methodologies investigating the role of schemata or background/prior knowledge were variations on Carrell's (1987) paradigm. This study involved 28 Muslim Arabs and 24 Catholic Hispanic ESL students of high-intermediate proficiency enrolled in an intensive English program at a Midwestern university. Each student read two texts, one with Muslim-oriented content and the other with Catholic-oriented content. Each text was presented in either a well-organized rhetorical format or an unfamiliar, altered rhetorical format. After reading each text, the students answered a series of multiple-choice comprehension questions and were asked to recall the text in writing. Analysis of the recall protocols and scores on the comprehension questions suggested that schemata affected the ESL readers' comprehension and recall. Participants better comprehended and remembered passages that were similar in some way to their native cultures, or that were deemed more familiar to them. Other studies have shown similar effects in those participants better comprehended and/or remembered passages that weremore familiar to them (Ammon 1987; Carrell 1981; Johnson 1981, 1982; Langer, Barolome, Vasquez& Lucas 1990; Shimoda 1989). Further evidence from such studies also suggested that reader's schemata for content affected comprehension and remembering more than did their formal schemata for text organization. For example in the Carrell's (1987) study described above, students remembered the most when both the content and rhetorical form was familiar to them. However, when only content or only form was unfamiliar, unfamiliar

content caused more difficulty for the readers than unfamiliar form. Steffensen and Joag-Dev (1984) conducted a study using two descriptions of weddings both written in English. One was a description of an American wedding, while the other was of an Indian (subcontinent) wedding. Both the Indian students, for whom English was an L2, and the American students, for whom English was the L1, read the descriptions and were asked to recall the descriptions. It was found that readers comprehended texts about their own cultures more accurately than the other. While the readers indicated that the words were easy to understand, the unfamiliar cultural protocol of an Indian wedding made the passage more difficult to remember.

Johnson's (1981) study investigated the effects of the cultural origin of prose on the reading comprehension of 46 Iranian intermediate advanced ESL students at the university level. Half of the subjects read the unadapted English texts of two stories, one from Iranian folklore and one from American folklore, while the other half read the same stories in adapted English. The subjects' reading comprehension was tested through the use of multiple-choice questions. The recall questions and the texts were also given to 19 American subjects for comparison purposes. Results revealed that the cultural origin of the story had a greater effect on comprehension than syntactic or semantic complexity of the text. In another study, Johnson (1982) compared ESL students' recall on a reading passage on Halloween. Seventy-two ESL students at the university level read a passage on the topic of Halloween. The passage contained both unfamiliar and familiar information based on the subjects' recent experience of the custom. Some subjects studied the meanings for unfamiliar words in the text. Results of recall protocols suggested that prior cultural experience prepared readers for comprehension of the familiar information about Halloween on the passage. However, exposure to the unfamiliar words did not seem to have a significant effect on their reading comprehension. An interesting study was carried out by Kang (1992). Kang's study examined how second language readers filter information from second language texts through culture specific background knowledge. Korean graduate students with advanced English read stories and answered questions. A think-aloud protocol assessing their understanding and inferences indicated an effect of culture specific schemata and inferences upon text comprehension. Although all the variables and factors surrounding the issues of how culture shapes background knowledge and influences reading are not fully understood, there is agreement that background knowledge is important, and that content schema plays an integral role in reading comprehension. Overall, readers appeared to have a higher level of comprehension when the content was familiar to them. Given this, second language readers do not possess the same degree of content schema as first language readers, and hence, this can result in comprehension difficulties.

3. Suggested Teaching Methods of Improving Reading Teaching through Background Knowledge

To make sure that students could understand the material properly and quickly instead of being hindered by poorly applied background knowledge, a reading teacher should know the reading material well to make clear what background knowledge the students may lack, choose appropriate and effective methods inspiring students to make use of background knowledge in their reading comprehension, and assist students to incorporate visual information to their pre-existing background knowledge. In this way students could practice awareness and skills to apply background knowledge in reading comprehension, achieving a satisfying effect. Some effective teaching methods of this kind are available below.

3.1 Class Discussion

Class discussion is a traditional yet effective method. Discussion makes it possible for most students to participate actively and improve their oral English evidently. Group discussion is a better choice, for more students could open their mouth and state their own ideas. Firstly the teacher may give a well-designed topic related to the text. And then students discuss the topic in small groups, four or five students at the most, and present their group idea after discussion. The teacher may make a summary finally and lead in the text.

In the text "why I teach" (college English: Intensive Reading), the teacher may require students to discuss the profession as a teacher as well as the teaching methods they like. From primary school to college students meet their teachers every day. In addition, some college students have experiences as an amateur teacher. So it is possible for all the students to state their own views. Based on reading and explaining the text, the teacher compares the author's idea and the students' ideas so that students could understand the text more than others.

3.2 Writing and Presenting Personal Experiences

A satisfying effect can be reached especially when students have a higher level of English, for they can express themselves orally or literally. This activity may begin either before or during handling the text. At the beginning students are given some key words or concepts. Then the teacher may explain the text related major points and pose some subjective questions such as "what do you think of ...?" "What makes you think of ..." etc. In answering those questions students are motivated to express themselves and incorporate the textual information to their knowledge base, and get their background knowledge strengthened. Or in another way students may choose short writing to express their ideas. Reading combined with writing is a good method if organized well. In the text "Big Bucks the Easy Way"

(College English: Intensive Reading), students may talk about their own experiences when doing a part-time job. They may have an oral or written presentation. Comparing the text with their own experiences, students may understand the text easily. Meanwhile they can know more about American students and enlarge their previous knowledge base.

3.3 Comparison between Native and Foreign Background

It is also a traditional but well-accepted method, for comparison impresses students deeply and inspires a good memory. In the text "There's only luck" (College English: Intensive Reading), the teacher may make a comparison of the law of gun ownership between in China and in America, so that students can have an awareness of the different background and hence avoid understanding barriers. Also in the text "Big Bucks the Easy Way", as has been cited above, students may be aware of the independence of American people through comparing the different way that Chinese and American parents educate their children.

3.4 Video and Slide Show

Reading can also be equipped with multimedia like video and slide show. Psychologically students incline to accept visual and audio information. An active and creative teacher would exert multimedia as a main approach to display background knowledge directly and vividly. In the middle school English textbook there is a text titled "The earthquake". The teacher may make a video or slide show to display scenes when an earthquake happens, which plays an irreplaceable role in imparting background knowledge and helping students to understand the text easily. This is an example the author witnesses at a model English class competition that is worth imitating.

3.5 Use of True-or-False or Multiple-choice Exercises

Many textbooks arrange true-or-false or multiple-choice exercises to check the students' comprehension of the text. It is wise to make those exercises a good approach to check and teach background knowledge. Beyond that, the teachers are encouraged to create and compile more appropriate exercises to be an assistance of reading teaching. Exercises of this sort are more suitable for those students with strong comprehension but weak expression. In checking the answers, simply pointing out the correct answer is definitely not enough. The teacher should teach more than a single answer can afford.

3.6 Guessing and Inferring

The background knowledge permits the reader to provide coherence to the text, permitting better bridging inferences between non-coherent sections and also permitting additional elaborative inferences. We can see that background knowledge plays a vital role in making inferences in reading process. The teacher may select several key words which stand vitally in the text and require the students to infer what the text may talk about. With their assumption, students are impelled to read the text eagerly. This method needs additional work to select the key words elaborately and accurately.

3.7 Widely Reading

Except various background knowledge of different nations, human share a large amount of the same knowledge known as common knowledge that is beyond the limitation posed by culture, region, or religion. For example, one plus one equals two everywhere around the world. So students are encouraged to read as widely as possible either in English or in Chinese. Common knowledge is, to some extent, equally or even more important than language itself.

4. Conclusion

As a text is read, there is a large cognitive load on the reader as the reader is decoding the text and incorporating the textual information into his or her knowledge base. The key to incorporating the information into the reader's knowledge base is partly dependent on the amount of background knowledge of the reader. Having background knowledge will imply that the reader has a certain amount of knowledge of the subject of the text or related knowledge due to personal experiences and cultural background. A reader's background knowledge permits the information to be incorporated into pre-existing knowledge structures. Therefore readers who do not have an adequate amount of background knowledge on the subject of a text will have lower comprehension of the text (Spilich, Vesonder, Chiesi & Voss 1979; Voss, Vesonder & Spilich 1980). In conclusion, background knowledge plays so important a role in reading comprehension that any teacher cannot teach reading well without watching out for the background knowledge.

In this thesis some teaching methods are suggested, but they are far from enough. The author intends he readers of this thesis to create more and better methods to employ background knowledge in reading teaching.

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An Analysis of the Adolescent Problems in

The Catcher in the Rye

Lingdi Chen

Dept. of Foreign Languages, Dezhou University

Daxue xi Road, Dezhou 253023, China

E-mail: chld1973@126.com

Abstract

The Catcher in the Rye was written by famous American writer J.D.Salinger. This paper mainly analyzes the adolescent problems Holden Caulfield confronts on the journey from childhood to adulthood. These adolescent problems include Holden's protection of innocence, his disgust for the phoniness of the adult world, and his alienation from society. This paper concludes that these adolescent problems produce great impact on him. Holden behaves almost erratically and impulsively and has negative attitudes towards almost everything and everyone he meets.

Keywords: Adolescent problems, Innocence, Phoniness, Alienation

1. Introduction

The Catcher in the Rye, Salinger's masterpiece, tells the painful story of a high-school boy growing up in the world of decadent New York. Young Holden Caulfield is expelled from school because of his poor academic performance. He is afraid to meet his parents earlier than they should expect him, so he decides to stay in a New York City hotel. There he meets pimps, prostitutes and "queers." Soon he becomes aware that the world of adults is a "phony" one. After his meeting with a friend, Holden sneaks back home to see his kid sister Phoebe. She is a loving kid, but her talk about their father "killing" him sickens him. Creeping out of home, he goes to see his former teacher, Mr. Antolini, only to find that his respectable teacher is a homosexual. And he escapes from Antolini's house. Holden feels himself sinking. Then he decides to go west and spend the rest of his life there. When he goes to say goodbye to his sister Phoebe, she insists on going with him. This unexpected act of love drives him out of his dream and his nightmarish three-day adventure in New York. Finally he goes home, falls ill, and recovers in a psychiatric ward in California. It is there that he recounts his sad story of growing up in *The Catcher in the Rye*.

Some papers have analyzed the themes of *The Catcher in the Rye*, the character of the anti-hero-Holden Caulfield, and the use of symbolism and teenage language in the novel. This paper mainly analyses the adolescent problems Holden Caulfield confronts on the journey from childhood to adulthood, those including Holden's protection of innocence, his disgust for the phoniness of the adult world, and his alienation from society.

2. The adolescent problems Holden confronts

2.1 Holden's protection of children's innocence

Throughout the novel, Holden sees the protection of innocence, especially of children as a primary virtue. It is very closely related to his struggle against growing up. Holden's enemy is the adult world and the cruelty and artificiality. The people he admires all represent or protect innocence. He thinks of Jane Gallagher, for example, not as a maturing young woman but as the girl with whom he used to play checkers. He tells us that he and Jane had no sexual relationship. Quite sweetly, they usually just hold hands. Holden comforts Jane when she is distressed, and it bothers him that Jane may have been subjected to sexual advances from her drunken stepfather or from her date, Holden's roommate, Stradlater.

The red hunting hat, one of the most recognizable symbols from twentieth-century American literature, is inseparable from our image of Holden. It is a symbol of his uniqueness and individuality. The hat is outlandish, and it shows that Holden desires to be different from everyone around him. It is worth noting that the hat's color, red, is the same as that of Allie's and Phoebe's hair. Perhaps Holden associates it with innocence and purity he believes these characters

represent and wears it as a way to connect to them. He never explicitly comments on the hat's significance other than to mention its unusual appearance.

Holden tells us the symbolic meaning of the museum's displays: they appeal to him because they are frozen and unchanging. He also mentions that he is troubled by the fact that he has changed every time when he returns to them. The museum represents the world Holden wishes he could live in: it's a world of his "catcher in the rye" fantasy, a world where nothing changes, where everything is simple, understandable, and infinite. Holden is terrified by the unpredictable changes of the world—he hates conflict, he is confused by Allie's senseless death, and he fears interaction with other people. Here we can see Holden's struggle against maturity.

The title of the book—*The Catcher in the Rye*— first appears in Chapter 16, when a kid is singing the Robert Burns song "Comin' Thro' the Rye." In Chapter 22, when Phoebe asks Holden what he wants to do with his life, Holden tells Phoebe that he would like to be a catcher in the rye: he pictures a lot of children playing in a big field of rye around the edge of a cliff. Holden imagines that he would catch them if they start to go over the cliff. His dream of becoming a "catcher in the rye" shows that Holden has affection for childhood. He wishes to save these children from danger so that they may frolic in the fields; we can interpret this as Holden's wish to save the children from the phony adult world. Holden wants to catch children before they fall out of innocence into knowledge of the adult world.

Holden's observations become increasingly random and disjointed, as when he sees profane graffiti in the school. Holden's obsession with the profanity is notable, for it shows his distaste for anything that may corrupt the innocence of children. Holden wishes to shelter children from any adult experiences, revealing his own fear of maturity and his dream of protecting children's innocence, which increase his disgust for and reinforce his resistance to the "phoniness" of the adult world.

2.2 Holden's disgust for the phoniness of the adult world

"Phoniness", probably the most famous phrase from *The Catcher in the Rye*, is one of Holden's favorite concepts. It is a phrase Holden often uses for describing the superficiality, hypocrisy, pretension, and shallowness. He feels surrounded by dishonesty and false pretenses. In Chapter 22, Phoebe tells Holden that she thinks his plan to go to Colorado is foolish, and asks why he fails out of yet another school. He claims that Pencey is full of phonies. He tells her about how everyone except Robert Ackley as a sign of how phony the students are. Holden admits that there were a couple of nice teachers, including Mr. Spencer, but then complains about the Veterans' Day ceremonies.

The criticism toward "phony" things in society is expressed in the novel primarily by the word "phony". Holden is a representative of the world of childhood whose characteristics are the opposite values to those Holden calls "phony". One of the things Holden often calls "phony" is the world of movies and everything about it. Examples of it are his anger toward his brother D.B. because he moved to Hollywood, aversion of Sunny the prostitute who tells him she spends most of her time in film theaters and derision to the three women he met at the bar who are only interested in movies and famous actors. Another thing Holden calls "phony" is the theater. He finds the theater "phony" because he thinks that instead of demonstrating reality as it is, the emphasis is put on polishing theatricality. He says he has never seen so much "phony" things like he sees in the theater. Out of these examples and others we see that for Holden it is very important to be "real", honest and not "phony", thus the criticism toward the "phony" things in society is the most significant aspect of his personality.

Though oversimplified, Holden's observations are not entirely inaccurate. He can be a highly insightful narrator, and he is very aware of superficial behavior in those around him. Throughout the novel he encounters many characters who do seem affected, pretentious, or superficial—Sally Hayes, Carl Luce, Maurice and Sunny, and even Mr. Spencer stand out as examples. Some characters, like Maurice and Sunny, are genuinely harmful. But although Holden spends so much energy searching for phoniness in others, we should point out, he never directly observes his own phoniness. Holden exhibits the same "phoniness" he denounces. For example, at the start of the novel, Ackley asks Holden's privacy and intrusive questions. Later, when Holden's roommate Stradlater is getting ready for a date, Holden follows him into the bathroom, asks Stradlater personal questions, and then tackles him while he is shaving; and his conversation with Mrs. Morrow contains nothing but falsehoods. The only statement that contains any truth is that he is a student at Pencey; otherwise, all of his statements are deliberately misleading. He tells Mrs. Morrow exactly what she wants to hear about her son, and humors her own sense of vanity and self-absorption by making her believe that her son, whom Holden loathes, is one of the most honorable and decent students at Pencey. These lies reveal the complete contempt that Holden holds for Mrs. Morrow and, by extension, all authority figures. He lies in order to mock Mrs. Morrow's sense of delusion while relishing the false view of her son. Holden claims a sense of superiority over Mrs. Morrow, for he believes that he can see clearly Ernest Morrow's personality, while she has a false, idealized portrait of her son. Whatever her delusions, however, Holden treats Mrs. Morrow horribly. He views her either as a target for ridicule or a sexual object, as he flirts with her and even offers to buy her a drink. He takes a trait that demonstrates a typical teenage immaturity, and moves it to an unbearable extreme; his lies become more shameless and outlandish, revealing the disturbing disconnection between Holden's psyche and reality.

Holden also pretends, lies, and makes irrational and contradictory assumptions. He usually masks his feelings from other people, which alienate him from society. His deceptions are generally pointless and cruel and he notes that he is a compulsive liar. For example, on the train to New York, he makes a mean-spirited and needless joke on Mrs. Morrow. He'd like us to believe that he is a paragon of virtue in a world of phoniness, but that isn't the case. Although he'd like to believe that the world is a simple place, the world is not as simple as he'd like it to be; even he cannot adhere to the same black-and-white standards with which he judges other people. For example, he criticizes Stradlater and others for their snobbery, but Holden reveals himself to be an equal snob, condescending to others because of their cheap suitcases. He believes that the common factor linking people is not intelligence or talent but social class. This establishes Holden's own sense of hypocrisy: although he condemns the behavior of the class to which he belongs, he shares their behaviors and even accepts this value system as reasonable.

Phoniness, for Holden we can say, stands as an emblem of everything that's wrong in the world around him and provides an excuse for him to withdraw into his cynical alienation.

2.3 Holden's alienation from society

Throughout the novel, Holden seems to be excluded from and victimized by the world around him. Holden exemplifies typical teenage feelings of alienation. He rejects the idea that life is a game, "Game, my ass. Some game. If you get on the side where all the hotshots are, then it's a game, all right—I'll admit that. But if you get on the other side, where there aren't any hotshots, then what's a game about it? Nothing. No game."^① He clearly identifies with those on the "other side" of the game, and he feels alone and victimized, as though the world is against him. He feels trapped on "the other side" of life, and he continually attempts to find his way in the world to which he feels he doesn't belong. When he decides to leave Pencey early, his final insult to his fellow students shows that Holden believes himself to be in some major respect different from the other Pencey students. An innate sense of superiority, however unfounded, separates Holden from the other students, for he believes himself to be more honorable and "deep" than the self-centered Stradlater and more refined than the piggish Ackley. Yet Holden demonstrates qualities similar to those of his peers; he suffers from a self-imposed delusion that he is different and chooses to leave Pencey for an uncertain future.

Relationships, intimacy, and sexuality are the problems Holden faces relating to his alienation. Both physical and emotional relationships offer Holden opportunity to break out of his isolated shell. They also represent what he fears most about the adult world: complexity, unpredictability, conflict and change. As he demonstrates at the Museum of Natural History, Holden likes the world to be silent and frozen, predictable and unchanging. As he watches Phoebe sleep, Holden projects his own idealizations of childhood onto her. But in real-world relationships, people talk back, and Phoebe reveals her childhood is different from Holden's romanticized notion. Because people are unpredictable, they challenge Holden and force him to question his senses of self-confidence and self-worth. For certain unspoken reason, seemingly stemming from Allie's death, Holden has trouble dealing with this kind of complexity. As a result, he has isolated himself and fears intimacy. Although he encounters opportunities for both physical and emotional intimacy, he gives up these opportunities them all, wrapping himself in a cynical armor. Even so, Holden still desperately continues searching for new relationships, always undoing himself only at the last moment.

Holden's loneliness, a more concrete manifestation of his alienation problem, is a driving force throughout the book. Most of the novel describes his almost manic quest for companionship as he flits from one meaningless encounter to another. Yet, while his behavior indicates his loneliness, Holden consistently avoids introspection and thus doesn't really know why he always keeps behaving as he does. Because Holden depends on his isolation to preserve his detachment from the world and to maintain a level of self-protection, he often gives up his own attempts to end his loneliness. For example, his conversation with Carl Luce and his date with Sally Hayes are made unbearable by his rude behavior. His calls to Jane Gallagher are aborted for a similar reason: to protect his precious and fragile sense of individuality. Loneliness is the emotional manifestation of the alienation.

As the novel progresses, we begin to perceive that Holden's alienation is his way of protecting himself. Just as he wears his hunting hat to advertise his uniqueness, he uses his isolation as proof that he is better than everyone else around him and therefore above interacting with them. The truth is that interactions with other people usually confuse and overwhelm him, and his cynical sense of superiority serves as a type of self-protection.

We can see that Holden's alienation is the cause of most of his pain. He never expresses his own emotions directly, nor does he attempt to discover the source of his troubles. He desperately needs human contact, care, and love, but his protective wall prevents him from looking for such interaction. Alienation is both the source of Holden's strength and the source of his problems. For example, his loneliness propels him into his date with Sally Hayes, but his need for isolation causes him to insult her and drive her away. Similarly, he longs for the meaningful connection he once had with Jane Gallagher, but he is too frightened to make any real effort to contact her. He depends upon his alienation, but it destroys him.

3. The impact of the adolescent problems on Holden

These adolescent problems Holden confronts exert great influence on him, and results in his erratic behavior, and his negative attitudes towards people, society and everything happening around him we can perceive after reading the novel.

Holden behaves almost erratically and impulsively. There seems to be no rational or reasonable motivation for his behavior. In Chapter 6, Holden's inability to control his behavior reaches far beyond any normal teenage impulses. When Stradlater fails to appreciate Holden's composition, Holden suddenly tears it into pieces with great anger. His fight with Stradlater also shows Holden's inability to control himself: when he suspects that Stradlater has slept with his old friend, Holden responds by punching him. In Chapter 17, Holden calls Sally Hayes to have a date. During lunch, Holden complains that he is fed up with everything around him and suggests that they run away together to New England, where they can live in a cabin in the woods. When Sally rejects his idea, Holden calls her a "royal pain in the ass," and she starts to cry. Holden feels somewhat sad, and realizes that he doesn't even know where he gets the idea about going to New England.

Within him, Holden has negative attitudes towards almost everything and everyone he meets. He strongly disgusts the "phony" things in society, especially the theater and the world of movies he often calls "phony". In Chapter 17, Holden tells Jane Gallapher that he hates everything: taxicabs, living in New York, phony guys who call the Lunts angels. Holden's unhealthy attitude towards sex deserves our attention. He is disturbed by the fact that he is aroused by kinky, sexual behavior such as spitting in one's partner's face. Although Holden considers such behavior as "crummy", he admits that it is pretty fun, although he doesn't think that it should be. Holden even appreciates sexuality in its most lurid forms, relishing Carl's gossip about which actors are closeted homosexuals, and can only conceive of Carl's relationship with the sculptress in terms of exotic sensuality. Holden harbors disgust for his teachers except Mr. Spencer and Mr. Antolini and dislikes his roommates Ackley and Stradlater. Ackley is rude: "He always picked up your personal stuff and looked at it."² and in appearance he is very disgusting: "I never even once saw him brush his teeth. They always looked mossy and awful... Besides that, he had a lot of pimples... all over his whole face."³ Stradlater is outwardly handsome and charming but "Stradlater was more of a secret slob."⁴

4. Conclusion

Adolescence is one of the momentous, beautiful, yet turbulent eras in one's life. It is here when people experience conflicts inside their psyches, ambivalence towards themselves, towards the people around them, and towards society. It is here when people begin to grow up. Without exception, it is the same with Holden Caulfield.

Holden represents a social type of adolescents growing up in a corrupt and decadent world and serves a mirror for his peers. There is a lot in him with which the young can identify. Much of Holden's candid outlook on life, on people around him, on society is still relevant to the youth of today and contains a truth of an eternal nature.

This paper concludes that these adolescent problems Holden confronts exert great influence on him, and results in his erratic behavior, and his negative attitudes towards people, society and everything happening around him. From these adolescent problems Holden meets, we learn that both parents and people in society should care and love one another, especially children, that we should help the young adapt them to the changing society, and that we should help the young establish healthy outlook on world and life. Thus the young can grow up in a sound way.

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Non- Agriculture Specialized Subjects Personnel Training Plan Based on Urban Agriculture

Youqin Yuan

Humanities Department of Tianjin Agricultural College

Tianjin 300384, China

Tel: 86-22-2378-9023 E-mail: cfxyy@126.com

Shoujun Sun

Tianjin Agricultural College

Tianjin 300384, China

Tel: 86-22-2378-9023 E-mail: cfxyy@126.com

Philosophy of Social Science, Tianjin Project: "Based on Urban Agriculture Non- Agricultural Specialized Subjects Developing Strategies in Agriculture University" Project No.: TJYY08-1-008

Abstract

This study aims to explore non-agriculture specialized subjects personnel training plan based on urban agriculture, which aims to reform the original training curriculum and intend to change it to be more related with the marketing needs. And realize the Universities and the market are on the mutual benefit and win track and jointly promote common development.

Keywords: Urban agriculture, Non-agriculture specialized subjects, Personnel training

1. Making clear about characteristic training idea based on the agricultural background

The school characteristic training idea has the important guiding sense to the school reform, construction and the development. This article thought that the higher agricultural universities should clear about non-agriculture specialized subjects training idea, mainly should grasp the following several points:

1.1 Insisting on the overall design and the key breakthrough unifying principle in the school characteristic's training design

The layout and the cultivation, one must set up the long-term developmental strategy and the long-range objective, overall plans, the design, forms planning for action which the construct with proper priority, step by step implements; Two must in the entire distribution, the plan, in the design foundation, generalized analysis own superiority and the insufficiency, as well as the school characteristic construction plan, according to the key construction goal, with steps, to have the plan, to have in administrative levels, through the partial construct with proper priority, realizes the school characteristics. On the one hand takes the leading breakthrough, depends upon the local penetration to lead the whole higher agricultural universities non-agriculture specialized construction and the development.

1.2 Insisting on the utility and local compatible principle

The so-called regional characteristic refers to the region which the school subordinates as a result of its economical, technical, the culture need to develop, to specific school in personnel training aspect specific request. For example, US's University of Wisconsin takes its unique serves in its similar university as the place school idea. The higher agriculture universities' non-agricultural specialized establishment, must manifest its region characteristic, should be with the place agriculture present situation and the trend of development consistent.

For social services functions, the design of its specialized training plan of Agricultural Universities should show their regional characteristic. And agricultural development services as their own obligations and responsibilities, there must be masters of the initiative. Solve the “three rural” issues, not only do agricultural professionals, Agricultural Universities must not only be non-agricultural qualified personnel training, but also actively participate in decision-making in local economic construction and consulting for local economic development to solve technical and management problems, providing scientific research, technical services and so on.

1.3 Insisting on the service “three rural issues” and “building a new countryside” as the fundamental task

In connection with the rural reality, students of democracy, the rule of law, professional ethics, education and other changes in customs and traditions. Non-agricultural students in the study period, it must be stressed that they actively participate in the production practice, investment in social life so that they can fit in difficult circumstances and in production and daily life practice, the acceptance of ideological, professional and practical training in life, not only to understand in rural areas, but also understand the world; not only to master the professional knowledge, but also to be able to use it to build a new socialist countryside in the go. Non-agricultural graduates should be encouraged to enthusiastically go to rural entrepreneurship, with love “three rural” issues the determination of their own culture to become the backbone of agricultural modernization and rural forces to enter the leader of the socialist market economy;

2. Focusing on practice, to explore the characteristics of agriculture in personnel training plan

This article is intending to discuss the combination of the actual school and non-agricultural training practice in the Agricultural Universities, through the integration of school education and employment training for the curriculum activities and employment programs complement each other, to promote employment and education, teaching reform, and to explore the suitable application of non-agricultural personnel training mode.

2.1 Non-agricultural personnel training plans and content features in Agricultural University

This paper follows the teaching of professional education and basic rules of objective law, based on another idea to explore a new kind of non-agricultural personnel training programs to be able to adapt to 21st century agricultural universities on non-agricultural teaching reform and personnel training requirements, but also a scientific, systematic and operational. The cultivation of this new program elements include: the “four modernizations”, “three-cycles”, “two categories”, “One goal.”

(1) The “four modernizations” program that is optimized, the practice of enhanced flexibility in courses, and to diversify elective courses.

“The course Optimize” aims to help pupils develop the necessary innovation and deep knowledge base and broad academic horizon; “strengthening the practice” purpose is to train students in the solid innovation required skills, work style and ideas; “compulsory flexible”, that is compulsory in the professional curriculum system. The reduction of compulsory school, the students studying greater autonomy, increasing categories required courses for students in the compulsory study of the professional knowledge to provide choice and space; “election diversification”, that is, permitting students to take full advantage of the schools, the community and many other educational resources, selecting a variety of learning content, and it can be can also be a survey course, which can be classes, also can be an academic report; it can be self-study courses also can be knowledge study or a training and so on.

(2) “The three integration” that is, “agricultural knowledge and expertise in integration,” “professional learning and employment training Integration”, “quality education and the integration of the learning process.” In accordance with the knowledge, ability and quality of the formation law and progressive development of students over a four-year study period. Capacity and acquisition process in time of the scientific arrangements. “The integration of Agricultural knowledge and expertise”: the promotion of non-agricultural. Professional and interdisciplinary agricultural professional, the students studying professional knowledge, we must also learn how to be professional. Knowledge should go in to the “three rural” construction. “The integration of Professional learning and job training”: job training system to the introduction of the traditional disciplines of education system, both organic and factoring. “Quality education and the learning process of integration”: Quality through systematic training, the development of students studying the source of motivation to cultivate self-confidence, changes in student learning. Study concept and behavior, to enable students to further improve the self-produced, the need for self-perfection, the activation of the study and improve the learning outcomes, and thus improve the overall quality of students as a whole.

(3) “Two categories” Students: “application-oriented” and “continue to shape the deep.”

Training personnel to identify the two exports: “Application-oriented” training programs: the School of education and employment training integration of personnel training programs. Application-oriented training programs to transform the capacity of knowledge-based, employment-oriented and standards as the goal posts to the quality of training as the core of the original subjects of school education system and job training activities of the training system of vocational integration, and ultimately realize the students to develop into a person qualified prospective career goals.

“Continue to shape the deep” training program: non-agricultural students in undergraduate study period, if the professional knowledge of the North Korea has a deeper interest, you can sit under the guidance of teachers related to professional graduate students, and the move towards higher education, the development of deep-rooted This is also the current agricultural universities and colleges in non-agricultural graduates, a trend, and is a strong proponent of the development trend.

(4) “One goal” is to cultivate widening outlet ;high-quality, innovative talents.

This is in accordance with social, economic, educational development needs, combined with practical agricultural colleges and universities to determine the overall objective of the personnel training.

2.2 The framework of non-agricultural professional personnel training plan in Agriculture Universities

Because “continue deep modeling” personnel training program emphasizes the students for professional knowledge and grasp of public courses, the structure is relatively simple, so do not make too much discussed, this section focuses on “employment-based” training programs constitute the framework of “Employment-type” training program by the professional knowledge of education and employment of knowledge composed of two systems of education: knowledge into competency-based, employment-oriented and standards as the goal posts, and ultimately be able to improve agricultural universities and colleges in non-agricultural employment rate of students and training to adapt to society and the workplace to adapt to the application-oriented personnel.

School Specialized Education System - a professional qualification-oriented education system, including basic knowledge of cultural and professional knowledge. Advantages: a relatively stable teaching plans and norms, knowledge, comprehensive and systematic, can be for future career development and lay a good foundation of knowledge. Its limitations are: the implementation of teaching plans longer enough for career changes in sensitive information, personnel training results have lagged behind, and most likely caused when the students graduate skills become unsuited for the requirements in the post. Combining the school employment and training system - to the ability of employment-based training system, including the quality of training and vocational skills training. Its advantage lies in: short, flat, quick training in the development and implementation of features, so that it can keep pace with the market, and with the market demand changes, thus information on occupational changes is sensitive to training content and practical, flexible, for strong. Students appropriate to the current reality starting from the training programs and enable students to mobilize active learning.

① The putting though of quality of education and the entire learning process

Through Quality systematic training, the development of students studying the source of motivation to cultivate self-confidence, change the concept of student learning behavior and learning to enable students to further enhance the self-produced, the need for self-perfection, the activation of the study enthusiasm, improve the learning outcomes, thereby increasing the overall quality of students, and improve the overall quality of the turn, so that students in the quality of activities performed better for the well, thus forming a virtuous circle.

② The putting though of School specialized subject education system and employment training system

The putting though of School specialized subject education system and employment training system for their own advantages, combined with the requirements of training objectives, and the two systems of organic integration courses. First of all, the system, curriculum goals, modes of teaching, assessment evaluation methods to adjust employment and training will be suitable for the implementation of the contents of the transfer system for the implementation of employment training courses and lay a solid foundation; re-employment training system through intensive training so that students basic skills of professional and technical; Finally, let students by completing the mission on job-specific practice, and by the quality of learning, knowledge, skills in line with the requirements of occupational status to be integrated application environment, together, realize upon graduation to become qualified person quasi-vocational training objectives.

2.3 Carrying out of non-agricultural personnel training plans in Agricultural Universities

“Employment-type” training the implementation of the program is divided into three stages, namely the school education system and job training system for financing the design phase, implementation phase of the teaching and student feedback from post-employment phase.

The first phase: the design phase of integration

(1) Determine the professional: in the socio-economic development trends, regional economic development prospects and the status quo based on the analysis, combined with building a new socialist countryside on the practical needs of professionals, understand the local business, government, administrative organs, “San Nong” of non-agricultural personnel in positions of composite demand, determine the direction of professional services.

(2) Curriculum development: According to the workplace standards and professional requirements, taking into account

international standards for the industry to develop job analysis form, the original teaching programs in schools on the basis of the two systems in their curriculum development based on courses together and then adjust and integrate.

(3) The formation of “employment-type” training program: According to the application of employment-oriented training model composite characteristics, formation of personnel training programs.

Second Phase: Teaching the implementation phase

(1) Advise their students to study a clear goal: the quality of systematic training to develop the students study the source of motivation and training of students self-confidence; and employment guidance of introduction, allow students to correct understanding of self, awareness of the career world, and learn the choice and decision-making, on the basis of clear learning objectives for four years, and promoted in schools during the study. At the same time guiding students to a correct understanding of “San Nong” so that students can re-position themselves for future career would result in more post-graduate students in the construction of a new rural service.

(2) Systematic teaching and training

Through the “two interactive” teaching methods of organizational learning for the society to cultivate qualified personnel in the application.

First, the teacher-student interaction. Do not encourage classroom indoctrination, and the requirement to provide students with the necessary teaching environment, to stimulate their motivation to learn, and promote their active participation in all aspects of teaching, teachers not only impart knowledge to students, for students of vocational development concept to make the necessary guidance, and to impart knowledge relevant to agriculture.

Second, the curricular and extra-curricular interaction. The use of “going out” (social activities, practice), “Please come in” (Training division personnel, entrepreneurs into the classroom) approach, through the “two docking” (social and classroom docking; learning content Docking with the job content), narrowing the distance between schools and society.

(3) Employability training complex: that is a true and comprehensive practical training to work environment, agricultural universities and colleges in non-agricultural students through in-depth rural areas, offices, schools, military units, to themselves in all walks of life actually jobs, the understanding of society to understand the country’s major policies and national sentiments, in the study in progress, in practice, growth, learning to look from the reality question, the personal future, values with the “three rural issues” and social needs combined gradually from a bystander into a conscious builders.

(4) Evaluation

To evaluate the model: (Investigate evaluation mode)

- 1) Training objectives (summative evaluation)
- 2) Objectives for each course (formative evaluation)
- 3) The effect of classroom teaching (Development and Evaluation)

Third Phase: Phase matching services

School employment sector provides students with the employment of professional services that have been induction of students to track the employment services, then the employing units to provide timely feedback to the school curriculum development team for the ongoing amendments to the curriculum so that courses lasting to maintain consistency with the needs of the community.

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Sociological Analysis of Absence of Rights and Interests of Mobile Population and Crimes

Yun Han

School of Social Work of China Youth University for Political Sciences

Beijing 100086, China

Tel: 86-10-8856-7627 E-mail: misshan1969@sohu.com, hanyun@cyu.edu.cn

Abstract

Safeguarding rights and interests of mobile population and preventing crimes committed by mobile population can not do without urban development, governmental administration, improvement in and implementation of laws and regulations and supervision and support from social forces. But in practice, the rights and interests of mobile population are often neglected during urban development, local governments face conflicting objectives, interests and responsibilities when coming down to mobile population, the laws and regulations can not be effectively enforced, and there is no effective supervision and support from social forces. To safeguard rights and interests of mobile population and prevent crimes committed by mobile population, the governments at all levels should be people oriented, adopt a scientific outlook on development and create sound interactions among the four subsystems.

Keywords: Mobile population, Rights and interests and crimes, External environment

China has experienced great changes in the past 30 years since reform and opening up and is being transformed to a modern country. A good many social problems in current China are associated with this transformation which is called by sociologists as "deconstruction of traditional society and reorganization of modern society". This social transformation results in frequent population flow and huge mobile population in cities. The mobile population has grown from 70 millions in 1993 to 140 millions in 2003, more than 10% of the total population. Despite of its large size, the principal part of mobile population is rural farmers, which is a vital feature of the social transformation period in China. The mobile population with farmers as the principal part is believed to be a disadvantaged group living at urban fringes as their righteous rights and interests are often infringed. Lawful rights and interests of mobile population, such as political participation, labor employment, social insurance, inhabitation, spare-time culture and children education, can't be safeguarded and even their physical and mental health can't be guaranteed. Under this social background, the crime rate of mobile population is rising and more serious crimes are being committed, which threatens China's harmonious and stable society. In this paper, the author tries to make functional analysis of the external environment leading to the absence of rights and interests of mobile population and the crimes they commit, and make preliminary sociological survey of the relations among city management, acts of government, laws and regulations and social forces with an AGIL model.

1. Research on causes to absence of rights and interests of mobile population and crimes

Many experts and scholars analyze why rights and interests of mobile population are infringed on and why mobile population commit crimes by considering social factors and mobile population factors. As to social factors, the dualistic urban-rural structure and restrictive household-registration system lead to unequal social status and mental imbalance of mobile population; in China's labor market, the supply exceeds demand and farmers in the mobile population has no power to safeguard their rights; the defective legal system can't safeguard rights and interests of mobile population; the administrative system does not work efficiently and the administrative law enforcement officials from such sector as labor inspection, public security, urban management and business administration often look down upon mobile population, deny justice, enforce law in a slack manner or abstain from an act when the rights and interests of mobile population are infringed. In such a case, the mobile population sometimes strives against administrative enforcement of law or safeguards their rights and interests in unlawful means; the social security and rescue system is deficient and there is a lack of support from government and social organizations. As to mobile population, most of them are rural

farmers who have poor education background, lack their own organizations and are indifferent to safeguarding rights according to law. When coming across injustice and unfairness or when their rights and interests are infringed, they may resort to illegal or wrongful means if they can't get social support and help.

In my opinion, most of mobile population are rural farmers, safeguarding their rights and interests can't be separated from preventing their crimes, and the principal cause to crimes of mobile population is that their lawful rights and interests can't be safeguarded and they have no way to turn to. From this point of view, if rights, benefits and freedom of mobile population are safeguarded, crimes of mobile population would be reduced greatly, therefore, local governments should give priority to safeguarding lawful rights and interests of mobile population instead of simply taking them to shelters or dismissing them or placing undue emphasis on the fall of crime rate. In this sense, the external environment for safeguarding rights and interests of mobile population should be mainly analyzed as it has a close relation with the crime rate of mobile population.

2. Functional analysis based on AGIL Model

It is seen from above views that this social movement safeguarding rights and interests of mobile population and preventing crimes of them develops and functions in a specific environment or a special system, thus the effect depends on the external environment, namely whether different parts of the environment or principal parts of the movement could cooperate and interact with each other, which could be interpreted with the functional analysis method of Parsons. According to Parsons, a functional body can give play to its functions and maintain coordination and stability of the whole only through meeting four demands. The four demands are: A) environmental adaptation, G), objective acquisition from environment, I) system integration, and L) functional mode maintenance. The external environment safeguarding rights and interests of mobile population and preventing crimes of them can also be a functional body, and its sound operation and development can't get away from the effective operation, inter-coordination and progress of the four subsystems. This functional body does not start with macroscopic social structure and system or microscopic individuals, but studies problems in an external environment with multi-relations.

In this functional body, the primary mission of A) city is to provide means of production and services, pursue urban development and prosperity and ensure internal solidarity, stability and sound city operation. Urban development is the precondition for existence of mobile population and urban development and mobile population are in mutual dependence and interaction. Properly handling their relationship could boost urban development and guarantee social stability, thus urban development is to adapt to the environment of safeguarding rights and interests of mobile population and preventing crimes. The responsibilities of G) government is to establish policies, laws and regulations, exercise labor administration and act as arbiter in order to normalize the behaviors of employing units, prevent them from infringing upon the lawful rights and interests of mobile population and create a favorable environment for social development. Therefore the government is the decision maker and executor for attaining the goal of safeguarding rights and interests of mobile population and preventing their crimes. I) laws and regulations, as the most authoritative social control means, could be used to coordinate group relations, safeguard the interests of each party and promote integration of social forces, but the effective implementation of laws and regulations depend on whether they are in reason, whether they are executed fairly and whether the public understand them. L) Social forces include development of social morality and support from social organizations. Development of social morality refers to encouraging people to abide by social behavior standards through their internal belief and social public opinions, and could be used to create the social ethical environment for safeguarding rights and interests of mobile population and preventing crimes of them. Social organizations include NGOs and trade unions for providing social support to safeguard rights and interests of mobile population and providing sustained supervision mechanism.

2.1 Current problems

To safeguard rights and interests of mobile population, the above four subsystems need to function normally. To maintain a system for safeguarding rights and interests of mobile population and preventing crimes of them, the functional requirement of the four parts needs to be satisfied, namely city management and development should adapt to the environment for safeguarding rights and interests of mobile population, local governments will guarantee the attainment of goals of safeguarding rights and interests of mobile population, laws and regulations would integrate social groups and forces and social forces supports and maintains this functional body. What is more important is that the four subsystems should be coordinated smoothly and maintain harmonious and stable relations in order to boost the healthy development of the functional body. But in practice, the four subsystems are often disconnected, for instance, the government does not supervise urban development and enterprise employee management; laws and regulations are defective and not well enforced by government; there is a lack of social morality and good faith at enterprises; and it is not strongly supported by public opinions. This is the reason why lawful rights and interests of mobile population can't be safeguarded and why mobile population crime rate is on the rise. Through AGIL functional model, what we would analyze is the external environment where rights and interests of mobile population are lost and the disconnected relationship.

3. Opportunism during urban and enterprise development and absence of government

In the system safeguarding rights and interests of mobile population and preventing crimes of them, cities and enterprises shoulder direct and principal responsibilities, while the reality is that cities and enterprises have opportunistic tendency, as mobile population is in face of strict identification and status restriction as well as discrimination and unfair treatment from urban society. The majority of mobile population is expelled to a "secondary labor market" different from urban population, where the supply exceeds the demand in the long term (a typical buyer's market). This is in connection with the opportunism during urban development, cities hope to maximum interests at lower cost, and the cheap labor force of mobile population correspond directly with this objective. Therefore, cities hope to get adequate mobile population as labor force while they are reluctant to change the poor status of mobile population in order to keep the "buyer's market" in the long run. In the "buyer's market", mobile population is in a disadvantaged position and their rights and interests are likely to be infringed. Enterprises also tend to maximize their profits at the minimum cost, thus they also have the opportunism tendency just like cities. As compared with enterprises, mobile population is a weak group and it is more difficult to have their rights and interests safeguarded. At the present time, the biggest problem is that the infringement upon rights and interests of mobile population by enterprises is not strictly treated, which further encourages the opportunism of enterprises.

When their rights and interests are infringed, the mobile population is contradictory as to whether they should take measures to safeguard their rights. As the mobile population has no special organization and hopes to keep their jobs and basic source of income, thus they may not resort to crimes if the infringement act of cities and enterprises can be accepted. In reality, the crime rate of mobile population is on the rise, showing the absence of government besides opportunism of cities and enterprises.

The government is the executor of the objective of safeguarding rights and interests of mobile population and preventing crimes of them and government works directly affect the realization of this objective. In recent years, the central government has formulated a series of policies on mobile population, urging local governments at all levels and related functional departments to safeguard rights and interests of mobile population. But the unequal domiciliary register system is still kept, the dualistic urban-rural structure has not been changed fundamentally and no compulsory education and social security are provided to mobile population yet. In fact, the central government has transferred the task and responsibility of safeguarding rights and interests of mobile population to local governments and has not made substantial adjustment at central level, and the national treatment of mobile population is still not given. Moreover, the country has not provided effective social security and support to mobile population, thus mobile population can only resort to themselves when their rights and interests are violated. Without correct guidance, mobile population tends to safeguard their rights and interests in illegal and improper means and may even commit crimes.

In reality, although local governments at all levels have adopted measure to implement central policies and expanded the scope of participating departments (from labor security departments at the beginning to civil administration departments, public security sectors, building departments, financial sectors and judicial departments) and right-safeguarding scope. But it is clear that the government has not undertaken the role as arbiter and justice keeper, or the government is inefficient in safeguarding rights and interests of mobile population.

The interests of local governments are connected with urban and enterprise development, and the opportunism of urban and enterprise development would surely affect the formulation and execution of governmental policies. There is conflict between interests of local governments and rights and interests of mobile population. Professor Sun Liping from Sociology Department of Tsinghua University thought that the governmental snobbism would influence social justice. Local governments are in the same boat as cities and enterprises and they give priority to economy and enterprise development. To improve fiscal revenue and attract investment with favorable investment environment, local governments hope to maximum interests with less fiscal expenditure and they share common interests with some enterprises and do not hesitate to sacrifice lawful rights and interests of mobile population. This makes it come to a deadlock to safeguard the rights and interests of mobile population, damage the credit of governments and leads to crimes of mobile population when their rights and interests are infringed as they have no way to turn to.

4. Ineffective laws and regulations

It is unlikely to depend on the government to safeguard lawful rights and interests of mobile population, and it is laws and regulations that should guarantee the rights and interests of mobile population fundamentally. But related laws and regulations are invalid in fact. On one hand, related legal system and judicial mechanism are defective; on the other hand, the authority of laws and regulations is counteracted by the self-interest of local governments in the process of enforcement. When laws and regulations are executed, local governments, influenced by opportunism and utilitarianism during urban and enterprise development, impair the social integration function of laws and regulations. Therefore, in practice, laws and regulations can't be executed by local governments effectively.

The current legal system and judicial mechanism safeguarding rights and interests of mobile population are defective in

some aspects. First, mobile population is not well protected. With respect to enterprises, mobile population is in inferior position and related laws of labor are not appropriately directed to mobile population. Moreover, the most of mobile population is working at small and medium-sized enterprises and privately-run enterprises and business owners often replace written labor contracts with oral agreements in order to reduce production cost. In this way, the lawful rights and interests of mobile population can't be protected by law when they are infringed. Second, laws and regulations are not operable. It is specified in the Labor Law that the resolution of labor disputes is arbitration first and then litigation, which is challenging for mobile population, because it is costly and inefficient, so when their rights and interests are infringed, they tend to solve problems by themselves, or even commit crimes in some cases. Third, the judicial mechanism is defective. Mobile population is not well supervised and inspected owing to lack of technology, equipment and personnel, thus infringement upon rights and interests of mobile population can't be discovered and solved in time and mobile population crimes can't be prevented effectively. Upon disputes between mobile population and enterprises, juridical authorities often can't produce evidences or powerful evidences as juridical authorities has restricted ability of taking evidences and cross-examining evidences owing to the low education level of mobile population and as some enterprises refuse to provide original data or only provide evidences favorable to them.

Safeguarding rights and interests of mobile population and preventing crimes of them requires improving laws and regulations as well as judicial mechanism and requires interaction and influence of related legal factors, especially interaction between laws and regulations and local governments and urban enterprises. In a sense, laws and regulations function through such interactions and they would be invalid if such relationship is broken.

As mentioned above, some local governments, influenced by utilitarianism and opportunism during urban and enterprise development, place undue emphasis on economic indicators and don't hesitate to sacrifice the lawful rights and interests of mobile population in order to create a favorable investment environment and gain higher fiscal revenue and better achievement. The result is that the rights and interests of mobile population are not safeguarded and mobile population has no way to turn to when their rights and interests are infringed. Moreover, some enterprises share certain interests with local governments, thus local governments do not care the infringement of rights and interests of mobile population by business owners. "Local authorities select investment environment, and press and deprive labors of rights and interests". In such a case, laws and regulations become ineffective and can't be implemented in deed.

Therefore, laws and regulations alone are far from enough and they are nothing without social environment and interactive relationship for effective implementation. To follow out laws and regulations, restoring their authority and justice in the mind of local governments, urban enterprises and mobile population is the key for safeguarding rights and interests of mobile population and preventing crimes of them.

5. Inefficient supervision and support by social morality and social organizations

Social forces play an important role for safeguarding rights and interests of mobile population. The modern enterprises that absorb mobile population as labor force should, in accordance with the requirement of modern vocational ethics, standardize the system of personnel placement, safeguard lawful rights and interests of mobile population and ensure their legitimate interests. In particular, the enterprises that directly employ mobile population to take hard or dangerous jobs must actively sign labor contracts and insurance contracts with mobile population for safeguarding their rights and interests and fulfill their responsibilities as contracted. As a modern enterprise, safeguarding lawful rights and interests of mobile population is to undertake social responsibilities and practice social morality. But in reality, some enterprises, influenced by opportunism and utilitarianism, infringe upon rights and interests of mobile population to lower labor cost and pursue profits by making use of weak points of mobile population, such as lack of rights-safeguarding awareness and poor organization. They ignore lawful rights and interests and physical and mental health of mobile population and thus lack social morality and unprejudiced socialist market spirit.

Most of Mobile population is from relatively backward rural districts with dense traditional colors, and they know little about employment system and contract system in modern cities and enterprises, and they are unfamiliar with market rules, laws and regulations and do not know how to safeguard lawful rights and interests in the labor relationship. In particular, the loopholes of the system safeguarding rights and interests of mobile population deprive mobile population of voice right, thus no timely and effective solution could be provided when the rights and interests of mobile population are infringed. In the face of business owners lacking social morality and consciousness, mobile population feels powerless and can't seek external help. In such a case, mobile population is likely to commit crimes to safeguard their own rights and interests.

Social morality means safeguarding lawful rights and interests of mobile population from ideological level, namely people's belief and their moral level, and the goal is to create a social environment where mobile population is well treated. Public opinions and public supervision are direct and effective approach to check whether social morality could attain its goal. In reality, we could also witness this force, for instance, since 1990's, investigators and media at home and abroad have been continuously disclosing the infringement on lawful rights and interests of labors at some export processing plants in Pearl River Delta and they pointed out that transnational companies should be to blame. Such

public opinions led to resistance against some well-known brands, forcing some transnational corporations to make response and to push ahead with social responsibility inspection, labor contract system and production manual implementation in plant.

Besides social morality and public opinions, the function of social organizations can't be ignored. An important reason why the rights and interests of mobile population are infringed is that mobile population is dispersed and not organized for safeguarding rights. Currently, it is quite difficult to establish an organization to safeguard rights of mobile population and existing social organizations also can't play this role. The reasons are as follows: first, mobile population has not urban population identify and is not permitted to establish organizations in cities. Moreover, there is a huge mobile population and it is discriminated by some government agencies, thus it is full of difficulties for mobile population to establish organizations. Second, it is difficult for trade unions to safeguard the rights and interests of mobile population, which deprives mobile population of strong social organization support. In a modern enterprise, the trade union is actually a coordinator and has no substantial power to safeguard the rights and interests of mobile population. It is quite difficult for trade unions to play their role in deed without support of labor inspection and social security departments.

Due to lack of ways to voice and safeguard their rights and interests, mobile population has organized some "associations of fellow provincials or townsmen", "fraternal order", etc. in many cities, which is due to their isolation from urban organizations and aims to meet the demand for safeguarding their own rights and interests. Therefore, the government and society should correctly guide such self-organized organizations instead of regarding them as illegal organizations and suppressing them. Without social morality and proper guidance of social forces, such organizations may commit crimes and become floating criminal organizations when the rights and interests of their members are infringed, which deserves attention of the society and the government.

6. Conclusion

Through survey of the external environment safeguarding the rights and interests of mobile population, we are clear about the relations and interactions among the four subsystems in this system of act. For the time being, this external environment is not optimistic and the four subsystems are disconnected and can't interact with each other smoothly. Of course, safeguarding rights and interests of mobile population depend on both improvement in the external environment and improvement in the quality of mobile population, especially the promotion of rights-safeguarding awareness and organization degree. In this point, local governments should bear responsibilities and stick to the principle of putting people in the first and governing for the people. As to implementation of specific policies and principles, local governments must abide by the principles of openness and fairness, apply executive power in accordance with laws and regulations and adopt proper measures to safeguard lawful rights and interests of mobile population and achieve balanced development of society and economy. Only after the lawful rights and interests of mobile population are reasonably and effectively safeguarded, mobile population can be melted into urban development in deed and crimes of mobile population can be effectively controlled.

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Current Situation and Protection of the Diversity of China's Marine Life

Yan Li

Biology Department, Dezhou University

Dezhou 253023, China

E-mail: lylxy0524@126.com

Abstract

The diversity of marine life plays an important part in that of global creatures. This article elaborates on the current situation and application of China's marine ecosystem, analyzes the main causes for the threats to China's marine life diversity, sums up China's achievements in protecting the diversity of its marine life and puts forward some protective countermeasures based on the reality.

Keywords: Ocean, Creature diversity, Economy, Development

The ocean is a cornucopia of marine life diversity, which is mainly manifested in marine life resources. As renewable resources, marine life can provide vast wealth for human beings in nutrition, health, medicine and so on because it is not only an important source of food but has important medical values. China has a large area of oceans as well as a long coastal line, hence having world reputation for its diversified marine life (Chen, 1994). Here, the protection of marine life diversity refers to that of biological resources and human living environment.

1. Current Situation of the Diversity of China's Marine Life

Here the diversity of marine life refers to the variety, changeability of marine life as well as the complexity of their habitats. According to intrasystem biological group structure and functional characteristics, it can be divided into three layers including species diversity, genetic diversity and ecological diversity. It mainly involves issues such as rich functions, species diversity and the stability of species groups as well as the whole ecosystem, regional biological geography and richness in regions and the influences human activities and environmental degradation have on biological group structure (Zhu, 1994).

1.1 Genetic Diversity of Marine Life

Genetic diversity provides a basis for evolution and adaptation. Generally, the richer genetic diversity is, the stronger the adaptability of species to the environment will be. Marine life has greater genetic diversity than terrestrial life and 5% to 15% of genetic series in many marine species are hybrid. The ultimate goal of our genetic diversity research is to make use of its gene bank in two ways: one is an application without modification and the other is one with modification. In spite of the differences in the application and system of gene banks, they have a common goal, that is, to improve the objective appearances of wild economic animals and provide objective genes for this improvement (Zhang, 1993).

Although China hasn't conducted its research on the genetic diversity of marine life for a long time, it has achieved rapid progress. An ultimate way of this research will be an analysis on DNA nucleotide sequence. In late 1980s, scientists began to switch their attention to a research on mtDNA, which is easier to be detached from nuclear DNA and be purified. In addition it will not be recomposed because it is maternally inherited; its evolution pace is 5 to 10 times faster than single-copy DNA. As a result, further achievements have been made in the research on mtDNA in China (Zhang, 1993). Besides, the research of genetic variation of marine life molecules plays an important role in explaining group differentiation and identifying the rules of species evolution as well as genetic breeding.

1.2 Species Diversity of Marine Life

China has an ocean area of $3 \times 10^6 \text{ km}^2$, hence a considerable variety of marine species. As recorded, China has 20278

species belonging to 44 classes. Besides, China has some marine species native to it or some rare species.

1.3 Ecological Diversity of Marine Life

The complexity of ocean environment leads to a splendid marine ecosystem, which is divided into coastal wetland ecosystem, coral reef ecosystem, upstream ecosystem and deep sea ecosystem. Among these, the coral reef ecosystem in South Sea is called "Tropical Forest in Ocean". Most of the coral reef there is reef-building coral, having a rich variety of life forms, including poriferan, coelenterate, mollusc, crustacean and echinoderm, which make up a complex and fragile ecosystem.

2. Threats to the Diversity of China's Marine Life

The ocean provides our human beings with rich resources and favorable natural conditions for the sustainable development of human social economy. However, human beings have destroyed the ocean environment consciously or unconsciously when exploiting nature. Currently, the ocean, as a huge ecosystem, is suffering from an unprecedented ecological and genetic stress. The impacts of human activities on marine life diversity in genetics, species, ecology are mainly manifested in fishery, mariculture, pollution and eutrophy, invasion and the destruction of living environment.

The snapper, for which China's offing is most famous, had an annual production of 1000 to 2000 tons in 1930s and 1940s. Later, however, with the intensive fishing of both domestic and foreign fishing boats, the resource was severely destroyed and it is quite difficult to find them nowadays. What's worse, an important species, Chinese prawn, which had a production of over 4000 tons in 1979, has only more than 100 tons now.

2.1 The Influences of Fishery on Marine Life Diversity

Due to the present rapidly-increasing fishing boats and improving fishing methods, fishing resources have been reduced or even exhausted now and many high-quality species have no fishing season any longer. Besides, wasteful fishing and by-products from fishing have destroyed many kinds of rare marine life. Some fishing methods, such as using trawling nets, poisoning fish and exploding fish, have severe influences on the marine ecosystem.

2.2 The Influences of Mariculture on Marine Life Diversity

China's mariculture industry has a long history, in which the large-scale, perfectly-managed mariculture system has eased the stress for wild species. However, it has also influenced the shallow ocean ecosystem, such as its species structure, food chain and local nutrition import.

2.3 The Influences of Pollution and Eutrophy on Marine Life Diversity

Chemical pollution is mainly caused by the discharge of land-sourced pollutants, the exploitation of oil in the ocean as well as the leaking of oil during being shipped. Pollutants may poison or hurt marine life, influence their normal reproduction or cause negative genetic mutation. A more direct and serious result from chemical pollution will be the eutrophication of ocean water, which will lead to red tide ultimately.

2.4 The Influences of Species Invasion on Marine Life Diversity

Human exploitation in the ocean may introduce some new species consciously or unconsciously, which are called foreign species. Accordingly, their settling down activities are called ecological invasion (IMAI, 1999), which will influence the local marine ecosystem and may cause the extinction of some former species.

2.5 The Influences of the Destruction of Living Environment on Marine Life Diversity

Some destructive activities, such as enclosing tidal flats for cultivation, reclaiming land from water areas, some ocean or coastal projects, artificial constructions, channel dredging, may disturb the normal activities of marine life to a small degree (e.g. a 2/3 reduction of China's red forest area caused by reclaiming land from water areas) or even the complete loss of the marine life living environment.

3. Protection of the Diversity of Marine Life

3.1 Improving the Sense to Protect Marine Life Diversity and Controlling Resource Utilization Intensity

Due to the present common shortage of knowledge about biological diversity, scientific, technological and institutional capacities should be made use of to provide a basic understanding. Besides, some mass media can be employed to publicize it or include some relevant issues into education program. All people including women and children, especially leaders at all levels, should realize that the ocean is a huge resource cornucopia. Although all countries around the world are competing to develop marine resources, they will be exhausted some day.

3.2 Establishing and Perfecting Policies, Regulations and National Strategies about the Protection of Marine and Coastal Life

Chinese government has always been putting much importance on protecting marine life diversity. It is the first one to approve *Convention of Biological Diversity*. In addition, as one of signatory nations to *United Nations Convention on*

the Law of the Sea, China resolutely performs its rights and obligations to develop, utilize and maintain the marine life in its ocean areas and the open seas. Chinese government has also established some regulations and action plans for the protection of marine life diversity.

3.3 *The Construction of Scientific Investigation Method and Ecological Environment Monitoring System*

Currently, China National Bureau of Oceanography has established a national ocean environment monitoring system composed of satellites, planes, boats, buoys and onshore, gaining an array of valuable materials and accomplishments of marine and coastal life diversity. In addition, it has issued over a hundred communiqués, yearbooks and reports on marine environmental quality. In order to monitor the typical marine ecosystem, local ocean administrations at different levels have established many marine environment monitoring stations together with others or just by themselves to conduct their monitoring duties on regional marine environment.

3.4 *The Construction and Management of Marine Natural Reserve Areas*

China has established a quite perfect marine natural reserve areas system. Currently, there are over 60 areas of this kind constructed and managed by China National Bureau of Oceanography or other relevant departments, in which 18 are national ones. These reserve areas cover all the main marine species in China, hence protecting many rare ones.

3.5 *Conducting Integrated Management of Ocean and Land and Improving Marine Environment from the Source*

We cannot only dwell on the ocean when we talk about how to protect the diversity of marine life, but find out the source to prevent land-sourced pollutants from pouring into the ocean. In addition, the principle of “the person who makes the construction is expected to treat and compensate for it” should be taken into consideration in all ocean-employed projects to reduce their influences on the environment to the smallest degree.

3.6 *Establishing International Coordination System to Maintain Ecological Balance Together*

A lot of biological resources are owned by the whole world, so it isn't a nation's business to protect these resources. A nation's biological resources may be affected by the exploitation activities conducted by another nation. Therefore, all nations are expected to have more exchanges about their activities in their ocean areas that may have some negative influences on other nations' biological diversity and to sign some bilateral, regional and multi-lateral agreements accordingly.

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The Evolution and Examination of the College Physical Education since the Founding of the People's Republic of China

Hui Lv

Department of Arts and Physical Education, Changsha Social Work College

Changsha 410004, Hunan, China

E-mail: lvhui_6172.com@126.com

Abstract

Sports are the important demonstration of life and the driving force of the life evolution. To develop physical education in accordance with the law of life will lead the teaching of physical education to a direct confrontation of life. That is to say, the regulation and control of human motion can achieve the transformation of the structure and function of a life, which ultimately provides the impossibility of a healthy body for the life significance. The college physical education, in order to meet the requirements of cultivating the cross-century talents, will enter a new stage of reform and development with the implementation of "revitalizing China through science and technology" and "national fitness program". To meet the ideological need of "linking the past and carrying forward the cause and forging ahead into the future", this text gives a systematic summary of the college physical education, expounds and examines the model of "skill classroom", "physique classroom" and "health classroom" from the perspective of physical education class model, displaying the future of the 21st century physical education from the angle of life classroom.

Keywords: Physical education classroom, Evolution, Examine, New perspective

1. The foreword

It is well-known that the teaching of physical education (PE), as a basic form of organization of college sports, is one of the compulsory curricula provided in the teaching programs. However, during the course of completing the task, with the changes of the time, the constantly updated educational thoughts and ideas aiming at agreeing with the social changes have always affected the direction of its development, and displayed distinct characteristics of the times. In order to constantly sum up the experience and to draw rich nutrition from it, to seek development through reform and inheritance to promote the deeper reform of college physical education, it is necessary to clarify the development of teaching model of Chinese college physical education since 1949. And it will be used to be the foundation for the future. (Han, 1999)

2. The evolution of the class model of physical education in the People's Republic of China

2.1 Skill classroom (1949 - 1966)

In the early period of the People's Republic of China, the Communist Party of China and the Chinese government attached great importance to physical education in schools, which laid an ideological foundation for the development of it. At the same time, using experience of school physical education in the former Soviet Union as reference, they finally set up the socialist physical education in schools, and made it clear that it should play a role in cultivating all-round socialist builders and successors. The college physical education, which initially took learning the teaching experience from the former Soviet Union and implementing the "Labor and Health System" as the main content, had began to fundamentally change the open type or so-called from-first-to-last type of teaching method and led the mass physical activities and training tasks centering the "Labor and Health System" to an gradual growth. (Han, 1999)

Affected by completely absorbing the ideas of the former Soviet Union, in accordance with the physical education theory in special recognition in the book of Theory of Physical Education advanced by Cherri Choeff, an physical expert of the former Soviet Union, physical teaching in Chinese higher schools had inherited the educational system of

1950s of the former Soviet Union and taken cultivating basic knowledge and skills as statutory objective of the guiding ideology. (Lu, 1986). In general, although affected by the trend of Left thought, physical education still developed in a twisting way.

2.2 Physique classroom (late in 1970s 70s – 1990s)

Since October, 1977, guided by the spirit of the 3rd Plenary Session of 11th Party Central Committee, all things have been set right and the school physical education have been restored. In 1978, Syllabus of Physical Education in Colleges and Universities was re-enacted. The Ministry of Education and other two ministries jointly issued Notice about Strengthening Physical Education in Schools. The Party's leadership over the work of college physical education had been strengthened and the Party's education policy had been implemented. Attention began to be paid to cultivating the teaching staff. There appeared a group of excellent models in the activities of restoring "Two Classes, Two Exercises and Two Activities" and carrying out National Standard for Physical Exercises. In light of the situation, in 1979, the National Educational Administrations held a experience-sharing session of School physical education in Yangzhou and promulgated the "Provisions of School Physical Education" (Trial Draft), which gave a strong impetus to the development of work of school physical education on the basis of recovery and adjustment, and to some extent raised the status of the sports education in schools. (Han, 1999).

Accepting the historical lesson of the weak physical fitness of students in the period of Cultural Revolution, in the early 1980s, physical education in schools began to enter the reform and opening-up phase. At this time, the new "National Standard of Physical Exercises" began to be implemented and the experiment of reforming the school PE syllabus was carried out. In order to implement the "Provisions of School Physical Education", check and acceptance was specially emphasized in higher schools. According to the requirements of the program of "Implementation of further setting up and perfecting the Health and Physique cards, and investigating the physique and health of students", cards of physique and fitness were set up all over China. In May 1983, Conference in Xi'an was held again to give the research on physical education in schools. It finally arrived at the agreement that the Party's educational policy of all-round development should be seriously carried out. Combined with "National Standard of the Physical Exercises", the enhancement of physique was put apparently in the dominant position while "basic knowledge, basic techniques and basic skills" were stressed and enhancing the students' physique was set up as the guiding ideology. (Qu, 1996).

2.3 Health classroom (since 1990s)

With the social stability and sustainable economic development, people's lifestyle and life quality have been changed dramatically. The influences of the environment and community on people's health are getting increasingly prominent. And the physical health of students has been significantly improved. But there still exist some problems that can not be ignored. For instance, qualities of endurance and flexibility are declined or in stagnation. The vital capacity decreased too. The figure of obese children and overweight children grows at a faster rate. Rate of myopia is still high. Psychologically, Chinese students have some weakness in anti-setback capacity, willpower and sense of competition and crisis, the spirit of cooperation, etc. (Xiang, 2005).

In June 1999, the CPC Central Committee and the State Council convened the third National Education Work Conference and issued the "Decision on Deepening Education Reform and Comprehensively Promoting the Quality Education". It stressed that "good physical condition is the premise that teenagers can serve for the motherland and the people and the manifestation of vitality of Chinese nation." Schools were clearly required to establish the guiding ideology of putting health in the most vital position and effectively strengthen the work of school physical education. Adhering to the guiding ideology of "health first", the healthy development of students, the development of students as the center, and stressing the status of the subject are the basic concepts advanced in Sports and Health, a curriculum in China. These concepts highlight the healthy objective of the new curriculum to promote the overall development of the students' physical, psychological abilities, social adaptability, and the moral health. They also emphasize that the new PE curriculum should meet the requirements, and care much about the emotional experience of the students, thus identifying the centrality and the dominant position of the students. (Zhou, 2006).

3. Examining the PE class model of the People's Republic of China

3.1 Skill classroom

A skill classroom with the teacher as the center has rules of mechanical imitation, classroom discipline, and collective action to control the students while ignores their conditions and opportunities of selecting the study content. Although this type of thought and method of education produces positive influence on standardizing the teaching organization, systematizing the imparting knowledge and skills, it still hinders the development of the personality of a student, neglects the enhancement of physical quality, and to a certain extent limits the efficacy of PE.

3.2 Physique classroom

The so-called physique, the quality of the human body, is the integrated and relatively stable characteristics of the

morphological structure of human body, physiological function and psychological quality. The five indivisible factors of the human body morphological structure, physiological function, physical fitness, exercise capacity, psychological status and the ability to adapt to internal and external environments can depend on, affect and control one another. Among them, the body morphology are the material basis, physiological functions, physical and psychological conditions are the comprehensive reflection of physical fitness.

Under the premise of enhancing the physique as the guiding ideology, a lot of PE teachers unilaterally emphasize the biological function of sports while neglecting the students' psychological state.

The efficacy reveals two problems. The psychological and sociological efficacies are ignored. Furthermore, school physical education is a compulsory and mandatory sports activity. As long as the students take part they will be able to get the efficacy. But the long-term efficacy can not be predicted. Analyzing the dialectic relationship between physique and health, and expounding the transference of the guiding ideology of school physical education from Enhancement of Physique to Health First are the emphasis that the work of School Sports should exert the effort on. (Wang, 2006).

3.3 Health Classroom

Health or fitness is a relative and dynamic concept. With the changing times and the evolution of the medical model, people have better and sounder understanding about health. The traditional biomedical model believes that the absence of disease is called to be healthy. In 1948, the World Health Organization (WHO) in its Charter defined health as that health is a general concept which does not only mean the absence of diseases or weaknesses, but also refers to the good agreement or harmony of the body, psychology and society. Along with the social progress and the medical development, the concept of health has broader scope. It is extended gradually from the pure physical health to mental health, social health and moral health. That is to say, the ideal state of health is not only free from disease, but also full of energy and vitality. It also means to maintain a very good social relationship with others. In general, health means that a person is in a very good condition. In 1990, WHO added in some relevant documents to the definition of health. It says that health should include four aspects, physical health, mental health, good social relations and moral health. The idea of Health First highlights the student-oriented development, embodies the harmony of body-building and health. It gives more concern about the learning interest, learning attitude, emotional experience, initiative thinking and innovative consciousness of students in the process of body building. As far as the teaching objective is concerned, Health First displays the organic unity of the body, psychology, ability and morality during the growth of the students. As to the teaching setup, it highlights the close combination of life, nature, environment and health, which is helpful to set up and perfect the healthy concept of sports and values. (Xiang, 2005).

4. A new perspective of the college PE class model—Life Classroom

21st century is the starting point of another millennium in the history of human beings. At this turning point, mankind is stepping into the information age at an astonishing speed. The advent of the information age has greatly changed people's way of thinking and learning, and resulted in a personalized education. A proposition appears. How to give concerns to the state of life of the students in class? How to cultivate the students' creativity, initiative and flexibility? These questions have been explored in our education reform. (Guan, 2003).

4.1 The connotation of the Life Classroom model

Life Classroom means that both teachers and students take the time in classroom as an important component of their own life. In the teaching and learning process, they improve the intelligent capacity. Fundamentally speaking, their life value has been embodied and the soul has been enriched and developed. Classroom becomes the place where teachers and students can learn and explore the knowledge, display their wisdom and develop their abilities, exchange emotions and friendships and nurture the humanity, the pleasant place where they can fully demonstrate and promote their values and significance of life. (Xia, 2005). It is a teaching model of dialogue that concerns about the human nature and life, democracy, equality, communication, cooperation, interaction, interaction, creation among teachers or students or between teachers and students. As a new classroom teaching method, it pays more attention to the learning process of the students, opening their visual field, inspiring their creative potentials, cultivating their cultural taste and aesthetic values, and the healthy personality.

4.2 The characteristics of the Life Classroom

4.2.1 Humanities. Life Classroom does not only change the way of learning, but promotes the sound growth of able-bodied personality of every student by changing the way of learning. It gives full respect to the unique sports personality and specific sports life of every student, and provides free space for an individual to get a full growth. Therefore, Life Classroom teaching is filled with rich humanistic spirit.

4.2.2 Openness. The teaching elements that Life Classroom involves, such as teaching objectives, content, methods, process, results and evaluation are an open process.

4.2.3 Cooperation. Life Classroom teaching is a teacher-student or student-student cooperation. It is also the

coordination between teachers and students and teaching materials. In a word, the entire teaching process is a collaborative one.

4.2.4 Practicality. The whole process of Life Classroom teaching is a kind of experience, participation, research and thinking after experiencing and participating. It is the process of practice of first-hand experience for students to make a perceptual study and cognition.

4.2.5 Subjectivity. Life Classroom teaching concerns about the learning emotion and attitudes of students and the development of their personality, respects the individual differences. It pays attention to all the factors of the students in teaching. In detail, the students take part in the entire learning process, develop various strategies of thinking and learning in an active way. They can learn from settling different problems, have the self-regulation of the cognitive activity and gain positive emotional experience from study.

5. Concluding remarks

Skill Classroom, Physique Classroom, and Health Classroom have played important roles in the development of school physical education in China in the specific historical conditions. Especially since the 1990s, Health Classroom has always been the mainstream of the PE classroom model in China. However, with the social progress, economic development and people's personalized demands, students have more requirements for the PE classes. They need physical exercises and experience of emotion and attitude in the PE class as well. Thus, with the ideas of cultural management and humanism being put forward, the concept of Life Classroom has come to surface gradually, and drawn great attention.

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