



The Prototype Analysis of Ren: A Study on College Students' Implicit Theories of Ren

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Abstract

This paper reports a preliminary descriptive approach to the representation of the concept of Ren. According to the prototype theory, researchers collected items (words or phrases) including features and implications of Ren from 172 college students, after which the items were simplified and combined, then 145 prototypes were obtained. After that 78 prototypes with high frequency above 7 were selected and arranged randomly to make a questionnaire, then another 300 college students were made to rate centrality of every prototypes to the meaning of Ren in Likert-typed 5 point scale. A factor analysis was made based on the rate. In terms of the result of factor analysis together with content analysis, the prototypes were classified and coded. The result shows that there are 6 facets of the representation of Ren in college students' mind: (1) righteousness and keeping faith; (2) wisdom and self-cultivation; (3) filial piety, fraternal duty, and treat others well; (4) policy of benevolence; (5) universal love and clemency; (6) political pioneers and righteous men. The result is helpful for moral education of college students from the microscopic aspect and also can be used for reference to develop China's spiritual civilization from macroscopic perspective.

Keywords: Ren, prototype, Factor analysis, Content analysis, Social cognition

1. Introduction

China is a country emphasizing ethical culture. This special culture has produced many unique and abstract sociocultural concepts. These concepts, which have been generated and evolving in long historical culture, have the cultural specificity and uniqueness, Ren (the Chinese word which equals benevolence, but its implication is richer) in Chinese traditional culture is a member of them. Ren, as the core of Confucianism, has a long history and irreplaceable position in Chinese traditional culture. Ren is an idea that impacts Chinese people very deeply.

Ren evolves throughout the development of Chinese history and culture. Ideologists and politicians all have dissertated about Ren in all ages, so it takes different spirits and features of the time. Ren originally referred to the mutual love between people. Confucius, who was the first person to make an integration of ethics, and used Ren as a philosophical category, regarded Ren as the highest moral principle, moral norm and moral realm. He considered Ren referring to the issues of coordinating the interrelation between man and man(Zhang,1988,p.146),and established the ethical thoughts structure centering on Ren, which involved Xiao(filial piety),Ti(brotherly), Zhong(loyalty), Shu(forgivable), Li(courtesy), Zhi(wisdom), Yong(brave), Gong(respectful and reverent), Kuan(lenient), Xin(faithful), Min(nimble) and Hui(favor and kindness). Xiao and Ti among them are the bases of Ren, which are also one base of benevolence thought system. Mencius propelled benevolence thought along Confucius' thoughts, developing the thoughts of benevolent politics. In Tang Dynasty, Han Yu had this expression "Universal love is Ren" in *Yuandao* as well. Zhu Xi and Wang Yangming further highlighted the value and implication of life in illumination of Ren.Tan Sitong advocated to associate benevolence thought with modern industry and commerce, international economics and trade in modern times, he believed that only if we expanded the connotation in this respect, benevolence thought can make country and its people rich to benefit the humanity, and realize the ideal of fraternal to all the living (Qin, 2008, pp.141-145). Contemporary scholars also affirm the modern implications of benevolence thought (Mou, 2001, pp.57-75; Li, 2004, pp.1-2).In a word, the heredity and expansibility make Ren has wide-ranging effects throughout all times and all aspects in China.

So far, many litterateurs and historians have discussed the connotative meaning, structure and effect of Ren, but there are few studies to explore the connotation and structure of Ren by methods of psychology. However, the research of Chinese traditional cultural concept is springing up increasingly in recent years. Chinese scholars (Li & Zuo, 2008, p.28) have researched into the social representation of Yong (the Chinese word which equals brave in English), a concept full of traditional characters, and made a self-reported questionnaire. Meng Yan and Li Zhaoxu(2008,pp.36-41) have also studied the social representation of Junzi's feature . Although the studies in this domain are still in the initial stage, it is undeniable that these studies can help us to penetrate the concepts deeply and understand the core meanings, which enables us to explore the psychological phenomenon with cultural characteristics truly from man. This paper is to explore the representation of Ren in college students in order to have a deeper understanding of this traditional ethical morality of college students. According to these understandings, the educators can improve moral education in favor of China's spiritual civilization construction.

This research is based on prototype theory advanced by Rosch (1975).The theory was put forward to aiming at the shortage of classical view. The classical view states that category membership is an all-or-none phenomenon: any instance that meets the criterion is a member; all others are none members. Because each member must possess the particular set of attributes that is the criterion for category inclusion, all members have a full and equally representative of the category (Fehr, 1988, pp. 557-579). Rosch didn't agree with this view and maintained that many natural language categories aren't defined a set of necessary and sufficient attributes, then put forward the prototype theory as an alternative to the classical view(Zhang, Li &Wang,2006, pp.1-12).Prototype theory states that concept is mainly represented as prototypes(best examples), we understand a concept mainly from the best examples illustrating the concept, e.g. when our thinking is involved in the concept "bird", we always think of pigeon instead of penguin and ostrich. This implies that pigeon and penguin can not represent concept "bird" equally (Wang &Wang, 1992, pp.267-275).From the structure of the concept, prototype theory supposes that natural concept or category has its own internal structure. The centers of every natural category are the prototypes, and the surrounding are other central members. Prototypes are the central concepts or most central members in concept family, they have the most attributes in common of the same category members and the least common attributes of different categories. Typical degree of a concept can be expressed by the resemblance to the prototype (Peng & Zhang, 2004, pp.298-305). Prototype theory assumes that many natural concepts are internally structured into a prototype, so prototype theory has provided insights into concepts central to psychology, including behavioral act (Buss & Craik,1983), personality trait(Cantor & Mischel,1979), intelligence(Neisser,1979), social situation(Cantor, Mischel & Schwartz, 1982), and environmental setting (Tversky & Hemenway,1983) (Fehr & Russell,1991,pp.425-438).

This study is based on the assumption that the concept of Ren is internally structured into prototypes for an exploratory research using this view and method. The purpose is to know the representation of Ren among today's college students and its effects on their behaviors and notions. This might be helpful for moral education of college students from the microscopic aspect and also can be used for reference to develop China's spiritual civilization from macroscopic

perspective.

2. Method

2.1 The initial stage of study

2.1.1 Participants

Participants were 172 college students from Qufu Normal University of Shandong Province in China, who were self-study or had a rest after class in classroom. Participants included 59 males, 107 females and 6 people whose gender was not reported.

2.1.2 Materials

Paper (size specification is 18.2cm *25.7cm).

2.1.3 Procedure

Before the investigation, participants were asked to fill information of demography including gender, age, major, whether they are the only child, the main place of residence before age of 16 (city, town and rural).

At the beginning of the investigation, researchers explained to participants that this was a study on traditional Chinese culture and required them to give their opinions of Ren, then showed participants an exemplification: For the concept of Xin (the Chinese word which equals honesty and credit in English), we can give some typical examples, they are maybe (1) punctual; (2) creditable; (3) sincere; (4) legal compliance, etc. After that researchers asked the participants to write examples or types as many as they can to representatively illustrate the concept of Ren (compassion & fraternity) on a blank piece of paper, they were reminded to express briefly and concisely. Finally researchers emphasized the principle of confidentiality and requested participants to complete the task earnestly, truthfully and independently without misgivings.

2.1.4 Preliminary data processing

At first, researchers input the items and relevant information into Microsoft Excel 2003, then simplified the items of Ren, taking the key words instead of long sentences and phrases, and merging perfect synonyms to reduce the number of items, the principle was that the smaller ones were merged into the larger ones, e.g. "Be ready to help others" and "A helping hand" was incorporated, labeled "A helping hand". Thereafter the items were further merged closed to prototype, e.g. "caring", "concerned", "cherish", "considerate" and "show loving care for" and so on which expressed the feeling of "caring and considerate" were incorporated into a prototype "caring and considerate". A word list of prototypes was obtained after the above processing. 78 prototypes with high frequency above 7 (cumulative frequency reaches 86.70%) were selected and arranged randomly to make a questionnaire as preparation for the second stage of the study.

2.2 The second stage of the study

2.2.1 Participants

The participants were 300 college students from Qufu Normal University who were seated in public places around the university campus, among whom there were 278 participants whose questionnaires were valid, including 95 males, 182 females and 1 people whose gender was not reported.

2.2.2 Materials

The material of second stage of the study was a questionnaire made of 78 prototypes with high frequency above 7; the items (prototypes) were arranged randomly.

2.2.3 Procedure

Before the formal rating of the prototypes, participants were asked to fill information of demography including gender, age, whether they are the only child, the main place of residence before age of 16 (city, town and rural). Then participants were asked to rate centrality of every prototypes to the meaning of Ren in Likert-typed 5 point scale. The notes of filling out questionnaire were the same to the initial stage of study.

2.2.4 Data processing

278 valid assessments on prototypes of Ren were analyzed by principal component factor analysis. 2 postgraduates of psychology classified and coded the 78 prototypes in terms of the result of factor analysis together with content analysis (Dong, 2004, pp.304-311), then merged them into the different dimensions of coding schedule. To integrating with the data in the initial stage of study, researchers obtained an Excel form including coding dimensions, items (before and after processing), prototype codes and demography information of participants. Some demography information was adjusted, additionally, to meet the need for further statistical analysis, e.g. towns were incorporated with city in the variable of main place of residence before age of 16, then this variable was divided into two parts: "city and town" and

“rural area”; the variable of major included liberal arts and science.

Finally, the data in Excel was transformed into SPSS11.5 for chi-square test, testing whether there were significant differences in frequencies of every dimensions and prototypes on four variables (gender, major, whether they are the only child, the main place of residence before age of 16).

3 Results

3.1 The result of content analysis of Ren

Participants have provided 1961 items of Ren in all, after simplifying and combining, 145 prototypes were obtained, of which there were 78 prototypes with the frequency above 7, which cumulative frequency reached 1700, accounted for 86.70%. In terms of factor analysis and content analysis, Ren can be classified into 6 categories (Table 1); the reliability in content analysis (Dong, 2004, pp.304-311) was 0.91.

3.2 Gender differences

There were 1961 items of Ren in total, 609 items from male, 1300 from female and 52 items from the ones who didn't indicate gender (not used for statistical analysis). There was no significant difference between male and female in six coding dimensions. For prototypes, the frequencies of “Personal loyalty”, “Friendly”, “Value the family relationship & friendship”, “Amiable” and “Be forbearing & conciliatory” were significantly different between the two genders.(Table 2).

3.3 The differences between only-child and none-only-child college students

There were 1961 items of Ren in total, 419 from only-child, 1500 from none-only-child and 42 from ones who didn't specify this variable (not used for statistical analysis). The frequencies in categories of “Wisdom & self-cultivation” and “Universal love & clemency” (Table 3) were significantly different. There was no significant difference between only-child and none-only-child in prototypes.

3.4 Major differences

There were 1961 items of Ren in all, 656 from science students, 1293 from liberal arts and 12 lack of this variable (not used for statistical analysis). The frequencies in category of “Policy of benevolence” (Table 4) were significantly different between science students and liberal arts. For prototypes, the frequencies of “Moral”, “Excel in virtue” and “Confucianism” (Table 5) were significantly different.

3.5 The differences between “city and town” and “rural area”

There were 1961 items of Ren in total, 804 from city and town, and 1136 from rural area and 21 from ones who didn't specify this variable (not used for statistical analysis). There were significant differences in frequencies in categories of “Wisdom & self-cultivation” and “Policy of benevolence” (Table 6). For prototypes, the frequencies of “Fraternal love”, “Respecting the old & loving the young” “Protecting animals & environment”, “Remember the gratitude and try to repay it”, “Make a clear distinction between right and wrong”, “Peaceable”, “Dedicating unselfishly”(Table 7) were significantly different.

4. Discussion

4.1 Gender differences

The result showed that male college students listed more items on “Friendly”, “Value the family relationship & friendship”, “Be forbearing & conciliatory” than the female college students, while female college students listed more items on “Amiable” and “Personal loyalty”, and the differences were significant. Besides the results that female college students listed more items on “Personal loyalty” and male college students listed more items on “Friendly”, other results are easy to understand. In Chinese traditional culture, men are generally considered as characters that are tolerated and cherish family's affection and friendship; women should be tender and kind-hearted. Because of this culture, male college students have a better understanding on the connotations of Ren, which “Value the family relationship & friendship” and “Be forbearing & conciliatory” convey; female college students can comprehend implications of Ren that “Amiable” reflects. The unexpected results that male college students listed more items on “Friendly”, female college students listed more items on “Personal loyalty” may be related to the rising of androgyny education in recent years.

4.2 The differences between only-child and none-only-child college students

Results showed that only-child college students listed significantly more items than none-only-child college students on dimension “Wisdom and self-cultivation”, on another dimension “Universal love and clemency”, the none-only-child college students listed significantly more items than the only-child college students. In only-child family, the parents have more energy and resources to educate the next generation, so they attach importance to the cultivation of their child in all aspects including intelligence development, knowledge acquisition and moral cultivation, which makes the

only-children emphasize more connotative meanings of “Wisdom and self-cultivation” in rich implications of Ren. However, the none-only children live with their brothers and sisters in growing experience, so they are tolerated and know well how to get along with others and give love to others, this can interpret why none-only-children understand better on Ren from the aspect of “Universal love and clemency” than only-children.

4.3 Major differences

Study found that there were significant differences in frequency of prototypes on “Moral”, “Excel in virtue” and “Confucianism” between college students’ major in liberal arts and science, specifically college students major in liberal arts listed more items on “Moral”, “Excel in virtue” and “Confucianism”. The result of the dimension “Policy of benevolence” was in substantial agreement. All the results can be explained that students of liberal arts pay attention to the knowledge and news in social humanity and they have the professional advantages for more knowledge collection than science students. This might be explained why they know more about implications in the realms of self-cultivation and political.

4.4 The differences in groups between “city and town” and “rural area”

Results showed that college students from city and town listed significantly more prototypes “Fraternal love”, “Respecting the old and loving the young”, “Remember the gratitude and try to repay it”, “Making a clear distinction between right and wrong”, “Peaceable” and “Dedicating unselfishly” than rural college students, while the rural college students listed more prototypes “Protecting animals and environment”, and the difference was significant. The results reveal that the students from city and town are inclined to comprehend the spirit of Ren in aspect of someone (“Fraternal love”, “Respecting the old and loving the young”, “Remember the gratitude and try to repay it” and “Peaceable”) or something (“Making a clear distinction between right and wrong” and “Dedicating unselfishly”), while the rural college students’ understandings are inclined in aspect of nature “Protecting animals and environment”, which can be concluded that the comprehension of Ren is largely impacted by the living environment. “City and town” college students are more in contact with the person-related or the affair-related, so the understandings of Ren mainly about someone or something, but the rural college students have more chances in touch with the nature, that’s why students living in rural areas can hold the spirits of Ren in natural feelings. On the dimension “Wisdom and self-cultivation” and “Policy of benevolence”, there were significant differences in frequencies between “city and town” college students and “rural area” college students: students from city and town listed more items on “Wisdom and self-cultivation”, which may relate that the students from city and town are mostly only-children; while rural students listed more items on dimension “Policy of benevolence”, we can understand the result in this way: the Chinese government has carried out a series of policy to support the agriculture and paid more attention to peasants’ rights in these years, maybe rural students have deeper feelings in this aspect and more hopes for the implementing “Policy of benevolence”, and so rural students have better understandings on “Policy of benevolence” than the students from city and town.

4.5 Enlightenment

The results of this study reflect the unique implications of Ren generating from integration between traditional culture and modern civilization as a sociocultural concept, and the impacts of Ren on contemporary college students’ notions and behaviors. The research reveals that contemporary college students can understand Ren comprehensively and have a strong acceptance for the concept “Ren”, it also reflects the mutations in college students’ comprehension of concepts in ancient books and records during China’s transition period, which provides psychological basis for the targeted jen-love education to contemporary college students. However, in analyzing the words and phrases, researchers found that college students can not master the boundary between Ren and Yi (the Chinese word which equals just and reasonable in English), which is worthy of considerations in depth. The results also show that the group of only-child lack of meaning of “love caring”, “prevenance” and “lenient” in comprehending Ren, while the group of none-only-child understand less in aspect of “Wisdom and self-cultivation”; students in science have a simple understanding of Ren; “city and town” college students’ comprehension in Ren lacks adequate awareness in caring about nature and the environment. In terms of the results above, researchers believe the essence of traditional culture can promote the development of moral education to college students and help them to form a perfect moral value system, which lays a foundation to carry forward socialist new prevailing custom.

This is a preliminary exploration of the social cultural concept of Ren, which provides a new perspective to further researches of Chinese traditional culture psychology, especially the research of folk psychology. The difference between concepts in ancient books and records and the representations folk concepts is an interesting research topic, which can do a favor for exploring deeper Chinese psychological phenomena. In the future, the aspects in sample representativeness and the variety of research contents are worthy of improvement in order to reveal the structure and connotation of Ren more deeply.

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Table 1. The result of content analysis of Ren

Coding dimension	Category	Items	Frequency
1	Righteousness & keeping faith	Brave(8); Justice(15); Devotion to duty(7); Venerable(8); Upright(11); Keep conscience clear (11); Equitable(9); Loyalty(12); Good faith(44); Responsibility(15); Hero(9); Educators & medical workers(14); Excel in virtue(26); Moral(35); Dedicating unselfishly(33); Yunzi(the Chinese word which equals nobleman or man of noble character in English)(10)	267
2	Wisdom & self-cultivation	Feel good about oneself(8); Wisdom(9); Be strict with oneself(8); Make a clear distinction between right and wrong(12); Erudite(11); Restraining in privacy(8); Active optimism(12); Stand to sense(11); Treat equally without discrimination(12); Cultivated & cultural(14); Peaceable(34); Master the principles to conduct oneself in society(10); Be forbearing & conciliatory(16); Folksy(14)	179
3	Filial piety, fraternal duty, & treat others well	Amiable(17); Kindly(23); Understand others(10); Respecting others(12); Caring & considerate(76); Respecting the old & loving the young(24); Fraternal love(25); A helping hand(24); Sincere(29); Filial piety(32); Friendly(28); Make allowances for (17); Do as you would be done by(10); Remember the gratitude and try to repay it(13); Friendship(8); Help(34)	382
4	Policy of benevolence	Rendao(the Chinese word which equals the way of humanity in English)(7); Be concerned about one's country & one's people(7); Benevolence Means to Love Others(13); The benevolent have no enemy (9); The Benevolent(7); Love people(8); Democracy & equity(7); Peace(13); Harmonious(12); Benevolent government(18); Confucianism(32); Helping the poor & the weak(7)	140
5	Universal love & clemency	Personal loyalty(33); Commiserate(99); Value the family relationship & friendship(18); Being honest, veracious & well-behaved(35); Generous(7); Magnanimous(127); Have a loving heart(36); Kindheartedness(35); Universal fraternity(65); Mercy(44); Renyi(the Chinese word which equals kindheartedness and justice in English)(48); Protecting animals & environment(12); Broad-minded(30); Forgive(16); A good sort(7); Goodness (75)	687
6	Political pioneers & righteous men.	Government official & revolutionary(16); Emperors ,ministers & generals(9); Love the party & the motherland(9); Lay down one's life for a just cause(11)	45
Total			1700

Table 2. χ^2 test in frequencies between male and female in prototypes

Prototype	Male		Female		χ^2
	Observed frequency	Expected frequency	Observed frequency	Expected frequency	
Personal loyalty	5	10.2	27	21.8	3.902*
Friendly	14	8.9	14	19.1	4.222*
Value the family relationship & friendship	10	5.7	8	12.3	4.636*
Amiable	1	5.4	16	11.6	5.298*
Be forbearing & conciliatory	9	5.1	7	10.9	4.366*

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.005$

Table 3. χ^2 test in frequencies between only-child and none-only-child in categories

Category	Only-child		Non-only-child		χ^2
	Observed frequency	Expected frequency	Observed frequency	Expected frequency	
Wisdom & self-cultivation	51	38.9	127	139.1	4.847*
Universal love & clemency	117	146.3	553	523.7	7.502**

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.005$

Table 4. χ^2 test in frequencies between science and liberal arts students in categories

Category	Science		Liberal arts		χ^2
	Observed frequency	Expected frequency	Observed frequency	Expected frequency	
Policy of benevolence	30	46.4	108	91.6	8.780***

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.005$

Table 5. χ^2 test in frequencies between science and liberal arts in prototypes

Prototype	Science		Liberal arts		χ^2
	Observed frequency	Expected frequency	Observed frequency	Expected frequency	
Moral	5	11.4	29	22.6	5.469*
Excel in virtue	4	8.8	22	17.2	3.888*
Confucianism	2	10.1	28	19.9	9.788***

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.005$

Table 6. χ^2 test in frequencies between "city and town" and "rural area" in categories

Category	City and town		Rural area		χ^2
	Observed frequency	Expected frequency	Observed frequency	Expected frequency	
Wisdom & self-cultivation	91	73.4	86	103.6	7.249**
Policy of benevolence	38	58.0	102	82.0	11.798***

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.005$

Table 7. χ^2 test in frequencies between "city and town" and "rural area" in prototypes

Prototype	City and town		Rural area		χ^2
	Observed frequency	Expected frequency	Observed frequency	Expected frequency	
Fraternal love	17	10.4	8	14.6	7.265**
Respecting the old & loving the young	15	9.9	9	14.1	4.385*
Protecting animals & environment	1	5.0	11	7.0	5.421*
Remember the gratitude and try to repay it	10	5.4	3	7.6	6.743**
Make a clear distinction between right and wrong	10	5.0	2	7.0	8.677**
Peaceable	19	13.3	13	18.7	4.240*
Dedicating unselfishly	19	13.3	13	18.7	4.240*

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.005$