Culture, gender and self–close-other(s) connectedness in Canadian and Chinese samples

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Abstract

Founded upon the theories of Independent–Interdependent Self-Construal and I–C, the main goal of this study was to test, via an adapted IOS Scale, whether Anglo-Canadians were more independent than Mainland Chinese in construing their relationship with family members and friends. Strong cultural differences were found in self–family connectedness, but not in self–friends connectedness. Chinese were closer to their family members than Canadians, but Canadians were as close to their friends as Chinese. In both samples, gender difference was found in self–friends connectedness, but not in self–family connectedness. In the Canadian sample, females were closer to their friends than males, while in the Chinese sample, males were closer to their friends than females. In conclusion, this study contributes to the field in three ways. First, the finding that Canadians are as connected as Chinese to their close friends unprecedentedly contests one fundamental assumption of the theories of independent-interdependent self-construal (Markus & Kitayama, 1991) and I–C (Hofstede,1980; Triandis, Bontempo, Villareal, Asia & Lucca, 1988) that individualists (e.g. Anglo-Canadians) are more independent than collectivists (e.g. Chinese) on all dimensions of human relations. Second, the proposition (Cross & Madson, 1997) that Western males and females differ in the same way individualists and collectivists differ in their self-construal is not supported. Finally, the adaptation of the IOS Scale proposes a refreshing direction in cross-cultural research. Graphic representations may be less susceptible to cross-cultural misconstrual than verbal statements since the former involves little or no translation from one language to another. Copyright © 2002 John Wiley & Sons, Ltd.

No man is an *Iland*, intire of it selfe. (John Donne)

Culture shapes the way humans construe themselves as 'the bed of a stream shapes the direction and tempo of the flow of water' (Allport, 1948, p. vii). In some parts of the world such as North America a more independent cultural norm is evident, individuals tend to be more independent in relation to other members of society (e.g. Hofstede, 1980; Miller, 1988; Shweder & Bourne, 1984; Triandis, Bontempo, Betancourt, Bond, Leung, Brenes, Georgas, Hui, Marin, Setiadi, Sinha, Verma, Spangenberg, Touzard & de Montmollin, 1986). Whereas in other parts of the world such as Asia where a more collectivistic cultural norm exists (Bond & Hwang, 1986; Hsu, 1985; Yang, 1986), members exhibit a more interdependent mode of existence (Li & Browne, 2000, Li, 2001). In the

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former type of cultures, the individual tends to see the self as a unique, distinctive whole with clear boundaries (Geertz, 1975), whereas in the latter, the self is embedded in many layers of social relationships, termed *GuanXi* by the Chinese, and fundamental *connectedness* by Kondo (unpublished dissertation, 1982).

Two theories, independent–interdependent self-construal (Markus & Kitayama, 1991) and Individualism–Collectivism (I–C) (Hofstede, 1980; Triandis *et al.*, 1986, 1988) provide a powerful explanatory framework for the way members of cultural groups construct their interpersonal relationships.

Markus and Kitayama's independent–interdependent self-construal theory states that the independent self-construal person constructs the self 'primarily by reference to one's own internal repertoire of thoughts, feelings, and actions' (p. 226). In contrast, the interdependent self-construal person 'sees oneself as part of an encompassing social relationship' (p. 227). The theory of Individualism–Collectivism (I–C) contends that in North American and European cultures, individuals rate high on individualism, whereas in Asian and Latin American cultures, persons rate high on collectivism. The two modes of self-construal in Markus and Kitayama's (1991) theory correspond to the theory of Individualism–Collectivism in that independent self-construal is the primary cognitive pattern in individualistic cultures, as is interdependent self-construal in collectivistic cultures (Gudykunst and Kim, 1997).

Founded upon the theories of independent–interdependent self-construal and I–C, the main goal of this study was to test whether Anglo-Canadians were more independent than Mainland Chinese in construing their relationship with family members and friends, and whether Chinese were more interdependent than Canadians in construing the same relationships (Hypothesis 1). A secondary goal was to examine whether males were more independent than females in construing their relationship with family members and friends, and whether females were more interdependent than males in construing the same relationships in both Canadian and Chinese samples (Hypothesis 2).

The rationale for Hypothesis 2 was Cross and Madson's (1997) assertion that male–female differences in Western societies may synchronize with the differences between persons of individualistic and collectivistic cultures. In other words, males are more individualistic and females are more collectivistic, as respective persons from individualistic and collectivistic cultures. They argue that in Western societies, males are encouraged to be independent and autonomous, whereas, females are expected to be interdependent. These double standards in Western societies may cultivate males to be different from females in their self-construal.

It can be argued that the same male–female differences may be found in Asian cultures. In Asian cultures, all members are encouraged to be collectivistic, but some are supposed to be more so than others. According to the teaching of Confucius (Tu, 1985; Wu, 1984), the female's role is to serve, to follow, and to obey the male. The role of a male is to lead the household and to distinguish himself in society. In spite of Maoist as well as Western influence, much of the Confucian tradition remains in contemporary China (Elvin, 1985; Tu, 1985). Therefore, one would expect Chinese females to be more interdependent in their self-construal in comparison with Chinese males.

MAJOR LITERATURE TESTING INDEPENDENT–INTERDEPENDENT SELF-CONSTRUAL

Numerous scholars have tested the theory of independent–interdependent self-construal and their findings are inconsistent. Although a variety of measurements have been used, they are all made up of a list of statements or questions.

The earliest measurement of self-structures was developed by Kuhn and McPartland (1954) and validated by Bond and Tak-sing (1983). In this test, participants were asked to complete twenty sentences starting with 'I am'. Drawing a sample of 317 college students from the United States and a sample of 306 from India, Dhawan, Roseman, Naidu and Rettek (1995) used this scale to test the hypothesis that Americans had more independent self-construal than Indians. Their hypothesis was supported by the data in four categories: social identity, interests, ambitions, and self-evaluation. A significant gender difference was found in one category, social identity. Males in both cultures tend to have a stronger social identity than females. Later, Bochner (1994) reduced the twenty statements to ten statements. Three groups of subjects were used in the Bochner study: 26 Malaysians, 32 Australians, and 20 British. As predicted, the Malaysian self-concepts were more interdependent than Australians and British.

In 1986, Triandis *et al.* compiled an 11-item instrument. Participants were asked to mark their answers on a 7-point scale from 'strongly disagree' to 'strongly agree' to statements such as 'One should live one's life independently of others as much as possible' and 'One does a better job working alone than working with a group'. Using this instrument, Brockner and Chen (1996) examined differences in self-construal between a sample of 438 students from the People's Republic of China and 179 students from the United States. Surprisingly, they found no significant difference between the Chinese and Americans.

In 1986, Breckler, Greenwald and Wiggins (presentation at the International Research and Exchange Board Conferences on Self and Social Involvement, Princeton, NJ) developed the Private Ego-Task subscale to measure independent self-construal. Cross (1995) used this scale as well as Yamaguchi's (1994) Collectivism Scale among 79 American and 71 Asian students. Participants were instructed to rate on the importance of phrases such as 'being unique–different from others in many respects' and 'maintaining harmony in one's group'. It was found that American and Asian students did not differ significantly in terms of the mean scores of independent self-construal. However, a significant difference was found on the ratings of interdependent self-construal. Asian students were more interdependent than American students.

In 1988, Hui developed a 63-item scale measuring a person's individualistic–collectivistic tendencies in relation to specific targets such as parents and friends. Unexpectedly, Hui (1988) found that Hong Kong Chinese students were significantly more individualistic than American students.

In 1994, Singelis developed a scale consisting of 12 items measuring independent–interdependent self-construal. This scale was tested among 86 Euro-Americans, 113 Chinese Americans, 69 Filipino Americans, 213 Japanese Americans, and 22 Korean Americans (Singelis & Sharkey, 1995). It was found that the Euro–Americans scored significantly higher than the four Asian–American groups on the independent scale and lower on the interdependent scale.

In their 1995 study, Kashima, Yamaguchi, Kim, Choi, Gelfand, and Yuki used several questionnaires, including the Collectivism Scale by Yamaguchi (1994), the Kanjin-shugi scale by Hamaguchi (1985), the Allocentrism Scale by Triandis, McCusker, Betancourt, Iwao, Leung, Salazar, Setiadi, Sinha, Touzard, and Zaleski (1993), and the Friendship Questionnaire by Triandis *et al.* (1988). Kashima *et al.* (1995) found that Japanese and Koreans saw themselves as more interdependent than Australians and Americans, with Hawaiians in between. Gender differences were found in the degree of emotional relatedness to others. In all five samples, men felt more connected with friends than women.

Misra and Giri (1995) examined gender differences in self-construal among 25 male and 25 female Indian university students. They developed a scale of 31 items measuring independent and interdependent self-construal. The independent self-construal scale contained two subcategories, 'self/others differential' and 'self knowledge', and the interdependent self-construal consisted of

'others evaluation' and 'maintaining self/other bonds'. No significant gender difference was found in terms of the mean scores measuring independent and interdependent self-construal.

In 1998, Lay, Fairlie, Jackson, Ricci, Elsenberg, Sato, Teeaar, and Melamud constructed a Family Allocentrism Scale made up of 21 items measuring independent and interdependent self-construal in relation to family. For example, item 1 stated 'I am very familiar to my parents' and item 21 was 'it is important to feel independent of one's family'. Lay *et al.* (1998) compared mean scores of 129 Euro–Canadians and 82 Asian–Canadians on the Family Allocentrism Scale. As predicted, Asian–Canadians scored higher on the allocentrism scale than Euro–Canadians, indicating that Asian–Canadians had a more interdependent self-construal in relation to family members than Euro–Canadians.

As can be seen from the above literature review, the scales used are various and numerous, and findings are not in agreement. The author argues that the contradictory findings may be partially attributable to the nature of the instruments. As equivalent words/sentences in meaning and form are sometimes very difficult or impossible to find in two or more languages (Li, 1999a, b), participants in different language/cultural groups may interpret the questionnaires differently. To improve this situation, the author proposes the use of scales made up of graphic representations. A major advantage of using graphic representations over verbal descriptions is that graphic representations reduce the probability of cross-cultural misconstrual, since little or no translation of statements is required.

The present study adapted the Inclusion of Other in the Self (IOS) Scale (Aron, Aron & Smollan, 1992). The IOS Scale has seven Venn diagrams of two same-size circles, one circle indicating the self and the other circle representing other. In the first picture, the two circles are adjacent to each other. From the second picture to the seventh picture, the degree of overlap progresses linearly (Aron *et al.*, 1992, p. 597). The IOS scale had been used primarily to describe dyadic relationships such as romantic relationship and self–best-friend relationship (Aron & Aron, 1986; Aron, Aron, Tudor & Nelson, 1991; Agnew, Van Lange, Rusbult & Langston, 1998, Lin & Rusbult, 1995). In applying the IOS scale to various samples, researchers have found it robust and reliable (Aron & Aron, 1986; Aron *et al.*, 1991; Agnew *et al.*, 1998; Lin & Rusbult, 1995).

METHOD

Participants

Participants were 170 Canadians from a university in western Canada and 225 Chinese from a university in Wuhan, People's Republic of China. The Canadian sample was made up of 53 males and 117 females. In the Chinese sample, 96 were male, 127 were female and 2 did not reveal their identity. All Canadian participants spoke English as their first language. The Chinese participants spoke Mandarin Chinese as their first language. None of the Chinese participants had visited a foreign country prior to this study. Both the Canadian and Chinese samples were drawn from first- and second-year university classrooms in 1996. Approval to conduct the study was granted by a university ethics review committee in Canada. Consent to carry out this study in the Chinese university was obtained from the dean of the College where this sample was drawn. Upon completion of the questionnaire, each participant signed his or her name to indicate willingness to take part in the study.

Eighty-nine percent of the Canadian participants were between the ages of 18–26 and all Chinese participants were within this age range. There was no statistically significant difference between the mean ages for the two samples.

Adapting the Inclusion of Other in the Self (IOS) Scale

In the present study, two modifications were made based on suggestions of pilot participants. First, the original seven Venn-like diagrams were compressed into five. Then two additional diagrams were added, one representing 'an apart' relationship and the other diagram being the self-drawing of the participants (see the Appendix). Therefore, the adapted IOS scale maintained seven Venn-like diagrams and it addresses a wider range of relationship than the original IOS scale. Participants were instructed to draw their own diagrams if none of the pictures described their situation. A total of four Canadian participants drew their own diagrams responding to question 2, 'describing your relationship with your closest friend', question 3, 'describing your relationship with your family members', and question 4, 'describing your relationship with your close friends'. All four drawings were more overlapping than the most overlapping patterns in the questionnaire. These drawings were scored as 7. None of the Chinese participants drew their own pictures.

Although only a small number of participants drew a more overlapping diagram than presented, a large number of participants marked the 'apart' diagram as their answers (8.4%, 13.9%, 6.9%, and 11.5% for questions 1 to 4 respectively). This indicated the necessity of adding an 'apart' diagram which was not in the original IOS Scale.

The adapted IOS scale consisted of four questions asking participants to select, among six diagrams of same-size circles, a picture which best describes the participant's relationship with his/her closest family member, family members, closest friend, and close friends.

The 'closest family member' was defined as 'father, mother or one particular sibling'. 'Family members' were specified as 'parents and siblings'. In answering the questions, participants were offered clear explanations regarding the symbolic meaning of the circles. For example, for question 1, the following clarifications were given: 'Note that the pictures symbolize a relationship involving two people. One circle represents you and the other represents your closest family member.' For question four, the following elaborations were given: 'Note that each picture symbolizes a relationship involving three or more people. One circle represents you and the other circles represent your close friends.'

For data analyses and presentation, the diagrams were converted to a Likert-like scale with 1 being 'apart' and 7 the most 'overlapping'. An ANOVA was used to analyse the data.

Translation of the Questionnaire

The questions in the questionnaire were composed in English, with the equivalent Chinese translation in mind. Therefore, translation and back-translation posed no difficulty. No translation was needed for the diagrams, since they were expressed graphically. The final version of the questionnaire was derived after several modifications based on the pilot data as well as suggestions from the pilot participants.

RESULTS

Means of frequencies of self–closest family member, self–close family members, self–closest friend, and self–close friends were summed by cultural groups. In each cultural group, means of frequencies for males and females were presented separately (Table 1).

To test for culture (Canadian versus Chinese) main effects, gender main effects (male versus female), and culture by gender interactions, 2 by 2 ANOVAs were conducted on all four dependent

Table 1.   Means for self–close-other(s) connectedness by culture and gender

Culture/gender	*n*	Closest family member		Close family members		Closest friend		Close friends	
		M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Canadian									
Male	50	3.68	1.42	3.28	1.41	3.78	1.25	3.16	1.18
Female	105	3.90	1.38	3.24	1.34	4.35	1.43	3.39	1.27
Chinese									
Male	89	4.54	1.17	4.26	1.10	4.34	1.26	3.85	1.25
Female	120	4.36	1.14	4.07	1.12	4.02	1.28	3.33	1.09

variables: self–closest family member, self–close family members, self–closest friend, and self–close friends. Results are reported in the form of testing Hypotheses 1 and 2.

Culture and Self-construal: Testing Hypothesis 1

Hypothesis 1 stated that significantly more Chinese than Canadians would perceive a more connected relationship between the self and the closest family member, family members, the closest friend, and close friends.
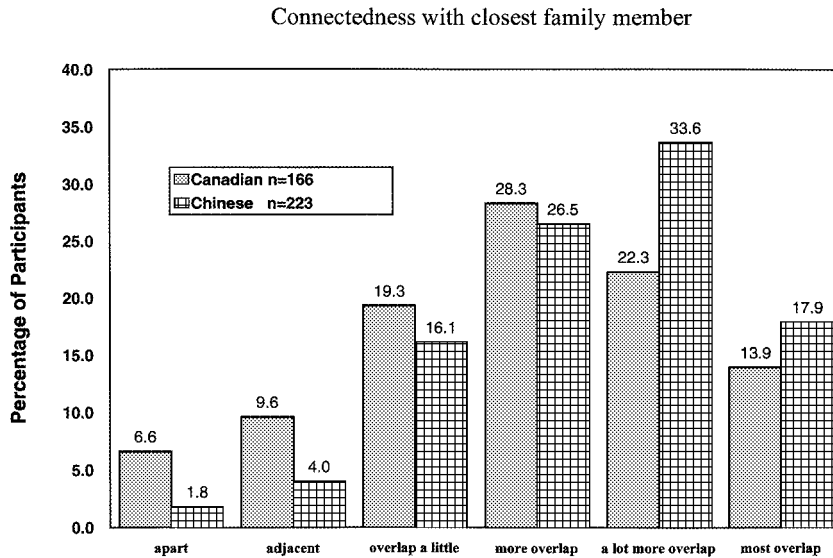
Culture Main Effect

The ANOVA indicated statistically significant cultural differences for three of the four variables.

(1) For self–closest family member connectedness, the mean for the Chinese group was significantly higher than the Canadian group ($F(1, 383) = 16.35$, $p < 0.0001$), indicating that the Chinese had a closer relationship with the closest family member than Canadians. To elaborate on the means in Table 1, Figure 1 presents the percentage of participants in each category by cultural groups.

(2) For self–close family members connectedness, the mean for the Chinese group was also significantly higher than the Canadian group ($F(1, 367) = 46.68$, $p < 0.0001$).

(3) For self–closest friend connectedness, the means were not significantly different between the Chinese and Canadian groups ($p > 0.05$).

(4) For self–close friends connectedness, the mean for the Chinese group was marginally higher than the Canadian group ($F(1, 381) = 4.77$, $p < 0.05$). Thus Hypothesis 1 was partially supported.

Gender and Self-construal: Testing Hypothesis 2

Hypothesis 2 stated that in both Canadian and Chinese samples, significantly more females would perceive a more connected relationship between the self and the closest family member, family members, the closest friend, and close friends.

Connectedness with closest family member

Figure 1.   Connectedness with closest family member

Gender Main Effect

The ANOVA indicated that no gender-main effect existed in all four variables. But a gender by culture interaction was found in two of the four variables.

(1) For self–closest friend connectedness, Canadian females had a higher mean score than Canadian males, whereas Chinese males had a higher mean score than Chinese females ($F(1, 385) = 9.98$, $p < 0.005$).
(2) For self–close friends connectedness, a similar pattern occurred. Canadian females had a higher mean score than Canadian males, whereas Chinese males had a higher mean score than Chinese females ($F(1, 381) = 8.71$, $p < 0.005$).

Thus Hypothesis 2 was also partially supported.

DISCUSSION

The data generated five findings. Each is as intriguing and important as the other, be it a support for or a negation of the hypotheses. Each will be discussed below.

Cultural Similarities in Friends' Connectedness

The most striking finding of this study is cultural similarities in self–close friends connectedness, especially self–closest friend connectedness. Canadians felt as close to their closest friends as Chinese. This finding unprecedentedly contradicts one fundamental assumption of the theories of independent-interdependent self-construal (Markus & Kitayama, 1991) and I–C (Hofstede,1980; Triandis *et al.*,

1986) that individuals in North American cultures are more independent than collectivists on all dimensions of human relations including self–closest friends. This finding is also contrary to major literature in the field of cross-cultural psychology, which support all the assumptions of these two theories. But it makes perfect sense if we consider a known saying by an English poet John Donne (1624/1994): 'No man is an *Iland*, intire of it selfe' (p. 441). It is only human to feel robustly connected with one's best friend or a few close friends, be the person a Canadian or a Chinese! As family bonds dissolve in Western societies, human beings form other strong relationships, such as friendship, for emotional support. In the Chinese culture, people have close ties with both family and friends. In Western cultures, people appear to prefer friends to family. This tendency is well reflected in the theme of a Canadian best seller, *Best Friends* (Wohlmuth & Saline, 1998): 'Friends are the family we choose.'

Cultural Difference in Family Connectedness

While the first finding contests one essential assumption of the theories of independent-interdependent self-construal (Markus & Kitayama, 1991) and I–C (Hofstede,1980; Triandis *et al.*, 1988), the second finding provides strong support for another assumption of the two theories that individuals in North American cultures are more independent in terms of self–family member(s) connectedness. This finding is in line with major literature comparing self–family connectedness between members of individualistic and collectivistic cultures such as comparisons between Americans and Indians (Dhawan *et al.*,1995), Australians, British and Malaysians (Bochner, 1994), Australians, Americans, Hawaiians, Japanese, and Koreans (Kashima *et al.*, 1995), Euro–Americans and Asian–Americans (Singelis & Sharkey, 1995), as well as Euro–Canadians and Asian–Canadians (Lay *et al.*, 1998).

Gender Differences in Self–friends Connectedness

The data indicated that Canadian males form a more independent relationship with the best friend than Canadian females, lending some support for Cross and Madson's (1997) assertion that males in Western cultures are more independent in their self-construal than females. Nevertheless, gender difference was not found in the perceived connectedness between the self and close friends. Apparently, further research is needed to test Cross and Madson's theory.

   Interestingly, in the Chinese sample, males were closer to their friends than females. This finding is consistent with reports by Kashima *et al.* (1995), who found that men felt more connected with friends than women in samples drawn from Australia, America, Hawaii, Japan and Korea. This finding is dissimilar to reports by Misra and Giri (1995) who found no significant gender differences in ratings of independent–interdependent self-construal in their Indian samples.

   Given the varied findings regarding self-construal between males and females in collectivistic cultures, more research is needed to establish a coherent theory. Do males and females in collectivistic cultures construe their selves differently? If so, is there a consistent direction of the differences?

Gender Similarities in Family Connectedness

Although a large difference was found in the connectedness of the self–family members at the cultural level, no gender difference was found in both the Canadian and Chinese samples, supporting the

argument that cultural differences between individualists and collectivists do not correspond to gender differences between males and females in self-construal (Kashima *et al.*, 1995). The theory of independent–interdependent self-construal may well explain cultural differences but not gender differences. Human beings seem to be more influenced by the larger context, i.e. culture, than by their gender in forming relationships with family members (Baumeister, 1987; Baumeister & Sommer, 1997). Both males and females in the Chinese sample felt closer to their family members than males and females in the Canadian sample.

Interdependent Canadians and Independent Chinese

In mapping the relationships of self–the–closest family member and self–close family members (Figure 1), the author observed that there were Canadians as well as Chinese in all six categories, from 'apart' to 'the most overlapping'. Apparently, there are interdependent Canadians as there are independent Chinese. Within-culture variations exist to a similar extent in both cultures (Figure 1). In other words, not all Canadians are independent, and not all Chinese are interdependent. The differences lie in the proportions of Canadians and Chinese in each category.

Finally, the author would like to remind the reader to use caution in generalizing the results of the present study. University students may or may not represent other age groups, and people's self concepts may change over their life span (Berzonsky, 1990; Pipp, Shaver, Jennings, Lamborn & Fischer 1985).

CONCLUSION

In conclusion, this study contributes to the field in three ways. First, the finding that Canadians are as connected as Chinese to their close friends challenges one assumption of the theory of independent–interdependent self-construal (Markus & Katayama, 1991), as well as the theory of Individualism–Collectivism (Hofstede, 1980; Triandis *et al.*, 1985, 1988). Individualists (e.g. Canadians) are not more independent than collectivists (e.g. Chinese) on all dimensions of human relationships as previously assumed. Second, the proposition (Cross & Madson, 1997) that Western males and females differ in the same way individualists and collectivists differ in their self-construal is not supported. The differences between Canadian males and females did not synchronize with differences between Canadians and Chinese in their self-construed connectedness with family members. Apparently, gender differences do not mirror cultural differences as formerly proposed. Further empirical research is needed to shed light on this enigma. Finally, the adaptation of the IOS Scale (Aron *et al.*, 1992) proposes a refreshing direction in cross-cultural research. Graphic representations may be less susceptible to cross-cultural misconstrual than verbal statements since the former involves little or no translation from one language to another.

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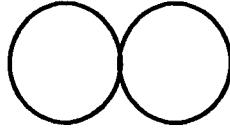Hofstede G. 1980. *Culture's Consequences: International differences in work-related values*. Sage: Beverly Hills, CA.

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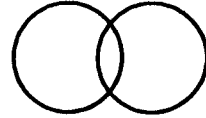
APPENDIX: SAMPLE QUESTION

1. Please indicate the picture which best describes your relationship with your closest family member (i.e. father, mother or one particular sibling). If none of the pictures presented below describes your situation, please draw one yourself. Note that each picture symbolizes a relationship involving two persons. One circle represents you, while the other circle represents your closest family member.
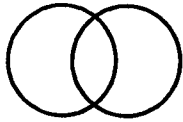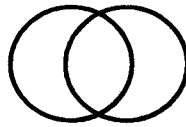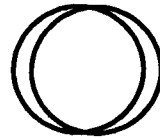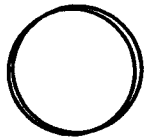
(1)   (2)   (3)

(4)   (5)   (6)

(7)