

## The cognitive structure of role norms in Taiwan\*

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This study explores the implicit cognitive structure of role norms in Taiwan. Subjects were asked to make direct pair-wise similarity judgments of 28 role relationships in terms of the way the actor role should treat the object role (e.g., father to son vs. son to father). INDSCAL and cluster analyses were used to delineate the implicit cognitive structure underlying the similarity judgments. INDSCAL showed that Taiwanese implicitly use two dimensions, closeness-distance and dominance-submission, to construct role norms. The first dimension showed that the norm for nuclear family relationships is to love and care for each other. The second dimension revealed that the norm for status-differential relationships such as father-son or supervisor-subordinate is to behave in accordance with one's status. Cluster analysis indicated four major clusters of role relationships, of which the hierarchical family cluster was the most prominent. Taiwanese adults and college students have similar cognitive structures and use relational models to construct their system of role norms. These relational models include complementarity, communal sharing, authority ranking, and equality matching. The implications of these findings for Confucian ethics and theories of Chinese social behavior are discussed.

Many Chinese scholars have stressed the role of maintaining harmonious and interdependent interpersonal relationships in Chinese culture (e.g., Fei, 1967; Hsu, 1970, 1971; King & Bond, 1985; Liang, 1974; Yang, 1981). Markus and Kitayama (1991) referred to the Chinese sense of self as the interdependent self that incorporates relationships with significant others into the salient elements of self-schemata. Having an interdependent self makes Chinese more likely to act in accordance with the anticipated expectations of others or with role norms, rather than with internal wishes or personal attributes.

Confucianism, one of three major schools of traditional Chinese philosophy, was primarily composed of a set of role norms defining the appropriate responses in the five cardinal relationships. According to the Confucian classic *The Doctrine of the Mean*, "The five relationships (i.e., ruler-minister, father-son, husband-wife, elder brother-younger brother, and friend-friend) and their obligations concern all people under Heaven." Mencius, a key proponent of Confucianism, further commented, "There should be affection between father and son, righteous sense of duty between ruler and minister, division of

\* The author gratefully acknowledges the financial support of the present study from the National Science Committee, Taiwan. I thank Yang Kuo-Shu, Hwang Kwang-Kuo, Michael Bond, Li Mei-Chih, Wu Jui-Tun, and Olwen Bedford for giving helpful comments on the manuscript.

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function between man and wife, stratification between old and young, and good faith between friends." Under the pervasive influence of Confucianism, Chinese have placed heavy emphasis on behaving in accordance with the expectations of significant others in order to maintain harmonious interpersonal relationships (e.g., Bodde, 1962).

The basic principle of Confucian ethics underlying the numerous teachings in Confucian writings asserts that people should not only love their relatives in terms of proximity of kinship, but also revere and obey their parents and superiors. The appropriate way of dealing with others takes these two aspects of relationships, proximity of kinship and status hierarchy, into account (see Hwang, 1995).

Despite the fact that interpersonal norms have played a key role in shaping Chinese behavior, only a few empirical studies have been conducted to explore how Chinese really construe the norms of significant relationships. Most studies focused on a particular kind of relationship, such as filial piety. However, if the role norms of significant relationships are organized as a system of structured knowledge, past studies which focused on a single relationship would not have detected the systematic nature of roles cognition. A few studies have used self-report questionnaires to obtain Chinese views of the extent to which different role behaviors should be performed in important social relationships (e.g., Triandis, 1972; Yang, 1970). However, the direct rating measures adopted by these studies may not have been sufficient to tap the implicit, spontaneous cognition of role norms (Greenwald & Banaji, 1995).

This study explores the implicit cognitive structure of role norms in Taiwan. Past studies using Western subjects have showed that affiliation (love–hate) and control (dominance–submission) are the primary dimensions of construing social interaction and relationships (Haslam & Fiske, 1992; Wiggins, 1979; Wish, 1976). These dimensions are consistent with those advocated by Confucianism. This study examines whether Taiwanese use these two dimensions to construct role norms, and whether or not this cognitive structure is governed by lawful operations, such as complementarity, communal sharing, and authority ranking (Fiske, 1991, 1992; Haslam, 1994).

Complementarity occurs on the basis of reciprocity with respect to the dominance–submission axis (dominance induces submission, and vice versa), and on the basis of correspondence with respect to the hate–love axis (love is reciprocated with love, hate is reciprocated with hate) (Kiesler, 1983). People use the communal sharing model to differentiate in-group kinship from out-group role categories along the dimension of affiliation. Authority ranking is used in status-differentiated dyads along the dimension of control.

The cross-cultural generality of the underlying structure of the implicit norms held by Taiwanese is also examined in this study. Fiske (1991, 1992) postulated that people in all cultures use just four relational models (communal sharing, authority ranking, equality matching, and market pricing) to organize most kinds of social interaction, evaluation, and affect. However, cultures may differ in either the type of rules used to implement the models, or the domain of application. Therefore, even if Taiwanese adopt the same cognitive dimensions and relational models as those held by Westerners, it is still possible that specific aspects of Taiwanese role norms are different.

## **Method**

### ***Similarity judgment task***

About 15% of the original sample were dropped due to an unusual pattern of response. Low variation among responses, or low reliability of responses constituted an unusual pattern.

**Table 1** Stimulus coordinates on the two primary perceived dimensions of role norms for the 28 role relationships (INDSCAL)

Role Stimuli	Adults		College students	
	Dim. 1	Dim. 2	Dim. 1	Dim. 2
father-son	.85	1.35	1.10	.99
son-father	.94	-1.30	.93	-1.63
father-daughter	.96	1.34	1.17	1.02
daughter-father	1.03	-1.15	.85	-1.43
mother-son	1.14	1.35	1.24	1.17
son-mother	1.00	-1.22	.93	-1.47
husband-wife	.91	.45	1.08	.81
wife-husband	.84	.14	1.09	.59
elder brother-younger brother	.50	.58	.36	.83
younger brother-elder brother	.61	-1.00	.34	-1.37
grandfather-grandson	1.03	1.17	.56	.80
grandson-grandfather	.95	-1.31	.53	-1.55
mother-in-law-son-in-law	.68	1.05	.54	1.08
son-in-law-mother-in-law	.68	-1.22	.69	-1.07
teacher-student	.03	1.38	.06	1.07
student-teacher	.02	-1.70	.02	-1.59
male-female	-.11	.12	-.82	.64
female-male	-.13	.11	-.83	.42
supervisor-subordinate	-1.38	1.27	-.16	.88
subordinate-supervisor	-1.44	-1.32	-.30	-1.30
government-people	-1.32	.42	-.75	.34
people-government	-1.35	-.44	-1.05	-1.12
employer-employee	-1.62	1.03	-.35	.86
employee-employer	-1.47	-.96	-.37	-.97
neighbor-neighbor	-.58	-.24	-1.83	.40
friend-friend	-.06	.08	-.99	.35
colleague-colleague	-.93	.01	-1.26	.45
stranger-stranger	-1.82	.00	-2.81	-.22

Only the responses of 60 adults (mean age = 38.1; 35 females and 25 males) and 54 college students (mean age = 20.9; 27 females and 27 males) were included in the INDSCAL analysis.

Subjects were asked to make direct pair-wise similarity judgments of 28 important role relationships in terms of the way the actor role should treat the target role. The 28 role pairs (see Table 1) included not only traditional role relationships such as father-son, husband-wife, elder brother-younger brother, government-people, and friend-friend, but also the role relationships that are important in modern society such as supervisor-subordinate, colleague-colleague, and male-female. These role-pairs were also heterogeneous with respect to proximity of kinship and power distance.

Microcomputers (Intel 486 with VGA color displays) were used to present instructions, display stimuli, and collect responses. Stimuli were presented in two stages. During the pretest stage, all subjects were presented with the same 15 pairs of role-pair words. Subjects viewed the two words in each stimulus pair and then provided a judgment of the similarity between them using a 7-point rating scale. In the test stage of the experiment, subjects were

presented with each of 378 ( $[28/27]/2$ ) stimulus pairs, and similarity ratings were obtained after each pair was presented. The average test-retest reliability of responses for the 15 role-pairs judged twice across subjects was .47 for both college students and adults.

In each stage of the experiment, one element of each stimulus pair was presented on the left side of the computer screen while the other was presented on the right. A 7-point numerical scale labeled 1 through 7 was shown at the bottom of the screen. The 1, 3, 5, and 7 of the scale were anchored with the terms *should be completely different*, *should be somewhat similar*, *should be mostly similar*, and *should be completely the same*, respectively. Random sequencing of the 378 stimulus pairs ensured that each subject received a different stimulus order.

### **Questionnaire**

For the purpose of clarifying the meaning of the dimensions derived from the INDSCAL analysis of similarity judgments, another 66 adults and 59 college students were administered a questionnaire that explicitly assessed the normativeness of 12 interpersonal behaviors in each of 28 roles. The composition of these subjects was comparable to those participating in the similarity judgment task. On each page of the questionnaire, subjects were asked to rate the degree to which one of 12 role behaviors should be performed with respect to each of the 28 role-pairs from the similarity judgment task. The rating scale was anchored with the terms *should not* (0), *should sometimes* (1), *should generally* (2), *should usually* (3), and *should always* (4). The 12 role behaviors included *revere*, *respect*, *obey*, *consult*, *command*, *guide*, *be concerned about*, *take care of*, *help*, *get along with*, *converse with*, and *share*. These role behaviors were chosen based on the content analysis of the results of a previous study, which used an open-ended questionnaire to investigate what duty college students think should be carried out in each of 36 role relationships (Yang & Lin, 1996). Most of the role behaviors freely generated by Chinese students can be located within the circumplex structure of interpersonal behavior (Wiggins, 1979). The categories of indigenous behavior at the abstract level are to some degree universal.

## **Results**

### ***INDSCAL analysis of judged similarities***

The individual difference scaling analysis (INDSCAL) (Carroll & Chang, 1970) procedure of the SPSS-Windows package was used to analyze the similarity judgments. Data obtained from college students and adults were analyzed separately. Stress values and RSQ (the amount of variance explained) associated with solutions based on two through five dimensions were examined. The five-dimensional model fitted the data best for both the adult and student sample (college students: stress = .137, RSQ = .716; adults: stress = .136, RSQ = .74). However, only the first three major dimensions could be clearly interpreted. The relative salience of the first three dimensions was .23, .17, and .10 for college students, and .22, .19, and .11 for adults. It is clear that perception of role norms relies most on the first two dimensions.

The INDSCAL results for the first two dimensions are shown in Table 1. Interpretation of the dimensions was based on subjective inspection of the coordinates for stimuli on the

dimensions, as well as on the PROFIT analysis of the first two salient dimensions. The PROFIT program (Chang & Carroll, 1968) ran a set of regression analyses to regress mean ratings of role-pair stimuli on each role behavior scale over the first two dimensions. Results indicated which role behavior attributes are strongly related to each of the two dimensions (Kruskal & Wish, 1978).

Dimension 1 was of most importance. It was clearly related to the closeness-distance norm of role relationships. Subjective examination of the coordinates of the 28 roles on this dimension showed that this dimension discriminated close family relationships, such as mother-son (.14 for students, .24 for adults), father-daughter (.96, 1.17), and husband-wife (.91, 1.08), from more distant relationships, such as stranger-stranger (-1.81 for students, -2.81 for adults), neighbor-neighbor (-.58, -1.83), and people-government (-1.35, -1.05). The empirical interpretation was consistent with the subjective interpretation. In both samples, role behaviors considered to be more appropriate in close relationships had high regression weights in Dimension 1. The regression weights in the student sample were *concern* (.97), *take care of* (.93), *help* (.96), *get along with* (.99), *converse with* (.99), and *share* (.99) (see Table 2). It is clear that the first dimension clearly differentiated the role relationships in terms of the degree to which the actor role should care for and assist the target role.

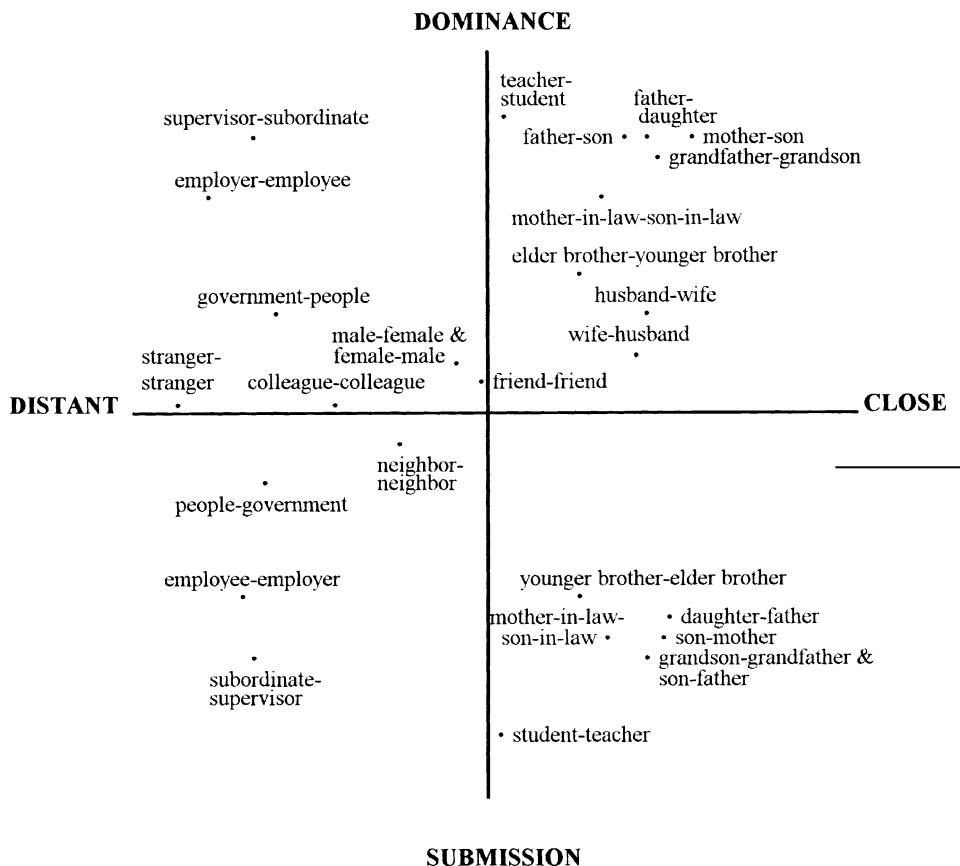
Dimension 2 was clearly related to the dominance-submission aspect of relationship norms. At the positive end of Dimension 2 were the role relationships in which the actor should play the superior role, including father-son (1.35 for students, .99 for adults), supervisor-subordinate (1.27, .88), and teacher-student (1.38, 1.07). At the negative end of this dimension were the role relationships in which the actor should play the inferior role, including son-father (-1.30 for students, -1.63 for adults), subordinate-superior (-1.32, -1.30), and student-teacher (-1.70, -1.59). Relationships stressing equity or equality in social exchange, including friend-friend (.08, .35), colleague-colleague (.01, .45), and stranger-stranger (.00, -.22), tended to be located in the middle of this dimension. The normative expectations for these relationships seem to either reflect or shape social reality.

**Table 2** Multiple regression of role behavior scale ratings on INDSCAL coordinates for the 28 role relationships

Positive poles of rating scales	College students			Adults		
	Dim.1	Dim.2	R <sup>2</sup>	Dim.1	Dim.2	R <sup>2</sup>
Concern	.97	.20	.86	.98	.14	.94
Take care of	.93	.34	.84	.91	.14	.92
Help	.96	.24	.80	.97	.21	.94
Get along with	.99	.06	.87	.99	.08	.92
Converse	.99	.04	.70	.99	.08	.92
Share	.98	.14	.80	.99	.11	.87
Respect	.94	-.32	.59	.90	-.42	.85
Order	.27	.96	.73	.45	.89	.77
Guide	.61	.78	.85	.57	.82	.92
Revere	.26	-.96	.61	.66	-.74	.65
Consult	.49	-.87	.74	.60	-.79	.76
Comply	.59	-.80	.66	.68	-.72	.89

The empirical interpretation helps to clarify the implicit meaning of Dimension 2. In both samples, the role behaviors which are considered to be more appropriate for the elder or superior role had positive regression weights on Dimension 2, whereas the role behaviors which are considered more appropriate for the younger or subordinate role had negative regression weights (see Table 2). For the student sample, the regression weights were *order* (.96), *guide* (.78), *revere* (-.96), *consult* (-.87), and *comply* (-.80). College students and adults located the orders of the 28 relationships along this dimension very similarly ( $r=.93$ ,  $p < .001$ ).

Dimension 3 could be interpreted only by the subjective method. It seems to reflect whether or not the role relationship is bisexual, because bisexual role relationships such as male-female and husband-wife had high positive coordinates on this dimension, whereas monosexual role relationships such as father-son and elder brother-younger brother had high negative coordinates on this dimension. The PROFIT analysis could not reveal anything about this dimension because the study did not use any adjective markers referring to the sexual nature of role relationships.



**Figure 1** The two-dimensional representation of the implicit cognitive space for role norms (college students)

Because subjects construct role norms primarily in terms of the interpersonal circle's dimensions of affiliation and control, it is possible to examine whether the mental representation of role norms follows lawful operations such as complementarity, communal sharing, and authority ranking. The two-dimensional cognitive structure for college students is shown in Figure 1. The norms for most of the status-differential dyadic relationships, including father-son, mother-son, supervisor-subordinate, teacher-student, government-people, were consistent with the principle of complementarity. For instance, with the father-son dyad, the norm for "father to son" was located in the upper right part of the quadrant, implying that a father is expected to be kind but dominant to his son. On the other hand, the norm for "son to father" was located in the lower right quadrant, implying that a son is expected to be kind and submissive to his father. Taken together, the interaction norm for the father-son dyad is consistent with the law of complementarity. Similarly, supervisors are expected to be dominant and not too kind to their subordinates, whereas subordinates are expected to be submissive and not too kind to their supervisors.

The communal sharing model was also adopted to differentiate in-group kinships from out-group relationships along the closeness-distance dimension. Close family members are expected to treat each other benevolently. For the less close "elder brother and younger brother" or "mother-in-law and son-in-law" relationships, people are expected to behave less warmly. For non-kin relationships, such as colleagues, neighbors, and strangers, people are expected to treat each other even less warmly. College students and adults located the 28 relationships along this dimension in a similar order ( $r=.79$ ,  $p<.001$ ). The patterned order of role relationships along this dimension provides strong support for the "kinship selection" rule of altruism (Hamilton, 1964).

Along the dimension of control, the authority-ranking model is widely used in the status-differential dyads such as father-son or employer-employee. In contrast, the cognitive norms for supposedly equal relationships, including husband-wife, male-female, friends, colleagues, neighbors, and strangers, correspond to the expectation of equality. On the closeness-distance dimension the Chinese norm of reciprocity (*pao*) (Yang, 1957) or the equality matching model (Fiske, 1992) are generally followed, even in the nuclear family relationships. For instance, college students believed that the degree (.85) to which a father should care for or help his son is nearly equal to what a son is supposed to return (.94).

### **Cluster analysis of judged similarities**

A hierarchical clustering analysis (Johnson, 1967) using an average linkage rule was performed on the average similarity matrix for each sample. The dendrogram of the clustering solution shows the points at which various role-pairs link together in common clusters. The dendrogram for the student sample is presented in Figure 2. The role relationships were classified into four clusters: (a) primary family relationships (e.g., father-son, mother-son) (shown at Point a of Figure 2), (b) equal acquaintance relationships (e.g., husband-wife, friend-friend), (c) secondary hierarchical relationships (e.g., people-government, supervisor-subordinate), and (d) stranger relationships. Subjects seemed to differentiate these four basic clusters primarily in terms of the closeness-distance attribute of role relationships.

Cluster analysis revealed meaningful relationship prototypes. The family cluster and its hierarchical organization appeared to be the most significant. It was further differentiated into two subclusters on the basis of the dominance-submission attribute. The first subcluster included those family relationships in which the actor role is superior to the target role, such



**Figure 2** Results of hierarchical cluster analysis of 28 role norms for college students

as father-son and grandfather-grandson, whereas the second subcluster included those family relationships in which the actor role is supposed to be deferent to the target role, such as son-father and grandson-grandfather. Within each subcluster, subjects further differentiated the role-pairs according to the proximity of kinship. The nuclear family relationships merged first, and then linked together with the more distant grandfather-grandson or mother-in-law and son-in-law relationship. This hierarchical organization demonstrates the multiply interlocking nature of family role norms (King & Bond, 1985).

For both the student and the adult samples, husband-wife and brother relationships were not closely linked with the family cluster. This may be because the husband-wife relationship is heterosexual and the norm emphasizes equality. The explicit Chinese norm for a brother relationship is mutual love. However, the implicit norm puts more emphasis on equality and competitiveness between brothers. These implicit attributes may lead them to be classified into separate categories. Confucian values classify father-son, husband-wife, and brother-brother relationships under three separate categories of the five cardinal relations.

## Discussion

This study revealed that Taiwanese implicitly primarily construct the norms of role relationships in terms of two dimensions: closeness-distance and dominance-submission. The closeness-distance dimension was found to be more salient than the authority-ranking

dimension. The main findings were replicated across college students and adult samples. It will be worthwhile to examine whether the present findings can be generalized to other Chinese societies such as those in Mainland China or Hong Kong.

This study may be the first to use an implicit method to tap the salient cognition of Chinese role norms. The adjective ratings of role behaviors administered in the questionnaire were only used in the PROFIT analysis to help clarify the meanings of the two perceived dimensions derived from the paired similarities judgments of role norms. Therefore, the choice of adjective markers would in no way affect the results. Specifically, although the adjectival markers seem to have been chosen from the two-dimensional circumplex model of interpersonal behavior, they had nothing to do with determining the kind of perceived structure that was found. However, changing the roles included for judgments might affect the results. Because the 28 role stimuli for similarity judgments were representative of the major Chinese roles, addition of more roles for judgments would not dramatically affect the major findings. However, future studies may use a different set of roles to see if the pattern of findings is altered.

### ***Do contemporary Taiwanese use Confucian ethics?***

This study has profound implications for indigenous Chinese social psychology. Results indicate three ways in which contemporary Taiwanese perceive role norms in a manner that is generally consistent with Confucian ethics.

First, results indicated that Taiwanese perceive role norms in terms of the two main principles underlying Confucian ethics. As mentioned above, according to Confucians the appropriate way of dealing with others should take both proximity of kinship and status hierarchy into account.

Second, the two-dimensional structure revealed that Taiwanese still believe that people should love their families more deeply than those outside the family, children should be filial and deferential to their parents, and younger brothers should be somewhat submissive to their elder brothers. All family relationships are to be maintained through mutual care and intimacy among family members. In addition, normative cognitive structure reflected the tradition emphasizing authority ranking based on generation, age, and sex. Even for the more equal husband–wife relationship, Taiwanese still tend to endorse implicitly the idea that a husband should be a little more dominant than his wife.

Third, the hierarchical structure of cluster analysis revealed the family prototype and its organization. In Confucian theory, the family occupies a central position; it is not only the primary social group, but also the prototype for all types of social organization (Mei, 1967, p. 331). The family prototype contrasts with other non-family clusters primarily in terms of closeness. Within the family prototype, hierarchical organization demonstrates the multiply interlocked nature of family role norms (King & Bond, 1985). This result suggests that Taiwanese may construct the demands of a family relationship by interweaving two or more relational schemata, including the relative status and closeness–distance of relationships. Although the present study found that distance–closeness is more salient than authority ranking, role demands may be dynamic due to the shifting salience of relational dimensions. The shifting demands of fulfilling a family role, particularly the son-to-father role, appeared often in the dialogues between Confucius and his disciples.

It should be noted that these findings do not imply that Confucianism still has a strong impact on the minds of contemporary Taiwanese. This study does not answer questions concerning the causal impact through socialization of Confucianism on Taiwanese. This

study showed only that the pattern of perceived norms of major roles is consistent with Confucian ethics. The norms which contemporary Taiwanese hold for a particular role may fall short of the ideal standard prescribed by Confucianism. However, it could be argued that a pattern of norms has a stronger influence on social interactions than does a single norm for a particular role.

### ***Implications for theories of Chinese social behavior***

The two-dimensional cognitive structure of role norms has implications for theories of Chinese social behavior. Past theories on Chinese social behavior focused on either authority ranking or communal sharing as the key dimension of social interaction. Hsu (1971) argued that the father-son relationship was the dominant dyad in traditional Chinese society, and therefore the authority-ranking attribute of the father-son relationship carries over into all other role relationships and affects almost all cultural products such as literature, law, religion, child-rearing, and morality judgments (e.g., filial piety).

On the other hand, Fei (1967) argued that Chinese basically follow the principle of kin selection in dealing with others. Close family members are more likely to receive particular favor, although what constitutes the boundary of family is dependent upon ego purposes, and can be flexibly adjusted. Similarly, Hwang (1987) proposed that Chinese classify their relationships with others into three categories: expressive ties, mixed ties, and instrumental ties. The need rule, *renqing* (favor) rule, and equity rule, respectively, are used to interact with people of these three categories.

The results of this study suggest that a theory of Chinese social behavior needs to take both authority ranking and communal sharing into account in order to provide a comprehensive framework for explaining the process of Chinese social interaction. Contemporary Chinese in Taiwan perceived role norms primarily in terms of these two intertwined dimensions, just as did traditional Chinese. Past theories stressing only one dimension do not fully reflect the Chinese mind. Recent theories on Chinese social behavior have moved towards a more balanced and integrated viewpoint.

Hwang (1995) recently incorporated the authority principle into his earlier model: "Face and favor: The Chinese power game" (1987). Hwang argued that Confucian ethics for ordinary people have a profound influence on Chinese social action in daily life. His new model proposes the principle of respecting the superior as a guideline for procedural justice, and emphasizes that the person occupying the superior position in a dyadic interaction should make the decisions. Hwang's new model also suggests that the principle of favoring the intimate is the rule of thumb for Chinese distributive justice. Resource allocators adopt different rules of exchange depending on the degree of closeness with the petitioner.

King and Bond (1985) also pointed out that Chinese consider aspects of role norms to achieve idealistic harmony in the social world. Family harmony is maintained not only through the asymmetrical norm of *xiao* (obedience), but also through care and intimacy among family members. They proposed that the Confucian model of humanity not only fixes individuals in the hierarchical order, but also allows them to make aggressive use of the kin-selection principle of *zen* to construct a relation network in non-kin social contexts. This kind of highly personal relation construction constitutes an important cultural strategy for securing social resources for self-advancement in modern Chinese societies such as Hong Kong.

In the "Face and favor: The Chinese power game" model, Hwang (1987) also proposed that Chinese may try to establish a closer relationship with others so that they can receive more favorable treatment according to the *renqing* (favor) rule. The kin selection principle is

not only passively adhered to, but also constructively used to secure resources from outside the family.

### ***Universal and unique aspects of Chinese cognition of role norms***

The main relational models used by Taiwanese are universal. Communal sharing and authority ranking are the basic relational models for social interaction. Complementarity (Kiesler, 1983) and equality matching (Fiske, 1991) can be considered as derived principles based on the two basic models. This study provides support for the cross-cultural generalizability of these interpersonal schemata.

This study has also offered support for the viewpoint that relational schemata are the basic building blocks out of which Chinese role categories are constructed. Social roles might be thought of as distinctively implemented admixtures of models, such that some aspects of role performance in certain contexts are governed by one model, and other aspects by another model (Haslam, 1997). The role requirements of being a father, for instance, might be constructed in either communal sharing or authority-ranking terms in relation to his children, depending on the culture-specific demands of the interpersonal context. Compelling support for the derivativeness of Chinese roles from these basic relational schemata will come from studies demonstrating that these schemata mediate the effects of different roles on social cognition or behavior, and not the reverse (Fiske *et al.*, 1991). If this situation is indeed the case, knowing the relational model governing a Chinese role relationship rather than knowing the role term describing the position in the relationship will allow more reliable inferences about an actor's probable social behavior.

The universality of interpersonal schemata has been underestimated and devalued by Chinese psychologists who preferred to look at the uniqueness of Chinese social behavior. In recent years, more Chinese psychologists have become aware that some core aspects of Chinese social behavior may reflect the same principles shared by other cultures. This awareness has been keenly felt because a bundle of theoretical treatises and empirical findings have pointed out a few plausible universal principles that were once viewed as uniquely characteristic of Chinese (e.g., Adamopoulos, 1988; Burnstein *et al.*, 1994; Daly *et al.*, 1997; Fiske, 1991; Haslam, 1997). For example, Daly *et al.* (1997) proposed some universal principles of human kinship. It was asserted that kin relations are universally understood to be arrayed along a dimension of closeness, and that the dimension of the characteristic closeness of kinship categories is always negatively correlated with the characteristic number of genealogical links defining them, and hence positively correlated with genetic relatedness. This study found that the norms for all family relationships were located at the positive end of the closeness-distance dimension, and provided empirical support for the view that Chinese kinship may have something important in common with kinship in other cultures. It is time for Chinese psychologists to take a closer look at Chinese social behavior from the perspective of evolutionary social psychology (Simpson & Kenrick, 1997).

Although the basic models may be universal, Chinese culture in Taiwan may still differ from other cultures in the following respects. First, Taiwanese may construct unique norms for some particular relationships. For example, this study found that Taiwanese still expect a mother-in-law to be dominant over her son-in-law, and an elder brother over his younger brother. These specific norms may only exist in Chinese societies, or the status differentials for these role relationships may be greater for Chinese than for people of other cultures. Historically speaking, the Chinese norm for a particular dyad such as the husband-wife relationship may have shifted from extreme inequality in traditional society to weak

inequality in modern society, as shown in this study. Second, the relative salience of relational dimensions may vary by culture. In the domain of role expectations, this study found that Taiwanese put more emphasis on the differentiation of closeness than on discriminating relative status.

In addition, the third dimension, which was not discussed much, showed that Taiwanese also notice the sexual aspect of role relationships. The relative salience among major role relationships may also vary by culture. The norm for the son-to-father relationship may be particularly salient in Chinese society. The more salient a dimension or particular role, the stronger its effect on social interaction. This is especially true for Chinese culture in which normative pressures are more likely to direct individuals' social behavior (Hsu, 1970, 1971).

Although this study has laid out the structure of role norms for social interaction, future studies should pay more attention to the relative salience of role relationships because they may play an important role in determining the dynamic direction of Chinese role systems.

## References

- Adamopoulos, J. (1991). The emergence of interpersonal behavior: Diachronic and cross-cultural processes in the evolution of intimacy. In S. Ting-Toomey and F. Korzenny (Eds.), *Cross-cultural Interpersonal Communication* (pp. 155–170). Newbury Park, CA: Sage.
- Bodde, D. (1962). Harmony and conflict in Chinese philosophy. In Arthur Wright (Ed.), *Studies in Chinese Thought*. Chicago, IL: University of Chicago Press.
- Burnstein, E., Crandall, C., & Kitayama, S. (1994). Some neo-Darwinian decision rules for altruism: Weighing cues for inclusive fitness as a function of the biological importance of the decision. *Journal of Personality and Social Psychology*, 67, 773–789.
- Carroll, J. D., & Chang, J. J. (1970). Analysis of individual differences in multidimensional scaling via an N-way generalization of Eckart-Young decomposition. *Psychometrika*, 35, 283–319.
- Chang, J. J. & Carroll, J. D. (1968). How to use PROFIT, a computer program for property fitting by optimizing nonlinear or linear correlation. Unpublished manuscript, Bell Laboratories.
- Daly, M., Salmon, C., & Wilson, M. (1997). Kinship: The conceptual hole in psychological studies of social cognition and close relationships. In J. A. Simpson, & D. T. Kenrick (Eds.), *Evolutionary Social Psychology*. New Jersey: Lawrence Erlbaum Associates.
- Fei, H. T. (1967). *Peasant China* (in Chinese). Taipei: Lu-Chou Publishing Co.
- Fiske, A. P. (1991). *Structures of Social Life: The Four Elementary Forms of Human Relations*. New York: Free Press.
- Fiske, A. P. (1992). The four elementary forms of sociality: Framework for a unified theory of social relations. *Psychological Review*, 99, 689–723.
- Fiske, A. P., Haslam, N., & Fiske, S. T. (1991). Confusing one person with one another: What errors reveal about the elementary forms of social relations. *Journal of Personality and Social Psychology*, 60, 656–674.
- Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review*, 102, 4–27.
- Hamilton, W. D. (1964). The genetical evolution of social behavior: I and II. *Journal of Theoretical Biology*, 7, 1–52.
- Haslam, N. (1994). Mental representation of social relationships: Dimensions, laws, or categories? *Journal of Personality and Social Psychology*, 67, 575–584.
- Haslam, N. (1997). Four grammars for primate social relations. In J. A. Simpson & D. T. Kenrick (Eds.), *Evolutionary Social Psychology*. New Jersey: Lawrence Erlbaum Associates.
- Haslam, N., & Fiske, A. P. (1992). Implicit relationship prototypes: Investigating five theories of the cognitive organization of social relationships. *Journal of Experimental Social Psychology*, 28, 441–474.

- Hsu, F. L. K. (1970). *Americans and Chinese: Purpose and Fulfillment in Great Civilizations*. New York: Natural History Press.
- Hsu, F. L. K. (1971). A hypothesis on kinship and culture. In F. L. K. Hsu (Ed.), *Kinship and Culture*. Chicago, IL: Aldine.
- Hwang, K. K. (1987). Face and Favor: The Chinese power game. *American Journal of Sociology*, 92, 944-974.
- Hwang, K. K. (1995). *Knowledge and Action* (in Chinese). Taipei: Shen-Li Publishing Co.
- Johnson, S. C. (1967). Hierarchical clustering scheme. *Psychometrika*, 32, 241-254.
- Kiesler, D. (1983). The 1982 interpersonal circle: A taxonomy for complementarity in human transactions. *Psychological Review*, 90, 185-214.
- King, A. Y. C. & Bond, M. H. (1985). The Confucian paradigm of a man: A sociological view. In W. S. Tseng & D. Y. H. Wu (Eds.), *Chinese Culture and Mental Health* (pp. 29-45). New York: Academic Press.
- Kruskal, J. B., & Wish, M. (1978). *Multidimensional Scaling*. Beverly Hills, CA: Sage.
- Liang, S. M. (1974). *The Essential Features of Chinese Culture*. Taipei: Cheng-Chung Book Co.
- Markus, H. Z. & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224-253.
- Mei, Y. P. (1967). The status of the individual in Chinese social thought and practice. In A. Moore (Ed.), *The Chinese Mind*. Honolulu: University of Hawaii Press.
- Simpson, J. A. & Kenrick, D. T. (1997). *Evolutionary Social Psychology*. New Jersey: Lawrence Erlbaum Associates.
- Triandis, H. (1972). *The Analysis of Subjective Culture*. New York: John Wiley.
- Wiggins, J. S. (1979). A psychological taxonomy of trait-descriptive terms: The interpersonal domain. *Journal of Personality and Social Psychology*, 37, 395-412.
- Wish, M. (1976). Comparisons among multidimensional structures of interpersonal relations. *Multivariate Behavioral Research*, July, 297-324.
- Yang, K. S. (1970). Authoritarianism and evaluation of appropriateness of role behavior. *Journal of Social Psychology*, 80, 171-181.
- Yang, K. S. (1981). Social orientation and individual modernity among Chinese students in Taiwan. *Journal of Social Psychology*, 113, 159-170.
- Yang, K. S. & Lin, H. I. (1996). Preliminary exploration on the normative behaviors of 36 social relationships in Taiwan. Unpublished research data.
- Yang, L. S. (1957). The concept of *pao* as a basis for social relations in China. In J. K. Fairbank (Ed.), *Chinese Thought and Institutions* (pp. 291-309). Chicago, IL: University of Chicago Press.