Paradoxical Cultural Categories and Paradoxical Social Relationships: The Case of Cooperation and Competition

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Abstract

How individuals think about opposing or paradoxical categories influences their social relationships. We found that Chinese managers were more likely than US managers to categorize attempts to outperform others as an instance of both competition and cooperation. Further, the Chinese managers were more likely than the US managers to perceive a given working relationship as being both cooperative and competitive. The two findings were linked: culturally-guided beliefs about whether the cooperation-competition paradox should be integrated or kept separate influenced how individuals understood their social relationships. More broadly, the implication is that category membership and relations between categories are guided by cultural influences distinct from the particulars of the categories themselves that normally enter into cognitive science research on categories. In addition, those categorization choices are consequential for the network of social relationships individuals form.

Keywords: Categories; paradox; cooperation; competition; culture; relationships; China.

Introduction

"[O]ur two countries gain far more when we cooperate with one another than when we descend into an unhealthy competition."

Hillary Clinton, US Secretary of State, Beijing, September 5, 2012, at a joint press conference with Chinese Foreign Minister Yang Jiechi.

Choices to engage in cooperation and competition are fundamental to a wide range of social life, ranging from diplomacy between nations down to working relationships between individuals. Actors form competitive relationships as they seek to maximize their own outcomes and form cooperative relationships as they seek to achieve group goals. Further, most actors, most of the time, have mixed motives—they are concerned with both their individual outcomes and their group's outcomes. Yet it is not clear whether and why actors might choose to engage in both cooperation and competition.

We will suggest that categories play a key role in the choice to engage in both cooperation and competition. As a result, we raise new issues in the study of culture, categories, and complex social relationships. The specific account that we develop centers on what we term *paradoxical categorization*, or the classification of a single situation as a member of both of two opposing categories. In our case, the paradoxical categorization of interest is the classification of a situation as both an instance of cooperation and an instance of competition. We show that culture influences whether individuals engage in paradoxical categorization. Then we show that paradoxical categorization predicts whether managers have working relationships that are both cooperative and competitive.

Paradoxical Cultural Categories

Multiple streams of work are now challenging longstanding assumptions about the relation between cooperation and competition, and they are converging to make the joint use of cooperation and competition an important question. One such longstanding assumption in research on cooperation and competition, also implicit in the quote from Secretary Clinton, is that cooperation and competition are separate. Cooperation and competition have long been defined as mutually exclusive types of relationship (Deutsch, 1949), mutually exclusive types of behavior (Komorita & Parks, 1996), and mutually exclusive types of motivation (McClintock & Allison, 1989). However, there are now multiple proposals about why cooperation and competition could be integrated (e.g., Brandenberger & Nalebuff, 1996; Van de Vliert, 1999), suggesting that cooperation and competition can co-occur.

Another longstanding assumption in research on cooperation and competition (Fulop, 2004), also implicit in

the quote from Secretary Clinton, is that cooperation and competition are the same for everyone. However, it is now clear that, for example, individuals in the United States and China view cooperation differently (Keller & Loewenstein, 2011), and that individuals in Hungary and Japan view competition differently (Fulop, 2004). There are also strong theoretical arguments suggesting that the relation between cooperation and competition likely differs across cultures (Chen, 2008): Western cultural philosophies (e.g., US, UK, Australia) seem to emphasize the separation of cooperation and competition and East Asian cultural philosophies (e.g., China, Japan, Korea) seem to emphasize the integration of cooperation and competition. Accordingly, culturally-guided beliefs may affect when and why individuals choose to engage in both cooperation and competition.

A third longstanding assumption in research in cooperation and competition (Stanne, Johnson & Johnson, 1999), but that Secretary Clinton's quote rejects, is that there is only one kind of competition. Instead, there appear to be distinct consequences to healthy or appropriate competition, such as the attempt to outperform others, and unhealthy or zero-sum competition, such as the attempt to sabotage others (Stanne et al., 1999). Different kinds of competition may be differently compatible with cooperation. That is, the overall semantic relation between cooperation and competition may be antonymic (Herrmann, Conti, Peters, Robbins, & Chaffin, 1979), as noted in both American (Merriam-Webster, 2006) and Chinese (He, 2009) thesauruses. However, even if the categories as a whole are antonyms, it is an open question as to whether the two categories may still overlap and share members.

We generate a new account of the relation between cooperation and competition consistent with the three new possibilities just discussed. Our starting point is to conceptualize cooperation and competition as cultural categories (Atran, Medin & Ross, 2005; Douglas, 1986; Keller & Loewenstein, 2011). Through social interactions, people learn the conventions in their culture (Millikan 2005) for categorizing interpersonal situations and relationships as cooperative and as competitive. The question then is why an individual might categorize an item as being both cooperative and competitive. Two influences seem key: beliefs about paradoxes and contradictions, and the type of interpersonal situation.

There is ample evidence that individuals who are members of Chinese culture are more likely than members of American culture to hold dialectical beliefs (Spencer-Rodgers et al, 2010), meaning they tend to tolerate contradictions, expect change, and seek to integrate paradoxes. One consequence is that Chinese individuals tend to be more likely than American individuals to engage in paradoxical categorization. For example, they are more likely to categorize themselves as both shy and outgoing (Spencer-Rodgers, Boucher, Mori, Wang & Peng, 2009) and as both happy and sad (Bagozzi, Wong & Yi, 1999).

These general tendencies should apply to cooperation and competition. To be clear, we are not claiming that a general tendency towards dialecticism, derived from one's culture, predicts a willingness to believe that any competitive situation is also a cooperative situation, or even more starkly, that Chinese individuals always engage in both cooperation and competition and American individuals never do. Rather, we are suggesting that dialecticism licenses individuals to grant that cooperation and competition could co-occur. Specifically, a general tendency towards dialecticism, derived from one's culture, should predict an individual's willingness to categorize a seemingly contradictory situation with features of both cooperation and competition as being both cooperative and competitive, rather than being forced to pick one or the other.

The key situations with features of both cooperation and competition are acts of healthy competition, such as attempts to outperform another person. If attempts to outperform others are interpreted as efforts to gain higher relative standing (a key feature of competitive behavior, Johnson & Johnson, 1989), these efforts could be classified as competitive. If attempts to outperform others are *also* seen as efforts to advance group gains (a key feature of cooperative behavior, Tyler & Blader, 2000) then they have the potential to be classified not only as competitive but also as cooperative. By contrast, acts of unhealthy competition, such as attempts to sabotage another person, are unlikely to be seen as incorporating any feature of cooperation (they lower group gains; Stanne et al, 1999), but are likely to be seen as competitive (they are efforts to gain higher relative standing). Thus, paradoxical categorization could occur for attempts to outperform others but is unlikely for attempts to sabotage others.

Taken together with the prior point about culture, the full prediction is that because individuals who are members of East Asian cultures are more likely than individuals from Western cultures to hold dialectical beliefs, they should be more likely to generate the paradoxical categorization that attempts to outperform others are acts of both cooperation and competition.

Paradoxical Social Relationships

Most research on social relationships has described a stark choice between cooperative colleagues giving each other advice versus rivals battling to get ahead (e.g., Burt, 1987). Yet just as researchers examining the same data can radically disagree concerning whether cooperation or competition represents the best explanation of observed patterns (Kilduff & Oh, 2006), individuals also sometimes struggle to comprehend the meaning of their colleagues' actions. We see people inventing terms like "coopetition" and "frenemies" to account for such complex social relationships.

Individuals are embedded in networks of cooperative working relationships as they collaborate with others. But people are also embedded in networks of competitive relationships as they vie for status and resources (Burt, 1992; Lazega & Patterson, 1999). Because social relationships are complex (Ingram & Zou, 2008), an

individual could have relationships that are both cooperative and competitive. When are relationships likely to be recognized as both cooperative and competitive? Two concerns seem to be key: the frequency of interaction and paradoxical categorization.

We focus on managers' working relationships, as a subset of social relationships. In managerial work contexts, frequency of interaction typically implies that individuals engage in reciprocal patterns of sharing knowledge (McAllister, 1995). In addition, managers who work together frequently are also more likely to have their performance compared (Brown et al, 1998) and to contend for resources (Burt, 1992). Thus, working together frequently is likely to provide the opportunity for individuals to experience and to reciprocate acts of cooperation and acts of competition.

The cycles of reciprocated behaviors that individuals experience in their social relationships should guide how they interpret those relationships (Gouldner, 1960; Koster & Sanders, 2006). So, for example, if individuals experience others sharing knowledge, they may interpret those acts as cooperation and reciprocate with cooperative behaviors of their own, leading them to characterize their relationship as cooperative. Accordingly, if managers' working relationships involve frequent contact, then this should provide the potential for developing relationships that are both cooperative and competitive.

Frequent interaction only provides the potential for forming working relationships that are both cooperative and competitive because individuals might tend to reciprocate mainly one as opposed to both kinds of behavior. Consistent with our earlier arguments, we suggest that individuals from different cultural groups and with differing cultural categories should differ in how they resolve the paradoxical tension (Miron-Spektor, Gino, & Argote, 2011; Smith & Lewis, 2011) of encountering opportunities for, or behaviors indicating, both cooperation and competition.

If Chinese individuals are more likely than American individuals to categorize attempts to outperform others as instances of both cooperation and competition, then this may indicate a more general willingness to integrate and reciprocate both cooperation and competition. That is, Chinese individuals may be more likely than American individuals to experience someone attempting to outperform them, perceive it as cooperative and competitive, and reciprocate with acts of cooperation as well as acts of (presumably healthy) competition. In contrast, American individuals may be more likely than Chinese individuals to experience someone attempting to outperform them, perceive it as competitive and not cooperative, and reciprocate with acts of competition and non-cooperation. The end result is a difference in the frequency of experiencing both cooperation and competition within the same working relationship. Thus, paradoxical categorization should predict whether, for those working relationships with frequent interaction that allow for developed chains of reciprocity, individuals are likely to characterize those working relationships as both cooperative and competitive.

In the study that follows, we examined Chinese and American managers for their beliefs about the paradoxical categorization of cooperation and competition. A week later, we gathered their evaluations of their working relationships. We expected that Chinese managers would be more likely than American managers to endorse paradoxical categorization and to characterize their frequent working relationships as both cooperative and competitive.

Methods

Participants

A total of 111 managers in the United States and 139 managers in China participated in the study. The American managers were, on average, 29 years old and the Chinese managers were about 31 years old. The American managers (76%) and the Chinese managers (63%) tended to be male. All participants had earned college degrees and had at least three years of full-time work experience. Within each sample, each major industry, including technology, services, and manufacturing, was represented. Participation in the study was voluntary.

Procedure and Materials

Time 1 Survey Participants listed up to 24 people within their organization with whom they had an ongoing working relationship (as in, for example, Chua, Ingram, & Morris, 2008). Participants then completed a categorization task, as described below. Finally, participants provided demographic information about themselves and information about their organization.

Categorization task The categorization task followed protocols developed within cognitive anthropology (see Weller, 2007 for a review). Using a separate sample from the main study, we asked 40 participants from China and 40 participants from the United States to describe situations that indicated competition. We used existing data on cooperation from Keller and Loewenstein (2011). We created 25 items describing situations that were mentioned by members of both cultures as either cooperative or competitive. All items were in Chinese in China and in English in the US. To ensure language equivalence, we engaged in a coding, translating and back-translating process by coders not informed about the purposes of the study (Brislin, 1970).

The key items concerned outperforming (5 items), sabotaging (4 items) and knowledge sharing (2 items). We included an additional 14 filler items to reduce demand effects. The 25 situations were presented to participants three separate times; once each for whether the situation could be categorized as cooperation, as competition and as commitment (to provide a filler between the cooperation and competition categorization tasks). Half the participants rated situations for cooperation first and competition third,

Table 1: Categorization of situations as cooperation and competition

		Knowledge Sharing	Sabotaging	Outperforming
USA	Cooperation	3.83 (1.40) *	1.53 (0.55) *	3.10 (0.73)
	Competition	2.25 (1.32) *	4.22 (0.70) *	4.16 (0.42) *
China	Cooperation	3.98 (1.18) *	1.61 (0.51) *	3.62 (0.55) *
	Competition	2.01 (1.01) *	4.12 (0.64) *	4.26 (0.46) *

Standard deviations are in parentheses.

* $p < .01$ from one-way t-tests (min df = 110, min t = 13) for differences from 3, with above 3 indicating cooperation or competition, and below 3 indicating non-cooperation or non-competition.

and half rated situations in the reverse order. We found no effects of order of presentation.

Time 2 Survey One week later, participants evaluated each working relationship they had listed on the Time 1 survey. They rated the level of competition, cooperation, and the frequency with which they worked together, as well as other information beyond the scope of the current paper. The order of presentation of the questions about cooperation and competition was counterbalanced, and we found no effects of the order of presentation.

Measures

Categorization Participants rated knowledge sharing, sabotaging, and outperforming situations twice on scales from 1 = non-cooperative/ non-competitive and 5 = cooperative/ competitive.

Paradoxical categorization We used participants' ratings of how cooperative outperforming situations were as a measure of paradoxical categorization. We found similar patterns if we use measures based on their ratings of both cooperation and competition.

Frequent interaction Working relationships with "at least daily" interaction were coded as a working relationship with frequent interaction.

Paradoxical working relationships Participants rated each working relationship on a 5-point scale for cooperation (1 = very non-cooperative, 2 = slightly non-cooperative, 3 = neither cooperative nor non-cooperative, 4 = slightly cooperative, and 5 = very cooperative) and a similar scale for competition. A working relationship that was rated a 4 or 5 on both the "cooperative" and "competitive" scales was coded as a working relationship that had both cooperation and competition.

Number of working relationships Participants could have reported up to 24 working relationships and we included the number they listed as a control variable.

Demographic Variables Age and gender were included as control variables because they commonly influence interactions within organizations.

Results

Categorization data

Table 1 shows the means and standard deviations for the categorization of each situation type (knowledge sharing, sabotaging and outperforming) for respondents from the US and China. As expected, Chinese managers and American managers categorized knowledge sharing as cooperative and non-competitive and sabotaging situations as competitive and non-cooperative. Both Chinese and American managers categorized outperforming situations as competitive. Finally and most critically, Chinese managers categorized outperforming situations as cooperative (M = 3.62, SD = 0.55) whereas American managers did not (M = 3.10, SD = .73), $t(249) = 6.35$, $p < .01$. Thus, Chinese managers showed greater willingness than American managers to engage in paradoxical categorization.

Working relationship data

Table 2 reports hierarchical non-linear logistic regression models predicting paradoxical working relationships. We found no effects of gender, age, and number of ties (second level control variables) or cultural group (a second-level variable). As expected, frequent interaction predicted paradoxical working relationships (a first-level variable; B = .77, SE = .15). Also as expected, there was an interaction between cultural group and frequent interaction (B = .73, SE = .30), as Chinese managers (M = .20) reported that more of their frequent interaction relationships were paradoxical working relationships than did American managers (M = .14), $t(2342) = 3.38$, $p < .01$.

Paradoxical categorization helped to explain the effect of cultural group. Paradoxical categorization predicted paradoxical working relationships (a second-level variable; B = .05, SE = .01). When including paradoxical categorization with cultural group, frequent interaction and the interaction of cultural group and frequent interaction, the effect of the interaction was still significant yet reduced (B = .51, SE = .30). A bootstrapped test of an indirect effect of the interaction of cultural group and frequent interaction on

Table 2: Predictors of Paradoxical Working Relationships

	Controls		Cultural Group		Frequent Contact		Interaction		Paradoxical categorization		Full Model	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Intercept	**-2.18**	0.61	**-2.03**	0.60	**-2.21**	0.06	**-2.25**	0.65	-0.04	0.09	-0.33	0.18
Gender (F)	0.16	0.17	0.15	0.17	0.02	0.02	0.15	0.18	0.02	0.02	0.16	0.19
Age	0.02	0.02	0.01	0.02	0.01	0.02	0.01	0.02	0.00	0.00	0.01	0.02
Number of Ties	0.00	0.01	-0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01
Cultural Group			0.16	0.16			-0.37	0.26			-0.52	0.31
Frequent Interaction					**0.77**	0.02	0.24	0.18			0.28	0.19
Cultural Group *Frequent Interaction							**0.73**	0.30			**0.51**	0.30
Paradoxical Categorization									**0.05**	0.01	**0.32**	0.16

Note: bold if p<.05.

paradoxical working relationships through paradoxical categorization found support, estimating an effect of 0.04 (95% CI: 0.01-0.07). Therefore, the influence of Chinese culture on paradoxical categorization is linked to the particular likelihood of Chinese managers' having paradoxical working relationships among their frequent interaction partners.

Discussion

Chinese managers, relative to American managers, were more likely to categorize outperforming situations as both cooperative and competitive, and in turn were more likely to describe working relationships with frequent interaction as both cooperative and competitive. Simultaneously cooperative and competitive working relationships were not randomly distributed rare occurrences. For those who categorized outperforming situations as both cooperative and competitive (a set of mostly Chinese and some American managers), the median manager worked every day with two people with whom they both cooperated and competed. Yet for those who did not categorize outperforming situations as both cooperative and competitive (a set of mostly American and some Chinese managers), the median manager did not work with anyone with whom they both cooperated and competed. Thus, cultural support for paradoxical categorization, combined with enabling social situations, shape the social experience of cooperation and competition and, more broadly, opportunities for paradoxical working relationships.

Part of the account is about the influence of culture on categorization. Our account, drawing on prior literature, was that cultural philosophies can provide a basis for dialecticism. Dialectical beliefs then enable paradoxical categorization. In related research, we have documented the mediating role of dialectical beliefs in the link between cultural group membership and paradoxical categorization. The robustness of the link between culture and paradoxical categorization is suggestive of the importance of studying culture to studying categories. The nature of the relation people perceive between categories, and category membership itself, is not just a function of the features or properties of the categories, their members, or the categories to which they are associated (e.g., Goldstone, 1996). Whether attempts to outperform others are instances of cooperation is ambiguous and appears to be resolved by principled social convention.

The more general implication is that attempts at studying category membership and relations among categories without considering cultural influences has the potential to be misleading. Part of individuals' understandings of categories—which tends not to be the focus of cognitive science research—is shaped by cultural use of the specific category and the culturally normative views about categories more generally. Studying artificial categories is wonderfully useful, as is studying concrete object categories that are fairly consistent across cultural communities. Cooperation and competition are not typical of the categories cognitive science researchers tend to study (they are relational categories; Gentner & Kurtz, 2005). Yet cooperation and competition are arguably among the most frequently used categories in social life, and relational categories more generally account for much of our expert knowledge. The culturally-guided aspects of these categories' meanings are, therefore, highly consequential and so worthy topics of study.

Cultural factors shape categories because category use is so often social. In the current case, beliefs about categories are linked to perceptions of relationships. In other work, we also show that these beliefs about cooperation and competition predict behavior in a workgroup context. These perceptions and behaviors are consequential. People's choices are guided by how they perceive others, and those

perceptions can be self-reinforcing because of reciprocity. For example, a direct implication of the findings in this paper are that general cultural beliefs about paradoxes could, by shaping categories and relations between categories, shape the networks of social relationships that comprise our lives.

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