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The Herdsman and the *Sheep*, *Mouton*, or *Kivsa*? The Influence of Group Culture on Cooperation in Social Dilemmas

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The Influence of Group Culture on Cooperation in Social Dilemmas

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Abstract

This chapter suggests that it is important to incorporate the concept of culture into both the theoretical frameworks and the empirical research on cooperation in social dilemmas. It proposes a broader interpretation of the appropriateness framework (March, 1994) in decision making in social dilemmas (Messick, 1999; Weber, Kopelman, and Messick, 2004) that includes group culture. It does not diminish the contribution of the appropriateness framework that teases apart the *identity* from *recognition* of the situation and the relevant *rules*, but rather offers a model that also encompasses *group culture* as a distinct fourth construct. Thus, when faced with the choice to cooperate or defect, rather than being guided strictly by rational choice or expected utility models, a decision-maker may be best guided by the question: "what does a *person* like me *do* in a *situation* like this given this *group* culture?"

Keywords: Social Dilemmas, Tragedy of the Commons, Culture, Decision-Making, Cooperation

Does culture influence decision making in a global economy? Without doubt, culture influences the cuisine we prefer and whether we are likely to order and enjoy a rack of lamb smothered in a Southwestern U.S.-style barbeque sauce and a cold beer, lamb stew à la Provençale with a glass of red wine, or lamb marinated in fresh herbs and served over rice along with hot mint tea. Even in an era of fusion restaurants and widespread globalization, culture may influence how decision-makers manage both local and global resources in situations that risk the *tragedy of the commons*—the classic example being the decision of a herdsman grazing sheep[1] on a common pasture whether to cooperate or defect (G. Hardin, 1968). That is, the cultural context provides insights into the problem of cooperation. We may learn how to effectively manage resources in such social dilemma settings (for a review see, Dawes, 1980; Messick & Brewer, 1983; Kopelman, Weber, & Messick, 2002), by studying solutions that arise in distinct cultural settings (e.g., McCay, 2002; Ahn, Janssen, & Ostrom, 2004). Furthermore, even if a global management culture may be emerging, this by no means indicates homogeneity of group-level culture. Unique sub-cultures continue to emerge on an organizational and institutional level in which the effect of group-level factors such as cultural values and norms is critical to understanding decisions and the behavior of decision makers (e.g., Gelfand & Brett, 2004; Markus & Kitayama, 1991). Therefore it is important to incorporate the concept of culture into both the theoretical frameworks and the empirical research on cooperation in social dilemmas.

In general, social dilemmas can be defined as situations "… in which individual rationality leads to collective irrationality. That is, individually reasonable behavior leads to a situation in which everyone is worse off than they might have been otherwise," (Kollock, 1998,

[1] Sheep in French is *mouton* and in Hebrew *kivsa* (French and Hebrew translations of English were arbitrarily referred to in the title to represent unique cultures in different parts of the world).

p. 183). For example, common dilemmas emerge when decision makers all have access to a common resource, but no one has the right to exclude others and thus they are likely to collectively take for themselves more than would be sustainable. These are situations in which collective non-cooperation leads to a serious threat of depletion of future resources (C. D. Hardin & Higgins, 1996; Van Lange, Liebrand, Messick, & Wilke, 1992). Likewise, in public goods dilemmas, given that people have free access to a collective good, reduces the incentive to contribute voluntarily to the provision of that good. If there are many free riders in a population relative to the number of contributors, public goods disappear, because contributors, noting they are being taken advantage of, withdraw their support (Ostrom, 2000). Social psychologists, anthropologists, economists, sociologists, and political scientists alike have demonstrated great interest in understanding when people make cooperative choices rather than selfish choices, why people make the choices they do, what the factors are that influence cooperation in a social dilemma, and the interventions that are effective in eliciting more socially advantageous behavior (e.g., Agrawal, 2002; Dawes, 1980; Kollock, 1998; Komorita & Parks, 1996; Ledyard, 1995; Messick & Brewer, 1983; Van Lange, Liebrand, Messick, & Wilke, 1992a; Kopelman et al., 2002).

There are two prevailing theoretical frameworks to decision making in social dilemmas: the expected utility (EU) model and the rational choice model (Ledyard, 1995; Luce & Raiffa, 1957; Pruitt & Kimmel, 1977). These models presume vigilant, calculating decision makers who assess choice environments with care, determine the probable utility (i.e., payoff) associated with each possible choice, and then choose to maximize their EU. The appropriateness framework, an alternative theoretical approach to decision making in social dilemmas, suggests that people making decisions ask themselves (explicitly or implicitly): “What does a person like me do in a

situation like this?" (March, 1994; Messick, 1999; Weber, Kopelman, & Messick, 2004). This question identifies three significant factors: (1) the identity of the individual making the decision; (2) the recognition and definition of the kind of situation encountered; and (3) the application of rules or heuristics in guiding behavioral choice. In contrast with the EU and the rational choice models, the appropriateness framework accommodates the inherently social nature of social dilemmas and the role of rule- and heuristic-based processing.

This chapter suggests a broader interpretation of the appropriateness framework in decision making that includes group culture and therefore offers a better understanding of cooperation in social dilemmas. While the general constructs of the appropriateness framework—identity, rules, and recognition—could be universally applied, a narrow interpretation, for example, of identity as a self-focused atomistic entity, is characteristic of some, but not all, cultures. Thus, the question "What does a person like me" may overemphasize the self over the group. Where does the group fit in? Is an individual perceived to be a separate entity from the group? Is the group simply part of the entire situation? Are situations independent of the individuals involved? Are rules context-free? Thus, rules and recognition of the situation—"…*do* in a *situation* like this?" —also might have substantially different implications, depending on a group's culture. If most people in some cultures are likely to answer the three factors (identity, recognition, and rules) differently than most people in other cultures, then adding a cultural lens to the appropriateness framework will provide a better understanding of cooperation in social dilemmas. The three appropriateness factors—the identity of the individual making the decision, recognition and definition of the kind of situation encountered, and the application of rules or heuristics in guiding behavioral choice—are interrelated in all cultures. And yet, defining them as distinct constructs proves theoretically illuminating. Currently, the

effect of culture—a group-level variable—is implied and embedded in identity, recognition of the situation, and applied rules. A model is not proposed here that diminishes the contribution of teasing apart the three factors, but rather a model that also encompasses group culture as a distinct fourth construct.

Culture and Appropriateness Framework

Embedding a group-cultural level identity in the appropriateness framework of decision making in social dilemmas provides a more encompassing theoretical model of factors that influence individual cooperation. Culture, in the decision-making literature, is defined as a mental model shared by at least two people (Deutsch, 1973), which influences what people believe is important (values) and what they consider to be appropriate behavior (norms) (Hofstede, 1980; Schwartz, 1994). It is not surprising that the appropriateness framework has ignored group culture given that the empirical literature on social dilemmas has developed in what has been described as a cultural "vacuum" (Brett & Kopelman, 2004).

An expansive experimental literature in social psychology and experimental economics has treated an array of psychological factors that influence individual cooperation (e.g., Kopelman, Weber, & Messick, 2002). These factors include the study of individual and situational independent variables in give-some (public good dilemmas) and take-some games (common dilemmas), two-person and multi-person prisoner's dilemmas in the laboratory, as well as field experiments. Despite this plethora of research, the effect of group culture per se on choice in social dilemmas has not been widely studied; and, indeed, the paucity of studies that focus on group culture as a predictive variable is noteworthy, especially as the impact of culture has received increasing attention in the social and cognitive psychology literature (e.g., Markus

& Kitayama, 1991).

The role of cultural values and norms in the decision of whether to cooperate or defect in social dilemma situations has been explored by only a few studies, but mostly has been treated as a control variable or an empirical artifact of data collection in different countries, rather than as a theoretical construct (Brett & Kopelman, 2004). Culture can be treated not only as a psychological construct, but also on an institutional level, including a society's characteristic laws and social structures, such as schools and government agencies, which monitor and sanction cooperation. According to research in social psychology and experimental economics, group culture plays a central role in how people think, feel, and behave in resource allocation settings (Gelfand & Dyer, 2000; Lytle, Brett, Barsness, Tinsley, & Janssens, 1995). In this literature, culture is usually treated as a group-level psychological construct that influences decision making. Thus, group culture influences the emergence of identity, how people perceive situations, and what behavioral rules they apply.

Culture and Identity

Identity is a complex, multifaceted factor in the appropriateness framework. Often social scientists associate identity only with personality factors, and clearly, people do differ along personality dimensions such as self-monitoring (Snyder & Gangestad, 1986), or locus of control (Lefcourt, 1982). However, they also differ in other ways, such as their social value orientations (Messick & McClintock, 1968), the nature of their personal histories (Bettenhausen & Murnighan, 1985, , 1991; Forgas, 1982), and personal experiences. Identity also encompasses social identity (Brewer, 1991; Taylor & Modhaddam, 1994; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) and cultural influences (Moghaddam, Taylor, & Wright, 1993). Identity is,

therefore, an umbrella concept that includes all the idiosyncratic factors that individuals bring with them into a social situation. The term identity, then, includes the consideration of socially defined roles and the various idiosyncratic traits (Weber, Kopelman, & Messick, 2004) and confounds these with cultural identity (i.e., shared group-level identity).

One of the most commonly studied effects of group culture in social psychology is the influence it has on the concept of the self. It is reflected by the cultural value of individualism versus collectivism (Hofstede, 1980; Schwartz, 1994). Decision makers from individualist cultures (e.g., United States) think of themselves independently of the social groups to which they belong and make decisions with little concern for social imperatives to consider the interests of others (Markus & Kitayama, 1991). Thus, what is valued in individualistic societies is self-interest. In a social dilemma setting, this leads to main effect predictions that individualistic decision makers will be less likely to cooperate, but will enact individual profit-maximizing behavior. In contrast, collectivist cultures (e.g., Vietnam, Japan, and China) value group interests. People self-construe in terms of social group membership and are more likely to think in terms of "we" than in terms of "I." These individuals make distinctions between in-groups of which they are members and with whom they cooperate and out-groups of which they are not members and with which they compete (Triandis, 1989). In fact, comparative cross-cultural research documents that decision makers from collective cultures are more cooperative than individualists in social dilemmas. For example, in contrast to decision makers from the United States (an individualistic culture), decision makers from collectivist cultures such as Vietnam (Parks & Vu, 1994), Japan (Wade-Benzoni et al., 2002), and China (Brett, 2001; Hemesath & Pomponio, 1998) are more cooperative. The social imperatives in a collective society motivate decision makers to place group interests before individual interests, and therefore they are more

likely to cooperate in social dilemmas.

Another widely studied identity factor is the effect of social motives. Social motives, or people's goals for resource allocation in socially interdependent situations (also called social value orientations), influence cooperative choice in social dilemmas (Kramer, McClintock, & Messick, 1986; Parks, 1994; Roch & Samuelson, 1997). Pro-social decision makers (whose social motive is to maximize joint gains) make more cooperative choices in social dilemmas than pro-self decision makers (motivated to maximize own and or own relative to other's gain). Some research suggests that social motives are at least in part a function of the social environment in which decision makers grow up (Van Lange, De Bruin, Otten, & Joireman, 1997), and therefore they may be influenced by group culture. A common theoretical assumption is that decision makers from collectivist cultures will be more likely to be pro-social, whereas those from individualistic cultures are pro-self. For example, a study of managers in an executive MBA program reports proportionately more pro-self decision makers from individualist cultures like the U.S. and Israel and more pro-social decision makers from Germany (where economic and political ideology reflects collective values) and Hong Kong (where social values are collective) (Kopelman, 1999). Although social motives are related to cultural values, they are not synonymous (Gaerling, 1999; Probst, Carnevale, & Triandis, 1999), possibly because cultural values are broader constructs than social motives. Social motives are an individual-level variable, whereas culture is a group-level variable and thus, although they interact, they are distinct constructs.

Culture and Recognition of the Situation

To act, people must answer the question: "What kind of situation is this?" (Messick,

1999, p. 13). Answering this question defines and classifies the situation and hinges on recognition, on matching features of the situation to features of other situations that are already (at least partly) understood. Recognition, therefore, is an act of categorization according to event prototypes— "coherent and interrelated sets of characteristics concerning the sort of person who typically features in the event, the typical explanation for the event and so on," (Lalljee, Lamb, & Abelson, 1992, p. 153). The definition of the situation suggests a choice set and is part of the appropriateness framework. The choice set includes questions such as: Is this a cooperative situation or a competitive situation? Is this a group task or an individual task? Is this a game or a problem to be solved? Is this a one-shot dilemma or an iterated dilemma? Is this a dilemma that demands an anonymous or a public choice? The definition of the situation should answer at least some of these questions. The definition of the situation informs the person about the norms, expectations, rules, learned behaviors, skills, and possible strategies that are relevant. It should be, therefore, the proximal mediator of behavioral choice (Weber, Kopelman, & Messick, 2004). Some situational categorizations will yield a constrained list of possible behaviors, while others may be more ambiguous and consequently elicit a broad array of possible behaviors (e.g., Forgas, 1982). The recognition question encompasses yet additional factors—the understanding of a situation within its social and cultural context.

Group culture provides insight into the different solutions that groups evolve to manage socially interdependent situations. Culture is a socially shared knowledge structure, or schema, giving meaning to incoming stimuli and channeling outgoing reactions (Triandis, 1972). In this respect, cultural values (what is important) and norms (what is appropriate) provide the members of a cultural group with schemas, or templates, for interpreting a situation (Fiske & Taylor, 1991). Situational factors that influence social dilemmas include features of the task structure

itself (the decision structure and the social structure) and the perception of the task (Kopelman, Weber, & Messick, 2002). The decision structure includes factors like the payoff structure and the amount and type of uncertainty involved in the resource. The social structure includes factors such as the power and status of the individuals or organizations, the size of the group, and the ability of people to communicate with one another. Perceptual factors include perceived causes of shortages, or the way cooperation is framed.

One cultural value likely to influence recognition of the social structure of the social dilemma is whether individuals have a tendency to assume hierarchy among group members. The cultural value of hierarchy versus egalitarianism reflects the extent to which individuals focus on social status and power (Hofstede, 1980; Schwartz, 1994). Hierarchy refers to the importance placed on ascribed hierarchical roles in structuring interactions and allocating resources. In egalitarian cultures, status differences are deemphasized, and power distances are less salient in social interactions and economic exchange. In hierarchical cultures, social status implies social power, so lower-status individuals are expected to defer to higher-status individuals (Leung, 1997). Hierarchy versus egalitarianism may lead to cultural differences in how people react to and view appointing a leader to aid in achieving goals in social dilemmas. There is a large literature identifying the conditions under which group members (in the U.S., which is an egalitarian culture) are willing to appoint leaders. This research suggests that groups will opt for a leader when they have failed to manage a resource efficiently, and inequalities in harvesting outcomes emerge, and followers will endorse leaders who use fair procedures while maintaining the common resource (Wilke, de Boer, & Liebrand, 1986; Wit & Wilke, 1988; Wit, Wilke, & Van Dijk, 1989). Because there is greater deference to authority in hierarchical than egalitarian cultures (Brett, 2001), decision makers from hierarchical cultures may be more

willing to turn control of the resource over to a leader, even before trying self-control, than decision makers from egalitarian cultures. Decision makers from hierarchical cultures also may have more confidence that their leaders will protect the interests of the group as a whole than decision makers from egalitarian cultures where interest groups lobby successfully for special treatment from government authorities.

Culture may also influence how individuals recognize and react to inter- versus intra-group situations. An inter-group paradigm of social dilemmas is set up such that the goal of doing the best for yourself is achieved by cooperating with in-groups and competing with out-groups (Bornstein, 1992; Bornstein & Ben-Yossef, 1994). The task structure differs from the regular intra-group paradigm because it has an inter-group competitive element that increases cooperation with the in-group. Decision makers in all cultures studied to date were responsive to this task structure, competing with in- group members in the single group context and twice as likely to cooperate with them in the inter-group context (Bornstein, 1992; Bornstein & Ben-Yossef, 1994; Bornstein, Erev, & Goren, 1994). However, the inter-group effect may be moderated by culture.

In general, collectivists distinguish between in-group and out-group members more strongly than individualists (Triandis, 1989), cooperating with in-group members and competing with out-group members. Collectivists not only may make clearer distinctions between in- and out-groups than individualists, but they also may define in- and out-groups differently. Both factors may lead collectivists to make rather different decisions in inter-group situations. Furthermore, culturally based assumptions of hierarchy versus egalitarianism may come into play. When studied along with the cultural value of individualism versus collectivism, four categories are defined as follows (e.g., Triandis & Gelfand, 1998): (1) vertical-individualists

(high on hierarchy and high on individualism): (2) horizontal-individualists (low on hierarchy and high on individualism); (3) vertical-collectivists (high on hierarchy and low on individualism); and (4) horizontal-collectivists (low on hierarchy and low on individualism). Probst and her colleagues (1999) contrasted the single group decision-making context with an inter-group context in cross-cultural settings. They found that decision makers from individualist and hierarchical cultures (vertical individualists) were more likely to cooperate, similarly to decision makers in the Bornstein inter-group paradigm games. They were significantly less cooperative in the single-group context than in the inter-group context where in-group cooperation served to maximize their own individual payoffs. In contrast, vertical collectivists acted differently in the inter-group context. They cooperated with their three-person in-group less in the inter-group context than in the single group context, perhaps because they viewed the entire set of six people as an in-group with whom to cooperate. They saw that cooperating across inter-group boundaries maximized for the six as a whole, even though such behavior would not maximize for them personally. Probst et al. (1999) suggested that the vertical collectivists, whose defining characteristic relates to sacrificing own interests for the interests of the group, redefined the "group."

Culture and Rules

Rules simplify behavioral choices by narrowing options in social dilemmas. Utility maximization (especially in narrow economic terms) is only one of many possible decision rules that may apply in the appropriateness framework (Weber, Kopelman, & Messick, 2004). The category of rules that may influence behavior in social dilemmas includes not only explicit and codified guidelines for behavior (e.g., codes of ethics or laws), but also the less visible and

explicit influence of social heuristics (e.g., “women and children first” (Allison & Messick, 1990)) and habitual rituals (e.g., the equal division of resources (Messick, 1993), or equity norms (Adams, 1963)). These may all be influenced by cultural norms.

Cultural norms are rules of appropriate social interaction behavior—what one “ought” to do in a given situation. Norms are relevant to choice in social dilemmas because “they provide a means of controlling behavior without entailing the costs, uncertainties, resistances, conflicts and power losses involved in the unrestrained, ad hoc use of interpersonal power,” (Thibaut & Kelley, 1959, p. 147). Thus, cultural norms influence what rules decision makers are likely to adopt. Given a specific situation, culturally appropriate scripts, or sequences of appropriate social action may be adopted (Shank & Abelson, 1977).

Communities develop rather different solutions for resource allocation problems in social dilemmas because of cultural variation in what groups consider fair. Experimental research shows that norm formation occurs quite rapidly in groups (Bettenhausen & Murnighan, 1985) and then settles in to sustain group behavior over time. Cultural differences may become more pronounced over time. This appears to happen because cultural norms become elaborated. For example, definitions of who may use the resource can become refined, and rights may be passed down from generation to generation (Ostrom, 1990).

What is perceived to be fair in one culture may not be in another (Leung, 1997). In an ultimatum bargaining setting, the amount considered fair to Israeli and Japanese decision makers was different from the amount considered to be fair in U.S. and Yugoslavian cultures. When asked to make fair divisions of a good (usually money or candy), Chinese and Japanese decision makers typically distribute it more evenly than those from Australia or the U.S. (Kashima, Siegal, Tanaka, & Isaka, 1988; Leung & Bond, 1984; Mann, Radford, & Kanagawa, 1985).

Similarly, a contextual model confirmed an interaction between group culture and power on claiming resources in a simulated social dilemma (Kopelman, 2003). In a common dilemma where parties have different economic power (asymmetric dilemma), managers from different cultural groups—vertical-individualists (Israeli), vertical-collectivists (Hong Kong Chinese), horizontal-individualists (U.S.), and horizontal-collectivists (German) —seem to have applied different decision rules based on culturally appropriate fairness norms. Relative to managers from the U.S. and Germany, Israeli managers were more likely to follow an individually rational decision-making approach taking more resources in a high versus low economic power condition (following an equity rule), whereas decisions of Hong Kong Chinese managers reflected a collective rationality approach, forgoing individual profits by taking fewer resources in a high economic power condition (following an inverse equity rule). The influence of group culture was partially mediated by egocentric perceptions of fairness. Thus, culture influences the rules engaged in social dilemmas.

Discussion

This review of the appropriateness framework suggests that group culture influences all three current factors: identity, rules, and recognition of the situation. The identity of the individual making the decision, application of rules or heuristics in guiding behavioral choice, and recognition and definition of the kind of situation encountered could all be influenced by group culture. Whereas culture permeates these decision factors, it holds an important enough influence to be treated as a fourth factor. March's (1004) question: "What does a *person* like me *do* in a *situation* like this?" overemphasizes the self and ignores the group. Group-level values and norms, that is, group culture, significantly impacts cooperation in social dilemmas and

decision making at large. This chapter suggests a broader conceptualization of the appropriateness framework would take group culture into consideration and rephrase March's question to: "What does a *person* like me *do* in a *situation* like this given this *group* culture?"

Theorizing the application of culture in the decision-making process in resolving social dilemmas has implications for both researchers and practitioners. To better understand decision making, future empirical research will need to examine the effect of group culture on social dilemmas within a contextual framework. A contextual approach to group culture stresses the importance of examining the interactions between group culture and individual difference measures or situational factors, such that culture is a necessary but not a sufficient determinant of decision making (Gelfand & Dyer, 2000). In a social dilemma setting, this translates into studying the interaction among group culture, identity, recognition, and rules. Although this chapter has focused on social dilemmas, outcome implications are not limited to the decision-making process in such interdependent settings and maybe generalized to decision making in any social context. Better understanding of the influence of group culture on the decision-making process can help practitioners interpret different patterns of observed behavior, as well as design appropriate interventions for global resource management.

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