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**7. TESTING THE CULTURAL BOUNDARIES OF A MODEL OF TRUST:
SUBORDINATE-MANAGER RELATIONSHIPS IN CHINA, NORWAY AND THE
UNITED STATES**

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Abstract

The purpose of this study is to test a model of trust in the organizational setting, incorporating hypotheses about the effect of culture on the trust process. It is predicted that subordinates' trust in their supervisors is a function of their perceptions of their supervisors' behavior and their own propensity to trust. In addition, subordinates' cultural orientation toward relationships moderates the relationship between their perceptions of their managers' trustworthiness and trust, and their orientation to human nature directly affects propensity to trust. These predictions are tested by

using data collected with questionnaires completed by businesspeople in China (n=180), Norway (n=128) and the United States (n=203).

Introduction

Corporate survival hinges, at least in part, on building strategic alliances and long term relationships with other firms and providing customers with a valued product or service at a competitive advantage—organizational activities that are facilitated by the development of trust. Trust facilitates collaborative and cooperative relations between firms (Currall & Judge, 1995; Ring & Van de Ven, 1992) and provides firms with a competitive advantage (Barney & Hansen, 1994; Zaheer, McEvily, & Perrone, 1998). In recent years many models of trust and its antecedents have been developed, and empirical work has begun to test their validity.

However, although Whitener, Brodt, Korsgaard, and Werner (1998) raised the suggestion that national culture influences trust, most of the work to date has been developed and tested in North America, using American assumptions about how trust is built (Doney, Cannon, & Mullen, 1998 is an important exception). Under conditions in which approaches to relationships differ, antecedents of trust might also differ in systematic ways. Testing a theory of trust in different cultural settings, therefore, would provide us with one assessment of the theory's robustness. Second, if the antecedents of trust differ from one culture to the next, naïve managers may inadvertently destroy relationships where they intended to build them. Managers equipped with a more culturally sensitive understanding of the trust-building process, though, would be more likely to build effective relationships.

The purpose of this study is to propose and test a model of trust in the organizational setting, incorporating hypotheses about the effect of culture on the trust process. The focus of this study is the relationship between subordinates and managers. First a model is presented to predict a subordinate's trust in his or her manager, relying on social exchange processes emphasizing the role of both the trustor and the target, and on cognitive processes emphasizing the trustors' perceptions. Next, a framework of culture and hypotheses concerning culture's effect on trust are introduced. Finally, these predictions are tested using data collected with questionnaires completed by respondents in three countries: China, Norway and the United States.

The Development of Trust and the Role of Culture

Precise definitions of trust have been hard to pin down. Based on the reviews of trust literature, three major elements of subordinates' trust in their managers are summarized as follows. First, subordinates' trust reflects an expectation or belief that their managers will act benevolently. Second, because subordinates cannot force their managers to fulfill this expectation, they make themselves vulnerable to, or put themselves at risk of being hurt by, the managers' failure to fulfill this expectation. Finally, subordinates are dependent in some way on their managers in that subordinates' outcomes are influenced by their managers' actions. Thus, trust is an attitude held by subordinates toward their managers based on their perceptions, beliefs, and attributions about their managers derived from their observations of their supervisors' behavior.

In their model of interpersonal trust, Mayer et al. (1995) rely on early arguments that some individuals are more trusting than others when they propose that "propensity to trust" plays a significant role in affecting trust. They also proposed that perceptions of trustworthiness arise as potential trustors interpret the "data" on targets' ability, benevolence, and integrity, with five categories of behavior influencing employees' perceptions of managerial trustworthiness:

1. behavioral consistency—consistent behavior over time and across situations that helps employees predict future behavior
2. behavioral integrity—consistency between words and actions, particularly displayed in keeping promises and telling the truth
3. sharing and delegation of control—involvement of employees in decisions giving employees more control over factors that affect them and demonstrating managers' trust in their employees
4. communication—exchange and sharing of information and ideas in which managers provide accurate information and explain decisions as well as soliciting and being receptive to employees' input
5. demonstration of concern—showing consideration and sensitivity for employees' interests and needs, protecting employees' interests, and refraining from exploiting employees.

Following this work, it is proposed that trustors' propensity to trust and perceptions of their manager's behaviors influence their trust in their manager. Second, it follows to predict that trustors' propensity to trust and their perceptions are reciprocally related. Trustors' willingness to trust provides a filter through which they observe, interpret, and judge the target's behaviors. This general model of trust is shown in Figure 1 and summarized in the hypothesis below.

H1. Subordinates' trust in their supervisors will be a function of both trustors' perceptions of their supervisors' behavior and their propensity to trust.

Like trust, the construct of culture resists unambiguous definition. Following recent reviews of the international management literature, culture is defined as the set of deep-level values associated with societal effectiveness, shared by an identifiable group of people (Maznevski, DiStefano, Gomez, Noorderhaven & Wu, 1997). Simply put, culture is a shared agreement (usually implicit) about how to approach the world and each other.

Several researchers (e.g., Adler, 1997; Kirkman & Shapiro, 1997) have recommended Kluckhohn and Strodtbeck's (1961) "cultural orientations" framework to investigate the impact of national culture on managerial issues. According to Kluckhohn and Strodtbeck, cultures (and individuals) vary in how they presume people should relate to each other on three dimensions. First, the individualism dimension focuses on one's self. People and cultures whose highest relationship priority is individualism assume that their most important responsibility in relationships should be to themselves and their immediate family. Second, the collectivism dimension focuses on how individuals relate to larger groups of people such as extended family or work groups. People and cultures whose highest relationship priority is collectivism assume that we should be responsible to these larger groups first, and ourselves second. Finally, the hierarchy dimension focuses on whether individuals accept significant differences in power and responsibility. People and cultures whose highest relationship priority is hierarchy assume that those higher in the power structure should have control over and responsibility for those lower in the structure.

In their conceptual paper, Doney et al. (1998) predicted that two of the orientations—orientation toward human relationships and perception of human nature—were relevant to the development of trust. As demonstrated above, trust concerns social exchange in the relationships

among people. Furthermore, trust is affected by the trustors' general attitude regarding whether others are trustworthy, or have a good nature. Therefore, these two orientations are taken as the focus of the theory's development.

The three countries in this study are expected to differ from each other in terms of their cultural orientations towards relationships and human nature. Previous research (e.g., Hofstede, 1984; Zander, 1997) has shown that the United States is one of the most individualist countries in the world, and that Scandinavian countries tend to be much more collective. Although China was labeled as a collectivistic country, all the data in Hofstede's study was collected from areas other than Mainland China and should not be taken for granted. Actually, while hierarchy is not valued strongly in either the United States or Scandinavia, the history of imperial systems in China makes it a traditional value and general expectation for the Chinese (Hofstede, 1984; Zander, 1997). Group members would expect their leaders to take care of the followers in exchange for their efforts for the group welfare. Previous research has not measured differences among these cultures in terms of nature of humans. However, it is speculated that Norway's active role in initiating and supporting global peace keeping efforts without military force, and the country's laws and norms such as those concerning public access to private property (e.g., anyone is allowed to walk on or camp on others' private property without requesting permission) predict a stronger assumption that humans are good than the parallel indicators for the United States. While in China, despite the philosophical debate as to whether human nature is good or bad, people would be more protective and defensive after several major political upheavals during which people stabbed each other in the back, although more as a consequence of pressure.

H2. Respondents from the three cultures will demonstrate significant differences in their preference for individualism, collectivism, hierarchy and assumptions of human nature.

Based on previous research, it is suggested that culture influences subordinate-manager trust most substantively in two ways: orientation to relationships moderates the relationship between managerial trustworthy behaviors and trust; and orientation to human nature directly affects propensity to trust (see Figure 1).

Doney et al. (1998) introduced the role of fit between behavioral assumptions associated with national culture and the perceptions and evaluations of the trustor. For example, they predicted

that individuals in collectivist cultures would use “prediction,” “intentionality,” and “transference” cognitive processes because the culture’s focus on the group fits the behavioral assumptions associated with these processes. While Whitner et al. (1998) predicted that subordinates are more likely to trust their managers if they perceive that their managers engage in all five sets of managerial trustworthy behavior. This study would examine these two conflicting arguments by testing the following hypotheses.

H3. Regardless of their cultural orientations toward relationships, subordinates’ perceptions of the five sets of managerial behaviors will all be strong predictors of trust in managers.

H4. In the country that has a stronger assumption that humans are essentially good, the average level of propensity to trust will be higher than in the country that has a weaker assumption that humans are essentially good.

Method

Survey data were collected from businesspeople in China, Norway and the United States. Detailed description of the samples and procedures are available upon request. The surveys were administered in English, Chinese and Norwegian.

Propensity to trust was measured by the 10 items from the “L scale” of the 16 PF (Cattell, 1965). A high score on the L scale indicates low trust (high vigilance). McAllister (1995) developed 5 items to measure affective trust-in-supervisor. The scale score was derived by calculating the mean score for each respondent. Subordinates’ perceptions of their manager’s trustworthy behavior were measured with items derived from Butler’s (1991) Conditions of Trust Inventory and Driscoll’s (1978) measure of participation in decision-making. The items for each dimension were averaged to represent each individual’s score for that dimension.

The four culture variables in this study were measured using scales taken from Maznevski et al.’s (1997) Cultural Perspectives Questionnaire. To diminish the variance associated with systematic response bias, Leung & Bond (1989) and others (e.g., Maznevski et al., 1997; Peterson et al., 1995) recommend data subject to this type of bias be within-person standardized before conducting analyses relating cultural variables to each other and to other variables.

Accordingly, within-person standardized scores for each person for the cultural scales were calculated and used in the analyses.¹

Results and Discussion

Table 1 presents the means, standard deviations, and correlations among the variables measuring propensity to trust, trust-in-supervisor, perceptions of managerial trustworthy behavior, and cultural orientations for the three samples.

A three-step process suggested by Baron and Kenny (1986) was used to investigate the impact of propensity to trust and perceptions of managerial trustworthy behavior on trust-in-supervisor in each sub-sample (H1). First, each managerial trustworthy behavior was regressed on propensity to trust to estimate the strength of the relationships between these two variables. As shown in Table 2, in the US sample, the relationships between propensity to trust and each behavior were significantly different from zero, while in the China sample, behavioral consistency turned out to be non-significant and in the Norway sample, neither behavioral consistency nor delegation was significant. Second, a hierarchical regression analysis was conducted, entering propensity to trust in the first step to estimate the amount of variance it explains in trust-in-supervisor and entering the set of behaviors in the second step to estimate the increase in the amount of variance they explain in trust-in-supervisor while controlling for propensity to trust. The results (also shown in Table 2) indicate that in each culture, a significant relationship between propensity to trust and trust-in-supervisor becomes non-significant upon adding the set of behaviors.

These results are consistent with a condition of perfect mediation (Baron & Kenny, 1986). Trust-in-supervisor is a function of both propensity to trust and perceptions of trustworthy behaviors; however, propensity to trust has an indirect impact on trust-in-supervisor through perceptions of behaviors.

In addition, the results indicate that only two of the five behaviors had a consistently significant impact on trust-in-supervisor across cultures. Subordinates' perceptions of their

¹ Within-person standardization involves calculating a mean and standard deviation for each person across all the items being standardized, regardless of scale. Then a new standard score is calculated for each variable (for each person), using the person's overall questionnaire mean and standard deviation as the basis of standardization. We did not standardize other scales used in this research because, upon close examination, they did not seem to be subject to such response bias.

supervisors' two-way communication and demonstration of concern significantly affected their trust in their supervisor; behavioral integrity was significant only in the US sample; whereas, delegation and behavioral consistency turned out to be non-significant in all three samples.

ANOVA comparisons between the three samples (shown in Table 1) generally confirm the expected cultural differences described in Hypothesis 2. The Chinese sample scores highest on hierarchy, second on individualism and third on collectivism and assumption of good human nature. The Norwegian sample scores the highest on collectivism and assumption of good human nature, and third on individualism and hierarchy. The American sample scores the highest on individualism, second on collectivism, hierarchy and assumption of good human nature.

Hypotheses 3 predicts that the strength of the relationships between perceptions of trustworthy behaviors and trust-in-supervisor does not vary by orientation toward relationships. As shown in Table 3, perceptions of managerial trustworthy behavior predicted 41% of the variance in trust-in-supervisor in the China sample, 65% of the variance in the Norway sample, compared to 75% of the variance in the United States sample. Two-way communication turned out to be significant only in US and Norway but not in China. Concern was significant in all three countries and behavioral consistency was not significant in either country. Integrity was significant only in US. Finally, hypothesis 4 predicted a relationship between orientation toward human nature and propensity to trust. Across the whole sample, the correlation between these two variables was .67 ($p=.000$). It was also predicted that because the Norway sample has most "good" assumptions about others than the United States and China sample that they would also have a highest propensity to trust. As shown in Table 1, the ANOVA results are consistent with this prediction.

The patterns emerging in the results led to the question of whether previous conceptual approaches to trust have missed a critical relationship: the importance of the target surpassing the trustor's expectations regarding benevolent behaviors. For example, it was found that people who hold a strong assumption that people are inherently good also have a strong propensity to trust and—perhaps as they expected—tended to see their supervisors as engaging in more of the trustworthy behaviors. However, if they expect to see those behaviors, and trust is earned by surpassing expectations, then the supervisor would not necessarily be trusted more than if the trustor had a lower propensity to trust in the first place. The small difference in the trust level between the US and Norway sample demonstrates this point clearly. It was also found that

behavioral consistency and delegation and sharing of control did not predict trust in either country. In the business world across the country, empowerment and delegation of authority is a strongly encouraged management approach, and in fact may have been expected by the respondents. Managers who engaged in this behavior, therefore, would not necessarily be surpassing their subordinates' expectations, and, if the supposition is correct, would not be earning trust. By the same token, behavioral consistency could be taken as a must for a decent person in all three countries, not only for a manager—which accounts for why they are not earning the manager any trust either. Therefore it follows to suggest that future empirical research and conceptualizations of trust explore the notion that targets of trust must surpass trustors' expectations in their benevolent behaviors in order to earn trust.

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Table 1: Means, Standard Deviations, and Correlations of Key Variables for China, Norway, and United States

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Propensity to trust ^a	-										
2. Behavioral consistency	-02 -10 -18	-									
3. Behavioral integrity	-26 -33 -27	53 41 69	-								
4. Two-way communication	-27 -26 -15	33 28 54	71 70 63	-							
5. Sharing/delegation of control	-19 -13 -18	32 26 46	59 64 54	75 71 72	-						
6. Demonstration of concern	-20 -32 -24	40 33 58	80 80 76	65 71 69	54 66 57	-					
7. Trust-in-supervisor	-11 -24 -17	22 33 57	57 67 75	61 76 80	54 57 62	59 72 77	-				
8. Collectivism ^b	-21 -02 -16	-03 -09 -08	23 01 07	25 06 00	21 07 -00	21 06 00	14 03 02	-			
9. Hierarchy ^b	-05 -10 -00	07 03 14	-03 03 07	-10 -04 02	-01 -09 00	-06 -04 08	-03 05 04	-53 -57 -50	-		
10. Individualism ^b	17 14 17	-03 05 -05	-20 -05 -14	-15 -02 -02	-22 03 -00	-14 -02 -08	-13 -09 -06	-52 -37 -54	-47 -54 -46	-	
11. Good-evil ^a	25 37 44	05 05 -02	-26 -27 -11	-24 -15 -04	-07 -19 -01	-22 -31 -06	-12 -19 -02	-19 -17 -21	12 14 27	10 03 -04	-
Mean	13.11 5.64 9.05	3.24 3.38 3.43	3.17 4.03 3.81	3.09 3.66 3.64	3.12 3.80 3.62	3.29 4.23 3.82	3.00 3.49 3.46	.23 .60 .30	-.20 -.51 -.38	0 -.01 .14	3.55 1.88 2.62
Standard Deviation	2.96 3.34	.79 .75	.83 .79	.73 .74	.73 .69	.80 .74	.84 .86	.36 .31	.30 .29	.35 .30	.70 .65

	4.30	.87	.83	.76	.70	.80	.98	.37	.30	.36	.75
F	161.166	2.697	47.467	32.589	40.127	55.372	16.363	42.665	39.577	11.053	207.965
P	.000	.068	.000	.000	.000	.000	.000	.000	.000	.000	.000
Eta-squared	.389	.011	.159	.115	.138	.181	.061	.147	.138	.043	.455

Note: Correlations, descriptives, and analysis of variance results in each cell are in the following order: China (n=180), Norway (n=128), United States (n=203). Decimal points are omitted. For China, $r > .16$, $p < .05$; $r > .19$, $p < .01$. For Norway, $r > .17$, $p < .05$; $r > .23$, $p < .01$. For United States, $r > .14$, $p < .05$; $r > .18$, $p < .01$.

^a Reverse scored.

^b Scores standardized within person.

Table 2
Hierarchical Regression of Determinants of Trust-in-Supervisor—China, Norway and US

Independent Variable	Dependent Variable	R ²	β	p
Propensity to Trust	Behavioral Integrity	.06	-.26	.000
		.10	-.33	.000
		.07	-.27	.000
	Demonstration of Concern	.04	-.20	.007
		.10	-.32	.000
		.05	-.24	.001
	Behavioral Consistency	.00	-.02	-
		.00	-.10	-
		.03	-.18	.011
	Delegation	.03	-.19	.013
		.01	-.13	-
		.03	-.18	.012
	Two-way Communication	.07	-.27	.000
		.06	-.26	.003
		.02	-.15	.031
Step 1: Propensity to Trust	Trust-in-Supervisor	.07	-.27	.000
Step 2: (MTBs)		.05	-.24	.006
		.03	-.17	.014
		.44		.000
Behavioral Integrity		.63		.000
		.75		.000
			1.34	-
Demonstration of Concern			.09	-
			.28	.000
			2.90	.004
Behavioral Consistency			.32	.002
			.25	.000
			-1.53	-
Delegation			.61	-
			-.01	-
		1.733	-	
Two-way Communication		-.05	-	
		.01	-	
		2.687	.008	
Propensity to Trust		.49	.000	
		.45	.000	
		1.357	-	
		.02	-	
		.02	-	

Table 3 Regression Results by Country

	China				Norway				United States			
	R ²	B	β	p	R ²	B	β	p	R ²	B	β	p
Behavioral Integrity	.41	-	-	-	.65	-	-	-	.75	.269	.223	.012
Concern		.257	.242	.028		.364	.314	.002		.395	.327	.000
Behavioral Consistency		-	-	-		-	-	-		-	-	-
Delegation		-	-	-		-	-	-		-	-	-
Two-way Communication		-	-	-		.564	.487	.000		.536	.410	.000
N	128				128				128			