

# **Responding to Adverse Situations within Exchange Relationships: The Cross-Cultural Validity of a Circumplex Model**

## **ABSTRACT**

When faced with adverse situations in exchange relationships, the people involved are required to respond. Response strategies are reactions to such adverse situations and represent cognitive schemata organized in an integrated structure forming a mental map. Extant response strategy research implicitly assumes that the content and internal structure of response strategies is universal, but with few exceptions, it fails to assess cross-cultural validity, a necessary step to investigate potential cultural variations in response strategy preferences. This study has investigated the cross-cultural validity of a circumplex model in the Netherlands, Switzerland, Turkey, and Japan. The seven response strategies examined attained measurement equivalence, and six were organized in an equivalent circumplex structure in all four countries. The findings also revealed cross-cultural differences in people's preference to use response strategies. This study therefore contributes to the cross-cultural psychology literature by demonstrating that response strategy content and structure are nearly universal, whereas preferences for using response strategies vary across cultures.

**Response strategies are relationship-focused reactions** people use in an attempt to resolve a dissatisfying situation (Tjemkes & Furrer, 2010), which represent cognitive schemata organized in an integrated structure forming a mental map in people's minds, similar to individual values (Schwartz, 1992) and personal goals (Grouzet et al., 2005). Therefore, people from different cultures may perceive different meanings of and prefer varying response strategies. Yet most cross-national studies investigating response strategy preferences assume response strategies to be universal and fail to assess measurement equivalence (e.g., Lee & Jablin, 1992; Vigoda, 2001; Yum, 2004). To address this concern, we test whether and to what extent the content and internal structure of response strategies are equivalent across cultural groups, a necessary step before investigating cross-cultural variations in response strategy preferences.

The exit, voice, loyalty, and neglect (EVLN) typology remains the most popular conceptualization of response strategies and has earned substantial theoretical and empirical support in various relationship situations, including romantic involvement (Rusbult, Zembrodt, & Gunn, 1982), employee-supervisor relationships (Thomas & Pekerti, 2003), and alliances (Tjemkes & Furrer, 2010). It also has received empirical support in several countries, including the United States (Ping, 1993), the Netherlands (Hagedoorn et al., 1999), and Sweden (Liljgren, Nordlund, & Ekberg, 2008). A few cross-cultural studies have started to investigate differences and similarities in preferences for response strategies (e.g., Thomas & Pekerti, 2003; Yum, 2004), yet three issues persist with respect to the cross-cultural validity of the EVLN typology. First, some newly identified strategies are not captured by the four EVLN strategies, and their content may be country specific. For example, Hagedoorn and colleagues (1999) identified aggressive voice as a form of voice in the Netherlands, whereas using a Swedish sample, Liljgren and colleagues (2008) found that this response strategy had low reliability and poor discriminant validity, which they argued indicated that its content differed across countries. Other response

strategies include opportunism (Ping, 1993) and creative voice (Zhou & George, 2001), but no study has assessed their cross-cultural equivalence. Second, studies have questioned the two-dimensional structure that organizes the EVLN typology as possibly inadequate for capturing the interrelationships among response strategies (Hagedoorn et al., 1999; Thomas & Pekerti, 2003). Instead, response strategies might be organized in a circumplex structure. Although, Hagedoorn and colleagues (1999) found empirical support for a circumplex structure of response strategies, no studies have assessed the cross-cultural validity of the circumplex structure of response strategies. Third, a few cross-cultural EVLN studies showed that response strategy preferences may be influenced by culture (Lee & Jablin, 1992; Vigoda, 2001; Yum, 2004). However, because these studies did not assess the cross-cultural validity of their content and structure, we cannot know if differences in preferences for response strategies really reflect cultural differences.

To address these three issues, we assess the cross-cultural validity of the content, internal structure, and preferences for response strategies (Matsumoto & Yoo, 2006; van de Vijver & Leung, 1997). To do so, we draw on research pertaining to response strategies in an effort to (1) define and measure an extended set of seven response strategies that are valid across cultures; (2) empirically demonstrate that the structure underlying the response strategy typology can be represented best by a circumplex and is equivalent across cultures; and (3) conduct an assessment of cultural differences in response strategy preference. We contribute to the debate between universalist and relativist approaches in cross-cultural psychology research by demonstrating that the seven response strategies have measurement equivalence and that six of them possess an internal structure that appears nearly universally organized in a circumplex fashion. However, preferences for these strategies vary across cultures.

### **AN EXTENDED EVLN RESPONSE STRATEGY TYPOLOGY**

Hirschman (1970) initially identified exit, voice, and loyalty as three alternative responses

to organizational decline. The addition of neglect by Farrell (1983) led to the EVLN four-strategy typology (Rusbult et al., 1988). More recent research refined and increased the number of response strategies and identified seven: exit, opportunism, aggressive voice, creative voice, considerate voice, patience (which replaces loyalty), and neglect (Tjemkes & Furrer, 2010). Exit indicates a disinclination to continue the current relationship (Hirschman, 1970) and thus reflects the ultimate and most destructive response to an adverse situation (Rusbult et al., 1982).

Opportunism as a response strategy entails an active intention to increase benefits from a relationship in ways that are explicitly or implicitly prohibited within the relationship (Ping, 1993; Wathne & Heide, 2000). Hirschman (1970, p. 39) conceptualized voice broadly as “any attempt at all to change, rather than to escape an objectionable state of affairs.” However, empirical studies (Rusbult et al., 1988) reported low internal consistency for voice, suggesting that it might be a more complex construct with several subcomponents; therefore, more recent studies have distinguished among three types of voice: aggressive, creative, and considerate. Aggressive voice consists of persistent efforts to solve the adverse situation, regardless of the partner’s ideas (Hagedoorn et al., 1999). With aggressive voice, people forcefully impose their views on others, without trying to avoid conflicts (Hibbard et al., 2001). Creative voice refers to voicing novel and potentially useful ideas (Zhou & George, 2001) and represents an attempt to overcome an adverse situation unilaterally by proposing innovative solutions. Considerate voice represents an attempt to change the situation by communicating in a relationship-preserving manner (Ping, 1993). People consider both their own concerns and those of their partner (Hagedoorn et al., 1999) by discussing the situation with the intent to develop mutually satisfactory solutions (Hibbard et al., 2001). Patience involves silently abiding the issues, with the confidence that things will improve in the future (Hibbard et al., 2001; Ping 1993). People voluntarily ignore the issue and hope that the adverse situation resolves itself, so they consider

undesirable circumstances transitory phenomena that will dissipate over time (Ping, 1993). Finally, neglect pertains to allowing a relationship to deteriorate (Rusbult et al., 1982). A neglectful person expends little effort to maintain the relationship and ignores possible ways to solve the situation, such that the relationship eventually dies (Ping, 1993).

We expect that the seven response strategies have the same universal content across cultures. However, this prediction requires that the strategies be defined in broad terms and at a relatively high level of abstraction (Hui & Trandis, 1985). That is, broadly defined strategies might be perceived similarly across cultures, whereas narrowly defined strategies likely are context specific and thus may connote different contents in different cultures. For example, if neglect is broadly defined as “passively allowing the relationship to deteriorate,” it should have the same meaning across cultures, but if it is defined as “reducing commitment to the relationship by not communicating anymore with a partner,” it is context specific and difficult to compare meaningfully across cultures. Support for the assumption comes from Thomas and Au (2002) and Thomas and Pekerti (2003), who found that the four EVLN strategies had the same meaning across cultures when they defined the response strategies abstractly, which allowed for comparison. Even if some studies failed to recognize certain response strategies in specific cultural contexts (e.g., Liljegren et al., 2008), we expect that when measured at a high enough level of abstraction, response strategies retain the same universal content across cultures (Poortinga, Van de Vijver, & Van Hemert, 2002).

**Hypothesis 1:** The seven response strategies of exit, opportunism, aggressive voice, creative voice, considerate voice, patience, and neglect have the same meaning across cultures.

#### *Response Strategy Internal Structure*

In Hirschman’s (1970) exit, voice, and loyalty typology, the three strategies were organized along a constructive–destructive dimension (Leck & Saunders, 1992). The addition of neglect by

Farrell (1983) led to the identification of a second, active–passive dimension, such that each of the four response strategies are located in one of the quadrants: exit as active–destructive, voice as active–constructive, loyalty as passive–constructive, and neglect as passive–destructive (Farrell, 1983; Rusbult et al., 1982). In contrast with empirical evidence (Rusbult et al., 1988), the two-dimensional simple structure is built on the assumption that response strategies are discrete and independent constructs. Hagedoorn and colleagues (1999) showed that a circumplex structure would be better suited to represent the interrelationships among the strategies. First, a circumplex structure postulates that the nature of the relationships among variables can be explained best by restricting the location of the variables to the circumference of a circle (Fabrigar et al., 1997). The seven response strategies could be located in the two-dimensional space of the EVLN typology, but they all would be located at the same distance from the center of the circle, which means that they would all have the same weight or importance in people’s minds. Second, a circumplex structure systematically organizes response strategies according to their degree of compatibility and incompatibility (Fabrigar et al., 1997; Gurtman, 1992; Schwartz, 1992). For example, creative voice and considerate voice, which are compatible, are located close by on the circle, whereas patience and aggressive voice, which are incompatible, are located opposite each other. This important characteristic reflects how compatible strategies are likely to be perceived as close alternatives in a particular adverse situation, whereas incompatible strategies are not likely to be considered simultaneously. Third, a circumplex structure is continuous, so there could be interstitial strategies between any pair of dimensions (Saucier, 1992). Thus, the circumplex structure can integrate new response strategies that blend the original EVLN strategies (Hagedoorn et al., 1999; Saucier, 1992). Furthermore, empirical evidence has suggested that response strategies represent a broad range of related responses (Rusbult et al., 1988). For example, weak forms of exit may verge on neglect, strong forms of loyalty approach

considerate voice, and so on. Although response strategies can occur in their pure form, a response also could be a combination of two strategies, which indicates a continuous structure.

Building on the circumplex structure identified by Hagedoorn and colleagues (1999) that reflects the active–passive and constructive–destructive two-dimensional space, we expect that our extended response strategy typology will exhibit a circumplex structure. Starting from exit, which depicts the most destructive strategy, and turning clockwise, the response strategies are likely to be ordered as follows: Opportunism should be next to exit, because it is more active and less destructive, followed by aggressive voice, which is active but neither constructive nor destructive. Next there is creative voice, which is also active but constructive. Less active but more constructive, considerate voice comes next. Patience, which is also constructive but passive, follows. Finally, neglect appears, involving a passive–destructive response.

Cross-cultural studies offered empirical support for the two active–passive and constructive–destructive dimensions of the EVLN typology (Lee & Jablin, 1992; Thomas & Au, 2002; Vigoda, 2001). The circumplex structure of the extended typology, however, has not been tested across cultures. Cross-cultural studies of circumplex structures (e.g., Grouzet et al., 2005), empirically demonstrated that at a high level of abstraction, compatibility and incompatibility relationships encompassing the circumplex structure are consistent across cultures. Therefore, we contend that across cultures, people have equivalent mental maps of their response strategies, and we expect response strategies to be organized in the same circumplex structure across cultures.

**Hypothesis 2:** The seven strategies appear organized along the circumference of a circle across countries in the same order: exit, opportunism, aggressive voice, creative voice, considerate voice, patience, neglect.

#### *Cultural Differences in Response Strategy Preference*

Even if response strategies' internal structure is the same across cultures, empirical studies

suggested possible cross-cultural differences in the preferences for these strategies (Lee & Jablin, 1992; Thomas & Au, 2002; Vigoda, 2001; Yum, 2004). Because exchange relationships involve normative beliefs about how people should behave when interacting with others, the preference for using response strategies is likely to vary across cultures (Doney, Cannon, & Mullen, 1998; Thomas & Pekerti, 2003). Hofstede's (2001) cultural values typology identified four dimensions: individualism/collectivism, masculinity/femininity, uncertainty avoidance, and power distance. Of the four dimensions, individualism/collectivism has dominated cross-cultural research and is perhaps the most commonly used to explain cultural differences (Gelade, Dobson, & Auer, 2008; Hofstede, 2001; Triandis, 1995). Masculinity/femininity also has a powerful influence on various social behaviors, including conflict management style (Hofstede & Usunier, 2003). Both dimensions are particularly relevant with regard to the effect of culture on response strategies in our study setting (i.e., alliances; see the method section), because they provide social norms about how people should interact with others (Doney et al., 1998).

For reasons of parsimony, we have not developed hypotheses related to the other two dimensions. Power distance correlates strongly with individualism/collectivism (Hofstede, 2001), and therefore, its effect on response strategy preference should be similar. Differences in terms of uncertainty avoidance tend to be detrimental to exchange relationships, because they imply differences in how people perceive opportunities and threats in the environment (Barkema & Vermeulen, 1997). Therefore, exchange relationships between partners with high and low uncertainty avoidance are less likely. Building on the individualism/collectivism and masculinity/femininity cultural dimensions, we develop two hypotheses pertaining to potential differences in response strategy preferences.

*Individualism/Collectivism.* In individualist cultures, personal goals and interests take precedence over those of the group (Hofstede, 2001). Triandis (1995) suggested that in



collectivistic cultures, people instead make clear distinctions between in-group and out-group members. Under collectivistic norms, predilections for group affiliation may encourage members to overlook or downplay differences between themselves and in-group members but make sharp distinctions between members and out-groups (Nakana, 1971). In collectivist cultures, social norms require people to hold group values and beliefs, because it is most important to protect group harmony and save face and embarrassment (Hofstede, 2001). In these cultures, cooperation is high with in-group members but unlikely when the other person belongs to an out-group (Triandis, 1995). People in individualistic cultures do not make much distinction between in- and out-groups and thus have less difficulty collaborating with outsiders. That is, in individualistic cultures, relations with others should be rational and governed by cost–benefit calculations, whereas in collectivistic cultures, emotional concerns are more important (Triandis, 1995).

In an adverse situation, individualistic cultural norms influence people to prefer more active and constructive strategies to solve the situation, because such norms induce people to pursue individual objectives. Considerate voice is more likely in individualistic cultures, because this form of voice aims to repair the relationship through discussion of the adverse situation with one's partner. In contrast, people in collectivistic cultures are less likely to choose considerate voice, because making relationship hazards with partners transparent could be discomfoting. Because creativity may disturb group harmony, creative voice is more likely in individualistic cultures than in collectivistic cultures. In more collectivistic cultures, which value conformity and tradition, creativity should be minimized (Lubart & Sternberg, 1998). In collectivistic countries, people are inclined to consider their business exchange partners as out-groups (Johnson, Cullen, Sakano, & Takenouchi, 1996); therefore, in an adverse situation, they are more likely to prefer destructive or passive strategies to protect group harmony and save face. Exit is more likely in collectivistic cultures, because ending a relationship saves face by avoiding the conflicts

inherently tied to a slowly deteriorating relationship. Active–destructive strategies, such as opportunism and aggressive voice, are also more likely in collectivistic cultures, because endangering a relationship with an out-group is considered more acceptable for them than it would be in individualistic cultures (Chen, Peng, & Saporito, 2002; Doney et al., 1998). In collectivistic cultures, people also prefer passive, relationship-preserving strategies, such as patience and neglect (Yum, 2004). Passive strategies do not directly deal with the adverse situation, which better preserves collective interests, because avoiding confrontation is an important social norm in collectivist cultures (Morris et al., 1998; Yum, 2004). Thus,

**Hypothesis 3a:** In cultures characterized by individualistic norms, people are more likely to prefer creative and considerate voices and less likely to prefer exit, opportunism, aggressive voice, neglect, and patience compared with people in cultures with collectivistic norms.

*Masculinity/Femininity.* Masculine societies convey norms that emphasize the need for autonomous, competitive, and assertive actions to achieve materialistic goals. Masculine cultures also tend to emphasize decisive and daring behavior (Hofstede, 2001; Hofstede & Usunier, 2003). Conflicts get resolved through fighting rather than compromising. Dominant norms in masculine cultures value success, money, and material, with preference for more extrinsic rewards (Hofstede & Usunier, 2003). These norms result in more ego-boosting behaviors and sympathy for the strong, which suggests more aggressive, less cooperative, and more destructive behaviors. In contrast, feminine cultures convey norms that emphasize the need for collaboration and relationships (Hofstede, 2001). The dominant norms are caring for others and quality of life, with preference granted to more intrinsic rewards (Hofstede & Usunier, 2003). Feminine cultures exhibit a pattern of nurture, and there is a general norm toward less aggressive, more cooperative, and more constructive behavior (Doney et al., 1998). The more caring sensitivity of feminine cultural norms also requires preserving relationships and finding consensus (Hofstede, 2001).

Masculine cultural norms, such as competition and assertiveness, value more active and destructive strategies; feminine norms, which convey ego effacement and lower tolerance for destructive strategies, value constructive and passive strategies. Exit is more likely in masculine cultures, because it is a bold response, which depicts a lack of caring. Resolving dissatisfying relationship situations by increasing the rewards obtained from the relationship may be more accepted in masculine cultures, even though this effort may involve some relational risks. Therefore, the preference for using opportunism and aggressive voice is more likely in masculine than in feminine cultures. People in feminine cultures are less likely to prefer such responses, which conflict with the social norm of caring for others' well-being. As a active strategy, which could involve high risks, creative voice should be more likely in masculine than in feminine cultures (Lubart & Sternberg, 1998). Considerate voice is more likely to be preferred in feminine than masculine cultures, as it involves more cooperation than competition and requires consideration of the partner's opinions and preferences. People in feminine cultures are also more likely to prefer passive strategies, such as patience, which fosters well-being in the relationship, and neglect, which avoids conflict with the partner.

**Hypothesis 3b:** In cultures characterized by masculine norms, people are more likely to prefer exit, opportunism, and aggressive and creative voices and less likely to prefer considerate voice, patience, and neglect compared with people in cultures with feminine norms.

These cultural dimensions might also interact to influence response strategy preferences, whether by reinforcing or cancelling out each other. However, predictions at this stage are not warranted, so we do not propose a specific hypothesis about the direction of this interaction.

## **METHOD**

### *Study Setting and Procedure*

To test the hypotheses, we designed a scenario-based experiment. Similar to response

strategy studies that use business relationships to understand responses to adverse situations (Geyskens & Steenkamp, 2000; Ping, 1993; Tjemkes & Furrer, 2010), we developed 16 scenarios describing an adverse situation in an alliance between two business firms to trigger response strategies. We chose this large number of scenarios to generate sufficient variance along the two expected dimensions of the internal structure of the response strategies, as well as distinguish between adjacent strategies. The scenarios manipulated economic satisfaction, social satisfaction, alliance-specific investments, and the availability of alternatives (Tjemkes & Furrer, 2010) at two levels each. The experiment thus used a four-factor by two-level between-subjects design, in which we combined the manipulations to form 16 different scenarios and from which we removed the all-positive scenario, because pretests indicated that it was not adverse enough to trigger a response.

#### *Country Selection and Samples*

The experiment was conducted with a sample of business students from the Netherlands, Switzerland, Turkey, and Japan. We selected these four countries to maximize the differences on the individualism and masculinity scales and to reduce the potential confounding effects of power distance and uncertainty avoidance (Sivakumar & Nakata, 2001). Specifically, Hofstede's (2001) individualism scores for the four countries are as follows: 80 for the Netherlands, 64 for the French-speaking part of Switzerland, 37 for Turkey, and 46 for Japan. Thus, the Netherlands and Switzerland appear more individualistic, whereas Turkey and Japan tend to be more collectivistic. Hofstede's masculinity scores for these four countries are 14 for the Netherlands, 45 for Turkey, 58 for the French-speaking part of Switzerland, and 95 for Japan. Therefore, Switzerland and Japan possess more masculine cultures, whereas the Netherlands and Turkey are more feminine cultures. To a lesser extent, the four countries also vary in power distance and uncertainty avoidance. For power distance, Hofstede's scores are 38 for the Netherlands, 54 for

Japan, 66 for Turkey, and 70 for the French-speaking part of Switzerland. However, because power distance correlates with individualism, both dimensions should have similar effects. For uncertainty avoidance, Hofstede's scores are 53 for the Netherlands, 70 for the French-speaking part of Switzerland, 85 for Turkey, and 92 for Japan, which indicates a difference between the Netherlands and the other countries. Even if this difference is notable though, the four scores are all above average, which limits the impact of a potential confounding effect.

We used students enrolled in Master's in Business Administration programs as respondents. We collected 1,129 questionnaires in the Netherlands, Switzerland, Turkey, and Japan. The Dutch sample consisted of 334 respondents (average age of 24.4 years, 36% of women); the Swiss sample consisted of 255 respondents (average age: 23.3 years, 42% of women); the Turkish sample consisted of 278 respondents (average age: 23.3 years, 50% of women); the Japanese sample consisted of 262 respondents (average age: 24.4 years, 32% of women).

During class hours, students received an invitation to participate in an experiment; if they agreed, they received a document containing a scenario with an adverse situation in an alliance setting and a series of questions pertaining to preferences for using response strategies. The instructions asked participants to read the scenario and answer the questions as if they were the manager responsible for dealing with the adverse situation. We assessed the degree to which respondents understood the scenarios using four manipulation check questions. To test for the effect of the manipulations, we subjected the items to a four-factor multivariate analysis of variance (MANOVA). The effects of the four factors were significant at .01; the respondents understood the manipulations.

### *Response Strategy Measures and Controls*

To operationalize the response strategies, we used existing scales, adapted to the alliance setting if necessary. The complete list of items and their sources are presented in Appendix A. All

measures used seven-point Likert scales, ranging from “I would definitely not react in this way” [1] to “I would definitely react in this way” [7]. The studies in the Netherlands and Switzerland used the original scales in English, because English was the language used by students in their study programs. The Turkish and Japanese students received Turkish and Japanese versions, respectively, developed using standard translation and back-translation procedures (van de Vijver & Leung, 1997). We included a three-item scale to measure overall satisfaction with the situation and assess the external validity of the circumplex structure of the response strategies.

Furthermore, to control for demographic characteristics, we included age and gender items (e.g., Rusbult et al., 1988). A single-item scale enabled us to assess perceptions of the severity of the situation (Rusbult et al., 1988). Another important issue we controlled for was the possibility of socially desirable responding (Matsumoto & Yoo, 2006; Paulhus, 1991). In addition to being methodological artifacts, response biases can exert important cultural influences on the data (Smith, 2004). Although standardization provides a means to control for response bias, we did not standardize the data before analysis, which would have masked important cultural differences (Fischer, 2004). However, to address concerns about response bias, we included the MC2 version of the Marlowe-Crowne social desirability scale (Strahan & Gerbasi, 1972). Some response strategies are socially desirable (e.g., considerate voice) and others are undesirable (e.g., opportunism); therefore, a sense of social desirability likely biases the data at the individual level.

### *Analyses*

The analytical strategy, adapted from Grouzet and colleagues (2005), first required us to assess the reliability using Cronbach’s alpha and factor loadings from an exploratory factor analysis (EFA). Then, we conducted a confirmatory factor analysis (CFA) for each country separately to test the proposed seven-factor response strategy structure. Unlike Grouzet and colleagues (2005) but as recommended by Perrinjaquet, Furrer, Usunier, Cestre, and Valette-

Florence (2007), we tested seven-factor models rather than the seven dimensions separately, which enabled us to test the discriminant validity. We employed maximum likelihood (ML) estimation procedures, because the data did not strongly violate multivariate normality assumptions (McDonald & Ho, 2002). Following common practice (Hu & Bentler, 1999), we used multiple indicators to assess model fit, namely, normed chi-square ( $\chi^2/\text{d.f.}$ ), root mean square error of approximation (RMSEA), standardized root mean square residual (SRMR), non-normed fit index (NNFI), and comparative fit index (CFI).

We then tested response strategy measurement and construct invariance across countries. Measurement invariance pertains to the psychometric properties of the measurement scales and includes configural invariance, metric invariance, and scalar invariance. Scalar invariance is a prerequisite for interpreting construct differences (Cheung & Rensvold, 2002; Steenkamp & Baumgartner, 1998), which indicate between-group differences in latent means. However, full scalar invariance is not necessary for the further tests of construct invariance to be meaningful, provided at least one item is invariant (i.e., partial invariance) (Byrne, Shavelson, & Muthen, 1989). Considering the goals of our study and our hypotheses, we did not require higher levels of invariance (Steenkamp & Baumgartner, 1998). Latent mean invariance was not required, because we expected and hypothesized cross-cultural differences in the use of response strategy preference. In addition, factor variance and covariance invariance were not required, because we only hypothesized the same ordering of the response strategies around the circumplex structure, not the same exact position.

To evaluate measurement and construct invariance, we used multigroup structural equation models (AMOS 16.0), performed mean and covariance structure (MACS) analyses, and considered group comparisons across the four countries. The MACS analysis involved four nested models that corresponded to the different levels of invariance across groups (e.g., Cheung

& Rensvold, 2002). In addition to the overall fit indices, we used two comparative fit indices to evaluate the difference between nested models. First, we used the chi-square difference test ( $\Delta\chi^2$ ). Second, as recommended by Cheung and Rensvold (2002), we examined changes in CFI ( $\Delta\text{CFI}$ ), which is less affected by sample size. An absolute value of  $\Delta\text{CFI}$  less than or equal to  $|\text{.01}|$  would indicate that the invariance hypothesis cannot be rejected.

To examine the circumplex structure of the response strategies, we first assessed the two-dimensional structure underlying the typology. That is, we examined a two-factorial bipolar model (active–passive and constructive–destructive) by estimating a second-order CFA model, with the response strategies as first-order constructs and constraining the second-order constructs to be orthogonal. Then we compared this simple, two-dimensional model with a second model in which we allowed the first-order response strategies to load on both second-order constructs to model interstitial strategies. To support a circumplex structure, the second model with cross-loadings should have better fit than the baseline model.<sup>1</sup>

We also used Browne's (1992) circular stochastic modeling (CIRCUM) to test the circular component of the hypothesized structure. A structural equation modeling (SEM) software based on Fourier series correlation functions (Browne, 1992), CIRCUM was designed specifically for circumplex models (see also Fabrigar et al., 1997). We specified a three-component model ( $m = 3$ ) (Browne, 1992), because additional free parameters did not improve model fit. Similar to other SEM programs, CIRCUM yields goodness-of-fit indices, such as RMSEA, which provide a test of the degree to which the model corresponds to a circular representation of the data (Fabrigar et al., 1997). Exit arbitrarily served as the reference variable, such that we estimated the location of the other response strategies relative to it. We placed constraints on the communalities (i.e.,

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<sup>1</sup> We thank an anonymous reviewer for suggesting this procedure.



distances to the circle center set to be equal) to evaluate the positions of the response strategies on the circumference. When we relaxed this constraint, model fit did not improve. While controlling for scenario, gender, age, problem severity, and social desirability bias, we entered the  $7 \times 7$  partial correlation matrices from the response strategy mean scores into CIRCUM.

To examine the nomological validity of the circumplex structure, we correlated the response strategies with an overall satisfaction measure. On the basis of the circumplex structure, the correlations should follow a circular path (i.e., sinusoidal curve). To test the circular pattern with respect to overall satisfaction, we fitted a sinusoidal regression model (Gurtman, 1992). A high  $R^2$  provides support for a circumplex structure.

Our third objective was to examine cross-cultural differences in response strategy preferences, so we examined the effect of individualism and masculinity on the seven response strategies. Because the response strategies were interrelated, we manipulated the scenario variables, and we used covariates to control for confounding effects, a MANCOVA was the most appropriate method (Huberty & Morris, 1989). We used Wilks' lambda to assess the significance of the MANCOVA model. We ran post-hoc one-way ANOVAs and  $t$ -tests with Bonferroni adjustment to control for Type-I errors to test the hypotheses and interpret the effects of the cultural dimensions. In this analysis, we used the average scores for each response strategy as dependent variables and the scenarios and dummy variables for individualism and masculinity as the fixed factors. Gender, age, problem severity, and social desirability were entered in the analysis as covariates. We also included the interaction effects between the two cultural dimensions and these dimensions and the scenarios.

## RESULTS

### *Psychometric Characteristics of the Response Strategy Scales (Hypothesis 1)*

We first subjected 35 response strategy items to an EFA in each country and computed the

Cronbach's alpha for each response strategy. Consistent with our expectations, seven factors emerged with acceptable construct reliability. We then subjected items with factor loadings greater than .50 in each culture and no cross-loadings (21 items) to separate CFAs, as well as a pooled sample. The error variances were all positive and did not significantly differ from 0; no correlations were greater than 1, and standard errors were not too large (Cheung & Rensvold, 2002). The country models possessed good fit (see Appendix B); the normed chi-square values were 1.50, 1.53, 1.98, and 1.75 for the Netherlands, Switzerland, Turkey, and Japan, respectively. In addition, other goodness-of-fit indices suggested acceptable fit: the RMSEA values ranged from .039 [90% confidence interval (CI): .028, .048] for the Netherlands to .059 [.050, .069] for Turkey, below the cut-off value. For the Netherlands, the other indices also suggested a good fit with the statistics, including .049 (SRMR), .96 (NNFI), and .97 (CFI); for Switzerland, these values were .052 (SRMR), .95 (NNFI), and .96 (CFI); for Turkey, they were .059 (SRMR), .90 (NNFI), and .92 (CFI); and for Japan, they were .066 (SRMR), .93 (NNFI), and .95 (CFI). The Turkish NNFI and CFI thus were slightly below the expected values. The model with the pooled sample ( $n = 1,129$ ) also produced good fit indices, with a normed chi-square value of 2.65 and fit index values of .038 (RMSEA) [.034, .043], .037 (SRMR), .96 (NNFI), and .97 (CFI).

To assess convergent validity, we examined the factor loadings, which exceeded the .50 threshold, ranging from .56 to .89 in the Dutch sample, .50 to .88 in the Swiss sample, .55 to .88 in the Turkish sample, and .50 to .87 in the Japanese sample. The Cronbach's alphas and composite reliability values were greater than .70, with a few exceptions that still remained above .60 (see Appendix C). The average variances extracted were slightly below their expected values (.33–.73), but the square roots ranged from .57 to .85, higher than any of their respective pairwise correlations, with one exception (patience and neglect in the Japanese sample).

We examined the measurement equivalence of the response strategies across cultures to test

Hypothesis 1. In Appendix B, we provide the overall fit indices for each model, as well as comparative fit indices between nested models. Regarding configural invariance, all seven response strategy subscales were invariant and unidimensional across samples. The fit indices of unconstrained Model 1 were good, with only the CFI slightly below .95. Regarding metric invariance, the fit indexes of Model 2a were below the fit indexes of Model 1 ( $\Delta\chi^2_{[42]} = 72.0, p = .003, \Delta\text{CFI} = .003$ ), which suggested partial metric invariance. Therefore, we estimated Model 2b, in which we released four factor loadings. The fit indexes of Model 2b were as good as those of the unconstrained model ( $\Delta\chi^2_{[38]} = 47.8, p = .13, \Delta\text{CFI} = .001$ ), in support of partial metric invariance. Each item loaded on its relevant response strategy at approximately equal strength across the four countries. Regarding scalar invariance, the overall fit indices were still acceptable, but the comparative fit indices indicated rejecting the full scalar invariance hypothesis ( $\Delta\chi^2_{[42]} = 390.6, p = .000, \Delta\text{CFI} = .038$ ). The modification indices revealed that 10 items (including the constraints released in Model 2b) were not fully scalar invariant, because their intercepts were not equal across countries. After we released these equality constraints, the overall fit indices of Model 3b improved, and the comparative fit indices were not statistically significant ( $\Delta\chi^2_{[20]} = 22.3, p = .32, \Delta\text{CFI} = .000$ ), which supported a revised hypothesis of partial scalar invariance.

To assess whether the 10 non-invariant items could have substantial effects on further analysis, we conducted differential item functioning (DIF) analysis with MACS (Chan, 2000; Ferrando, 1996). DIF analysis allows us to distinguish between nonuniform and uniform DIF items. Whereas, nonuniform DIF items pertain to extent to which the item discriminates between respondents with high scores and those with low scores on their respective response strategies, this is when the slope and intercept are different, uniform DIF items pertain to extent to which the attractiveness of an item differs across countries, this is when only the intercept is different. The results of Model 3b indicated four nonuniform DIF items—Op3, Agr4, Cre1, and Con1 (The

items are shown in Appendix A) and six uniform DIF items—Exit2, Op5, Cre2, Con5, Neg1, and Neg2. To decide if these ten DIF items can be retained for further analysis, we assessed whether they had substantial effect on the response strategy's mean scores (Chan, 2000). To this end, we calculated the mean score on each response strategy, with and without removing DIF items, for each country and compared them based on the standardized mean difference ( $d$ ). The difference in  $d$  between two countries yields an index of the practical significance of the DIF (Chan, 2000). The average pairwise  $d$  difference was .03 for exit, .07 for opportunism, .07 for aggressive voice, .02 for creative voice, .17 for considerate voice, and .03 for neglect. Considering that all except one of the differences in  $d$  were lower than .10 (Robert, Lee, & Chan, 2006), the practical significance of DIF is inconsequential at the scale-level of mean scores (Chan, 2000).

*Circular Representation: CIRCUM Analysis (Hypothesis 2)*

To rule out a two-dimensional simple structure of response strategies, we assessed a second-order, two-factorial bipolar model. The results indicated a relatively poor fit compared with an alternative model with cross-loadings between the response strategies. The CFI indexes improved significantly in each country: .92 to .97 for the Dutch sample ( $\Delta$ CFI = .05); .92 to .96 for the Swiss sample ( $\Delta$ CFI = .04); .89 to .91 for the Turkish sample ( $\Delta$ CFI = .02); and .90 to .94 for the Japanese sample ( $\Delta$ CFI = .04). That is, response strategies appeared interrelated and organized in a circular structure.

As in Figure 1, the CIRCUM analyses with the seven response strategies yielded RMSEAs of .001 [90% CI: .000, .006] for the Dutch, .088 [90% CI: .054, .123] for the Swiss, .081 [90% CI: .049, .116] for the Turkish, and .178 [90% CI: .148, .211] for the Japanese sample—that is, an acceptable level of fit for the Dutch sample only. The Swiss, Turkish, and Japanese correlation matrices indicated that the deviation from the circumference of the circle resulted from opportunism. Additional CIRCUM analyses of the Swiss, Turkish, and Japanese data without

opportunism improved fit to a satisfactory level with RMSEA indices of .000 [90% CI: .000, .022] for the Swiss sample, .064 [90% CI: .009, .113] for the Turkish sample, and .070 [90% CI: .018, .119] for the Japanese sample. The estimated item communality indices ranged from .73 (Dutch) to .90 (Japanese), indicating a low level of measurement error.

[Insert Figure 1 about here]

The results from the CIRCUM analyses thereby showed that the ordering of response strategies around the circle was the same in the four countries, with one exception: In the Swiss, Turkish, and Japanese samples, opportunism deviated from the circumplex structure. Furthermore, based on the 95% CI around the response strategy point estimates of polar angles, we determined that only one of the polar positions differed between countries. The Japanese respondents perceived creative voice as a more active strategy than did respondents in the other samples. These results provided support for Hypothesis 2 for six of the seven response strategies.

To assess the external validity of the circumplex structure of these six response strategies, we correlated each response strategy with an overall satisfaction scale ( $\alpha = .79$ ). The correlations appear in Table 1. A sinusoidal pattern of correlations indicates that the structure of the response strategy is circumplex (Schwartz, 1992). Thus, we fitted a sinusoidal regression model, in which the correlations were the dependent variable and the polar angles from CIRCUM represented the independent variables (Gurtman, 1992). For each country, the regression models resulted in high and significant  $R^2$  (.77 for the Netherlands, .44 for Switzerland, .87 for Turkey, and .76 for Japan), in support of the circular structure of the response strategies. In Switzerland, the lower  $R^2$  was caused by the relatively close position of creative and considerate voices in this country.

[Insert Table 1 about here]

### *Cross-Cultural Differences in Response Strategy Preference (Hypothesis 3)*

We tested for differences in preferences for the six response strategies with a circumplex

structure across cultures by conducting a MANCOVA. The omnibus MANCOVA test indicated significant effects for the predictors and covariates. Specifically, the results revealed significant Wilks' lambdas for individualism ( $\Lambda = .94, F_{[6, 1074]} = 11.33, p < .001, \eta_p^2 = .060$ ), masculinity ( $\Lambda = .98, F_{[6, 1074]} = 4.11, p < .001, \eta_p^2 = .022$ ), the interaction between individualism and masculinity ( $\Lambda = .94, F_{[6, 1074]} = 11.39, p < .001, \eta_p^2 = .060$ ), and scenario ( $\Lambda = .71, F_{[94, 5993]} = 4.56, p < .001, \eta_p^2 = .056$ ), as well as for the problem severity ( $\Lambda = .98, F_{[6, 1074]} = 2.95, p < .01, \eta_p^2 = .016$ ) and social desirability ( $\Lambda = .98, F_{[6, 1074]} = 3.00, p < .01, \eta_p^2 = .016$ ) covariates. The two-way interaction between the scenarios and individualism was not statistically significant ( $\Lambda = .93, F_{[84, 5993]} = .98, p > .05, \eta_p^2 = .013$ ), nor was the interaction with masculinity ( $\Lambda = .91, F_{[84, 5993]} = 1.20, p > .05, \eta_p^2 = .015$ ). The direct effects of gender ( $\Lambda = .99, F_{[6, 1074]} = .54, p > .05, \eta_p^2 = .003$ ) and age ( $\Lambda = .99, F_{[6, 1074]} = 1.56, p > .05, \eta_p^2 = .009$ ) were not significant. The  $F$ -values of the corrected model, which reflected variations in the response strategies attributable to predictors and covariates, indicated significant results for all six response strategies (Table 2).

[Insert Table 2 about here]

There were significant differences between individualistic and collectivistic cultures for the six strategies: exit ( $F_{[1, 1079]} = 20.80, p < .001, \eta_p^2 = .019$ ), aggressive ( $F_{[1, 1079]} = 4.92, p < .05, \eta_p^2 = .005$ ), creative ( $F_{[1, 1079]} = 14.23, p < .001, \eta_p^2 = .013$ ), considerate voices ( $F_{[1, 1079]} = 22.78, p < .001, \eta_p^2 = .021$ ), patience ( $F_{[1, 1079]} = 40.98, p < .001, \eta_p^2 = .037$ ), and neglect ( $F_{[1, 1079]} = 13.89, p < .001, \eta_p^2 = .013$ ). There were also significant differences between masculine and feminine cultures for two strategies: aggressive voice ( $F_{[1, 1079]} = 5.33, p < .05, \eta_p^2 = .005$ ), and neglect ( $F_{[1, 1079]} = 5.00, p < .05, \eta_p^2 = .005$ ). To interpret these findings, we conducted post-hoc group comparisons. Their results, presented in the second panel of Table 2, showed that respondents from individualistic cultures were more likely to prefer creative ( $\Delta \bar{x} = .22, p < .001$ )

and considerate ( $\Delta \bar{x} = .28, p < .001$ ) voices and less likely to select exit ( $\Delta \bar{x} = -.35, p < .001$ ), aggressive voice ( $\Delta \bar{x} = -.14, p < .05$ ), patience ( $\Delta \bar{x} = -.39, p < .001$ ), and neglect ( $\Delta \bar{x} = -.23, p < .001$ ) than were respondents from collectivistic cultures. These results provided support for Hypothesis 3a.

In terms of masculinity, the post-hoc results showed, in line with Hypothesis 3b, that respondents from masculine cultures were less likely to prefer neglect ( $\Delta \bar{x} = -.14, p < .05$ ) and marginally more likely to prefer exit ( $\Delta \bar{x} = .14, p < .10$ ) compared with respondents from feminine cultures. Contrary to expectations, respondents from masculine cultures were less likely to prefer aggressive voice ( $\Delta \bar{x} = -.15, p < .05$ ). The differences for creative ( $\Delta \bar{x} = .05, p > .05$ ) and considerate ( $\Delta \bar{x} = -.03, p > .05$ ) voices and patience ( $\Delta \bar{x} = .00, p > .05$ ) were not significant. Overall, these results provided mixed support for Hypothesis 3b.

Although not hypothesized, the interaction between individualism and masculinity was significant for exit ( $F_{[1, 1079]} = 18.48, p < .001, \eta_p^2 = .017$ ), aggressive voice ( $F_{[1, 1079]} = 18.61, p < .001, \eta_p^2 = .017$ ), and neglect ( $F_{[1, 1079]} = 11.18, p < .001, \eta_p^2 = .010$ ). There was no significant interaction effect for creative or considerate voices and patience. The post-hoc results (see the country comparisons in Table 2) between individualism and masculinity showed that respondents from Japan (collectivistic and masculine) preferred the exit strategy more than respondents from the other countries and that respondents from Turkey (collectivistic and feminine) preferred neglect more than respondents from the other countries. In addition, respondents from Switzerland were least likely to choose aggressive voice.

Concerning the control variables, the results revealed that across countries the perception of the severity of the situation significantly affected exit ( $F_{[1, 1079]} = 7.22, p < .05, \eta_p^2 = .004$ ), aggressive voice ( $F_{[1, 1079]} = 4.14, p < .05, \eta_p^2 = .004$ ), and patience ( $F_{[1, 1079]} = 6.31, p < .05, \eta_p^2 = .004$ ).

= .006). Respondents with high scores on the problem severity scale tended to prefer exit and aggressive voice, but were less inclined to be patient compared to respondents with low problem severity scores. Social desirability also had a significant effect on the likelihood of several response strategies across countries: creative voice ( $F_{[1, 1079]} = 4.20, p < .05, \eta_p^2 = .004$ ) and considerate voice ( $F_{[1, 1079]} = 14.37, p < .001, \eta_p^2 = .015$ ). It exhibited a marginal effect on exit ( $F_{[1, 1079]} = 5.70, p < .10, \eta_p^2 = .003$ ). Respondents with high scores on the social desirability scale tended not to choose exit but instead creative and considerate voices, more so than respondents with low social desirability scores.

## DISCUSSION

We examined the cross-cultural validity of an extended response strategy typology. The scenario-based experiment across countries provided a better understanding of how response strategies may be organized in people's cognitive schemata across cultures and their preferences for these strategies.

### *Interpretation of the Results*

In line with previous studies (Thomas & Au, 2002; Thomas & Pekerti, 2003), we found support for the EVLN response strategies, but by validating an extended EVLN typology, we also offered a finer-grained range of responses from which people may choose to deal with adverse situations. We added opportunism and divided voice to the aggressive, creative, and considerate forms. Because we confirmed the psychometric properties of these new strategies, we helped overcome some limitations of previous research that reported low reliability and internal validity.

Our study also extended previous research (Hagedoorn et al., 1999; Liljegren et al., 2008) by demonstrating that the response strategies are organized in a circumplex structure across the four countries we investigated. The findings indicated that the seven response strategies appeared



in a circumplex organization in the Dutch sample, but opportunism deviated from the structure in Switzerland, Turkey, and Japan. A possible explanation of this finding could be the presence of a third moral dimension, suggesting that whereas the other six strategies were perceived as neutral in terms of their moral content, opportunism was not. To explore this possibility, we conducted multi-dimensional scaling (MDS) analysis per country. The results indicated that for Switzerland, Turkey, and Japan, a three-dimensional structure has better fit (i.e., higher  $R^2$  and lower stress value) compared with a two-dimensional structure (results available on request), providing some evidence of the existence of a third moral dimension. However, we found that in the Netherlands opportunism is part of the two-dimensional structure. This difference means that the structural location of opportunism varies across countries, in the sense that in some countries opportunism may be more morally wrong than in other countries (Chen et al., 2002). For example, in countries with low uncertainty avoidance, people are more tolerant of transgressions of moral norms, such as opportunism, whereas in countries with higher uncertainty avoidance scores, such transgressions are considered morally wrong (Hofstede, 2001). This could explain why in Switzerland, Turkey, and Japan, which score higher than the Netherlands on uncertainty avoidance, the moral dimension is present. However, as opportunism is the only morally charged response strategy we measured, we could not formally test the presence of this third dimension.

The order of the six response strategies around the circle was consistent across the four countries, though their absolute locations differed slightly. In Japan, creative voice appeared more active than in the other countries. In this collectivistic and masculine country, creativity may be perceived as less constructive, because it could disturb social harmony. Furthermore, whereas creative and considerate voices were clearly distinct response strategies in the Dutch and Japanese samples, their locations were hardly distinguishable in the Swiss and Turkish samples. Considerate and creative responses appeared to overlap and share the same meaning, perhaps

because people in these countries believed that developing innovative solutions required taking partners' opinions into account. Despite these minor differences, the combined findings provided support for the cross-cultural validity of a circumplex model of response strategies.

Although the content and internal structure of six response strategies were equivalent across the four countries, our results indicated cultural differences in respondents' preferences. We found that individualism was associated with the six response strategies in the expected directions and that masculinity was associated with exit and neglect. These findings were in line with results reported by Lee and Jablin (1992), who noted that in Japan, people use less voice than do people in the United States, as well as the results from Vigoda (2001), who reported that people in individualistic cultures are less patient than people in collectivistic cultures. Consistent with Morris and colleagues (1998), we also found that people in individualistic cultures are more likely to prefer aggressive voice than are people in collectivistic cultures.

However, the effect of masculinity on aggressive voice was in the opposite direction of our expectations. That is, people from feminine cultures were more likely to prefer aggressive voice than people from masculine cultures. This unexpected finding is difficult to explain but may be due to the business situation described in the scenarios and the use of students as respondents. In today's competitive world, more aggressive responses may be expected from managers in adverse alliance relationships, especially in more feminine cultures in which such behavior is not natural. Alternatively, this result may have been induced by confounding effects for which we did not control. People from countries with a relative lower gross domestic product (GDP) tend to be more aggressive (Hofstede, 2001). The four countries in our sample had different GDPs—whereas the Netherlands, Switzerland, and Japan have relatively high GDPs, Turkey has a low GDP—and this distinction may have influenced our results. Additional research should control for GDP, or other possible confounding factors, directly or through country selection.

Some other results deserve further comment as well. First, the two cultural dimensions interact to influence response strategy preferences. The effect of individualism on exit and neglect is reinforced by masculinity. However, in the case of aggressive voice, the two cultural dimensions cancel each other. This finding may be attributed to the possibility of a confounding effect of other cultural dimensions (i.e., power distance and uncertainty avoidance), suggesting that research should examine the interacting effect of cultural dimensions on response strategies. Second, as expected, the scenarios had a direct effect on response strategy preferences, for which we controlled. However, the interaction between country and scenario was not significant, which indicated that the adverse situations described in the scenarios provoked similar responses across cultures. Third, as expected, social desirability influenced response strategy preference. However, in contrast with some studies (see Johnson & Van de Vijver, 2003) that have indicated people in collectivistic cultures are more likely to respond in a socially desirable way, we did not find a significant interaction between country and social desirability. Our measure tapped two different aspects of social desirability: impression management and self-deceptive enhancement. Lalwani, Shrum, and Chiu (2009) found that collectivism related more to impression management and individualism more to self-deceptive enhancement. Thus, our non-significant result may have been caused by a confounding effect.

### *Theoretical Implications*

These results advance response strategy theory by demonstrating that the content and structure of six of the seven responses to a dissatisfying situation are nearly universally organized in a circumplex fashion. A circumplex structure possesses distinct advantages over the two-dimensional EVLN typology. First, a circumplex structure enables a systematic organization of response strategies according to their degree of compatibility and incompatibility (Fabrigar et al., 1997; Gurtman, 1992; Schwartz, 1992). This characteristic reflects how compatible strategies are

likely to be perceived as close alternatives in a particular adverse situation, whereas incompatible strategies are not likely to be considered simultaneously. Second, because it is continuous, a circumplex structure can integrate new responses. We added aggressive and creative voices to the four EVLN strategies, however, other new strategies could be added. For example, our results indicated a negative correlation between considerate voice and patience, which suggests that unidentified passive responses may exist between them in people's cognitive schemata. Further research may investigate alternative strategies and extend the proposed typology.

Furthermore, in comparison to a two-dimensional representation, a circumplex structure provides a more systematic framework for theoretical development on response strategies. It not only makes specific assumptions about the interrelationships between response strategies but also implies nonlinear relationships between response strategies and external variables. Unlike previous EVLN studies, which have hypothesized separate linear relationships with each response strategy, the circumplex structure stipulates that when an external variable relates to a response strategy, it also relates to the other strategies in a circular way. That is, the association with an external variable, such as overall satisfaction, first decreases from the most positively (or least negatively) associated response strategy and then increases again in the progression around the circular structure, exhibiting a sinusoidal curve. Thus, response strategies should be conceptualized as an integrated system rather than as a collection of independent strategies when hypothesizing relationships with external variables.

We also contributed to response strategy theory by demonstrating that preferences for response strategies vary across cultures. Response strategy research proposed an investment model (e.g., Rusbult et al., 1988), in which satisfaction with exchange outcomes, investment magnitude, and availability of alternatives influence response strategy preferences. However, the results suggested that in an international context, people likely respond similarly to adverse

situations, though response strategy preferences, in addition to the adverse situation, depend on culture. People from more collectivistic cultures prefer passive responses more than do people from more individualistic cultures, whereas people from more individualistic cultures prefer active–constructive responses. People from more feminine cultures tend to prefer destructive responses, such as opportunism, aggressive voice, and neglect, compared with people from more masculine cultures. Studies drawing on the investment model to examine responses in international exchange relationships should consider these differences.

### *Limitations and Conclusions*

Our study is limited in several respects. First, our sample consisted of respondents from four cultural groups, which varied in terms of individualism and masculinity. However, to some extent, they also varied along the other two cultural dimensions, power distance and uncertainty avoidance. These differences may have induced confounding effects for which we did not completely control. Therefore, the attribution of cross-cultural difference in response preferences should be considered with caution. A broader sample of cultures would help disentangle the effect of the different cultural dimensions. Second, we examined cross-cultural differences without measuring cultural values directly. However, Thomas and Au (2002) found that people with an orientation toward horizontal individualism (i.e., individual-level construct) are more prone to active response strategies, which offers evidence of intracountry differences in response strategies. Therefore, measuring cultural values at the individual level would be necessary to understand inter- as well as intracountry differences. Third, we controlled for individual-level social desirability bias by including the MC2 social desirability scale in our analyses. However, we did not estimate the potential biasing effect of acquiescence and extreme response style, because our questionnaire did not contain additional, independent items that could be used to measure such biases adequately. Although the partial scalar equivalence of our measures

provided some evidence that these biases should not be too severe in our data, further research should use more sophisticated methods to deal with acquiescence and extreme response style. Fourth, we also conducted an item response bias analysis to assess the effect of the noninvariant items, which was shown not to be of practical significance. However as argued by Chan (2000), it is important to understand the reasons for the differences in item functioning. Translation could be one of these reasons and we examined the DIF items for possible translation errors. Indeed, small translation differences might have caused a bias.. For the items with uniform DIF, translation does not seem to be the issue. As other factors, such as partial cultural representation of items, may caused DIF (Robert et al., 2006), further qualitative research should investigate the causes of these items' noninvariance. Fifth, to test the hypotheses, we used a scenario-based experiment in which we examined respondents' behavioral intentions. The controlled setting of the experiment enabled us to disentangle the relationships among culture, exchange conditions, and response strategies, but it also inhibited a generalization of results. Furthermore, because behavioral intentions do not always translate into behavior, additional research targeting practicing managers should test the extended response strategy typology with behavioral data.

This study advances cross-cultural psychology research by providing a better understanding of how people respond to adverse situations in exchange relationships in different countries. It validates a response strategy typology of six responses and shows that these responses consistently organize in a circumplex fashion across four countries. It also provides evidence that when they face similar adverse situations, people from different cultures likely prefer different response strategies. Overall, our results offer support for a nearly universal circumplex model of response strategies and show that response strategy preferences vary across cultures.

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**Table 1****Sinusoidal Correlation Patterns between Response Strategies and Overall Satisfaction**

<b>Country</b>	<b>Exit</b>	<b>Aggressive Voice</b>	<b>Creative Voice</b>	<b>Considerate Voice</b>	<b>Patience</b>	<b>Neglect</b>
The Netherlands ( <i>n</i> = 334)	-.44***	-.14**	.10 <sup>†</sup>	.26***	.22***	-.07
Switzerland ( <i>n</i> = 255)	-.40***	-.01	.14*	.12 <sup>†</sup>	.37***	.05
Turkey ( <i>n</i> = 278)	-.29***	-.03	.19**	.28***	.08	-.13*
Japan ( <i>n</i> = 262)	-.35***	-.10 <sup>†</sup>	-.02	.20***	.23***	.05

Notes: Correlations between response strategy scores and a measure of overall satisfaction

<sup>†</sup>  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

**Table 2**  
**MANCOVA Results**

		Exit	Aggressive Voice	Creative Voice	Considerate Voice	Patience	Neglect	Wilks $\Lambda$ ( <i>F</i> -value)
Individualism	<i>F</i>	<b>20.80</b> <sup>*** a</sup>	<b>4.92</b> *	<b>14.23</b> <sup>***</sup>	<b>22.78</b> <sup>***</sup>	<b>40.98</b> <sup>***</sup>	<b>13.89</b> <sup>***</sup>	<b>.94</b> <sup>*** b</sup> (11.33)
Masculinity	<i>F</i>	3.34 <sup>†</sup>	<b>5.33</b> *	.59	.35	.00	<b>5.00</b> *	<b>.98</b> <sup>***</sup> (4.11)
Individualism $\times$ masculinity	<i>F</i>	<b>18.48</b> <sup>***</sup>	<b>18.61</b> <sup>***</sup>	.23	1.60	.06	<b>11.18</b> <sup>***</sup>	<b>.94</b> <sup>***</sup> (11.39)
Scenario	<i>F</i>	<b>18.40</b> <sup>***</sup>	<b>1.80</b> *	<b>3.47</b> <sup>***</sup>	<b>7.34</b> <sup>***</sup>	<b>3.32</b> <sup>**</sup>	<b>2.59</b> <sup>***</sup>	<b>.71</b> <sup>***</sup> (4.56)
Individualism $\times$ scenario	<i>F</i>	.83	.52	.89	1.27	.65	.79	.93 (.98)
Masculinity $\times$ scenario	<i>F</i>	1.09	1.69 <sup>†</sup>	.81	1.16	.77	1.61 <sup>†</sup>	.91 (1.20)
Gender	<i>F</i>	.36	.52	.15	1.00	.13	.01	.99 (.54)
Age	<i>F</i>	.16	.19	2.56	4.44*	.61	.13	.99 (1.56)
Problem severity	<i>F</i>	<b>4.62</b> *	<b>3.84</b> *	1.23	.28	<b>6.32</b> *	.00	<b>.98</b> <sup>**</sup> (2.95)
Social desirability	<i>F</i>	3.65 <sup>†</sup>	1.07	<b>4.62</b> *	<b>16.26</b> <sup>***</sup>	.62	2.08	<b>.98</b> <sup>**</sup> (3.00)
<i>Corrected model F-value</i>		<b>6.84</b> <sup>***</sup>	<b>1.84</b> <sup>***</sup>	<b>2.13</b> <sup>***</sup>	<b>3.92</b> <sup>***</sup>	<b>2.68</b> <sup>***</sup>	<b>2.08</b> <sup>***</sup>	
<i>Estimated marginal means</i>								
Individualism		3.00	4.31	5.54	5.46	1.93	2.17	
Collectivism		3.36	4.45	5.32	5.18	2.33	2.41	
Masculinity		3.25	4.31	5.45	5.30	2.13	2.22	
Femininity		3.11	4.46	5.41	5.34	2.13	2.36	
Individualism/femininity (NL)		3.10	4.53	5.53	5.51	1.92	2.14	
Individualism/masculinity (SW)		2.91	4.10	5.55	5.41	1.94	2.21	
Collectivism/femininity (TU)		3.12	4.39	5.28	5.16	2.33	2.58	
Collectivism/masculinity (JA)		3.59	4.52	5.35	5.20	2.32	2.23	
<i>Country comparison</i>		JA > (TU, NL, SW)	(NL, JA, TU) > SW	(NL, SW) > (JA, TU)	(NL, SW) > (JA, TU)	(JA, TU) > (SW, NL)	TU > (JA, SW, NL)	

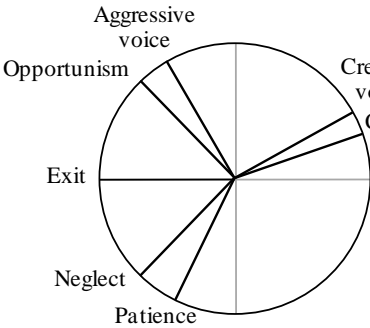
Notes:  $n = 1,129$ ; NL = Netherlands; SW = Switzerland; TU = Turkey; JA = Japan; <sup>†</sup>  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

<sup>a</sup> The *F*-values in the rows list the univariate effects on the dependent variables.

<sup>b</sup> The multivariate column lists the multivariate effect of each independent variable on the seven response strategies.

**Figure 1**  
**CIRCUM Polar Angles and Fit Indices**

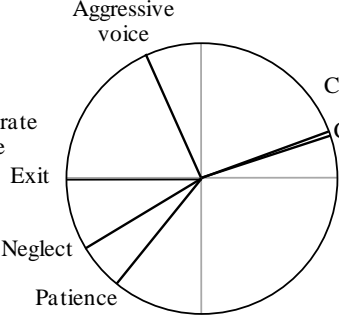
**The Netherlands**



Communalities: .73 [.69, .76]  
Minimum Common Score  
Correlation at 180°: -.836

**Fit indices**  
*n* = 334  
*df.* = 11  
 $\chi^2$  = 11.58  
*F*<sub>0</sub> = .002  
RMSEA = .001  
[90% CA: .000, .060]

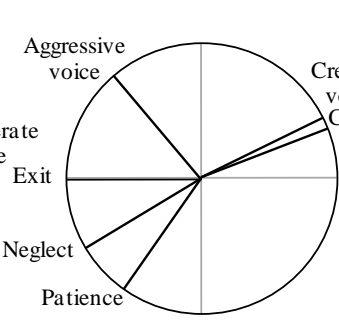
**Switzerland**



Communalities: .77 [.73, .81]  
Minimum Common Score  
Correlation at 180°: -.874

**Fit indices**  
*n* = 255  
*df.* = 6  
 $\chi^2$  = 3.72  
*F*<sub>0</sub> = .000  
RMSEA = .000  
[90% CA: .000, .022]

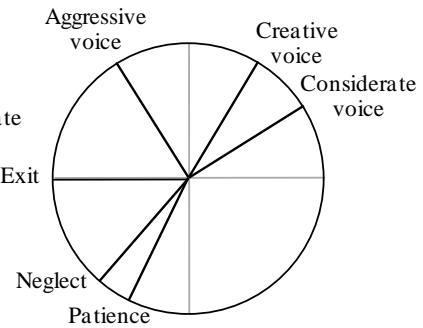
**Turkey**



Communalities: .84 [.81, .87]  
Minimum Common Score  
Correlation at 180°: -.770

**Fit indices**  
*n* = 278  
*df.* = 6  
 $\chi^2$  = 12.86  
*F*<sub>0</sub> = .025  
RMSEA = .064  
[90% CA: .009, .113]

**Japan**



Communalities: .90 [.86, .92]  
Minimum Common Score  
Correlation at 180°: -.585

**Fit indices**  
*n* = 262  
*df.* = 6  
 $\chi^2$  = 13.59  
*F*<sub>0</sub> = .029  
RMSEA = .070  
[90% CA: .018, .119]

## Appendix A. Response Strategies, Descriptions, and Sample Items

Response Strategies	Description	Sample Item
Exit	The disinclination to continue the current relationship (Ping, 1993; Rusbult et al., 1982)	Ex1: I will consider ending the alliance with XXX. (*) Ex2: I think that I will probably stop doing business with XXX. Ex3: I am not likely to continue the alliance with XXX. Ex4: I have the intention to exit the XXX alliance. (*) Ex5: I believe that I will terminate the XXX alliance.
Opportunism	Self-interested behavior that is explicitly or implicitly prohibited (Ping, 1993; Wathne & Heide, 2000).	Op1: I will purposefully exaggerate the situation in order to get additional benefits. Op2: I will change the facts slightly in order to get what I need from XXX. (*) Op3: I will deliberately make the situation sound more problematic than it really is to obtain more benefits from the XXX alliance. Op4: In order to improve the situation I will try to escape from certain contractual obligations. (*) Op5: I will withhold important information from XXX to gain additional benefits.
Aggressive voice	A form of voice that consists of efforts to win without consideration for the concerns of the exchange partner (Hagedoorn et al., 1999).	Agr1: I will forcefully push my firm's solution to improve the situation. (*) Agr2: I will use my power to solve situation in a way that suits my firm. (*) Agr3: I will prove in all possible ways to XXX that my firm's solution for the situation is right. Agr4: I will be very persistent with XXX to have them accept my firm's solution to the situation. Agr5: I will strongly advocate my firm's solution to solve the situation with the XXX alliance.
Creative voice	A form of voice that consists of the generation of novel and potentially useful ideas (Zhou & George, 2001).	Cre1: I will adopt a fresh approach to improve the situation. Cre2: I will come up with new ideas to improve the situation with the XXX alliance. Cre3: I will suggest constructive changes to XXX to improve the situation. (*) Cre4: I will search for new and innovative ideas to improve the situation. (*) Cre5: I will propose creative solutions to XXX to improve the situation.
Considerate voice	A form of voice that consists of attempts to solve the situation by considering one's own concerns as well as those of the partner (Ping, 1993).	Con1: I will try to come to an understanding with XXX to solve the situation. Con2: I will work to create a consensus with XXX to solve the situation. (*) Con3: I will approach XXX with a proposition to solve the situation and work it out together. Con4: In collaboration with XXX, I will try to find a solution that is satisfactory to everyone. (*) Con5: I will contact XXX to find an acceptable solution for both partners.
Patience	Abiding relationship issues in silence with the confidence that things will get better (Hagedoorn et al., 1999; Hibbard et al., Leck & Saunders, 1992; Ping, 1993)	Pat1: I trust the situation will solve itself. Pat2: I will not say anything to XXX because I expect the situation to go away by itself. Pat3: Optimistically, I wait for better times. (*) Pat4: I will wait patiently and hope the situation solves itself. Pat5: I expect that soon everything will work out with the XXX alliance. (*)
Neglect	Passively allowing the relationship to deteriorate (Ping, 1993; Rusbult et al., 1982)	Neg1: I do not plan anything extra to solve the situation with the XXX alliance. Neg2: I will not initiate anything to improve the situation with the XXX alliance. Neg3: I will passively let the alliance with XXX end. (*) Neg4: I will not deal with the situation with the XXX alliance. Neg5: I do not intent to invest anymore into the alliance with XXX to solve the situation. (*)

\* Excluded from data analysis.

## Appendix B. Overall Fit Indices of the Measurement Models

Model	$\chi^2$	d.f.	<i>p</i> -value	$\chi^2$ /d.f.	RMSEA [90% CI]	SRMR	NNFI	CFI	$\Delta$ CFI	$\Delta\chi^2$	$\Delta$ d.f.	<i>p</i> -value
<i>Country Models</i>												
The Netherlands ( <i>n</i> = 334)	251.3	168	.000	1.496	.039 [.028, .048]	.049	.959	.967	—	—	—	—
Switzerland ( <i>n</i> = 255)	256.7	168	.000	1.528	.046 [.034, .056]	.052	.948	.959	—	—	—	—
Turkey ( <i>n</i> = 278)*	329.9	167	.000	1.976	.059 [.050, .069]	.059	.904	.924	—	—	—	—
Japan ( <i>n</i> = 262)	293.1	168	.000	1.745	.053 [.043, .063]	.066	.931	.945	—	—	—	—
Pooled sample ( <i>n</i> = 1129)	445.2	168	.000	2.650	.038 [.034, .043]	.037	.961	.968	—	—	—	—
<i>Overall Models (multi-group)</i>												
1. Configural invariance (i.e., without equality constraints)	1131.1	671	.000	1.686	.025 [.022, .027]	.049	.936	.949	—	—	—	—
2a. Full metric invariance (i.e., equal factor loadings)	1203.1	671	.000	1.687	.025 [.022, .027]	.049	.936	.946	.003	72.0	42	.003
2b. Partial metric invariance**	1178.9	709	.000	1.663	.024 [.022, .027]	.049	.939	.948	.001	47.8	38	.133
3a. Full scalar invariance (i.e., equal factor loadings and intercepts)	1569.5	751	.000	2.090	.031 [.029, .033]	.049	.899	.910	.038	390.6	42	.000
3b. Partial scalar invariance***	1201.2	729	.000	1.648	.024 [.022, .026]	.049	.940	.948	.000	22.3	20	.324
4. Latent means invariance (i.e., equal latent means)	1456.6	750	.000	1.942	.029 [.027, .031]	.051	.913	.922	.027	255.4	21	.000

\* A constraint was placed between the error terms of cre5 and neg4, reducing the degrees of freedom to 167.

\*\* The factor loadings of Agr4 (Japan), Con1 (Japan), Cre1 (Japan), and Op3 (Turkey) were not invariant across the four countries and were released.

\*\*\* Consistent with Model2b, we released the intercepts of the items with variant factor loadings. In addition, we released for the four countries Ex2, Op5, and Neg2; Con5 for the Japanese and Turkish samples; Neg1 for the Dutch and Turkish samples, and Cre2 for the Japanese sample.

## Appendix C. Construct Reliability and Partial Correlation Matrices

### A. The Netherlands

Response Strategy	$\alpha$	CR	AVE	1	2	3	4	5	6
1 Exit	.888	.888	.725						
2 Opportunism	.698	.706	.448	.238***					
3 Aggressive voice	.735	.738	.487	.187**	.487***				
4 Creative voice	.805	.822	.613	-.295***	-.035	.043			
5 Considerate voice	.746	.746	.494	-.385***	-.071	-.007	.522***		
6 Patience	.739	.747	.498	.050	.084	-.083	-.229***	-.171**	
7 Neglect	.701	.713	.455	.247***	.136**	.008	-.370***	-.317***	.471***

$n = 334$ .

### B. Switzerland

Response Strategy	$\alpha$	CR	AVE	1	2	3	4	5	6
1 Exit	.886	.888	.726						
2 Opportunism	.715	.737	.492	.132*					
3 Aggressive voice	.724	.729	.475	.089	.417***				
4 Creative voice	.779	.788	.566	-.422***	-.076	.072			
5 Considerate voice	.718	.720	.462	-.465***	-.181**	.021	.591***		
6 Patience	.769	.768	.527	.182**	.153*	-.009	-.324***	-.301***	
7 Neglect	.769	.771	.530	.386**	.345***	.083	-.463***	-.509***	.499***

$n = 255$ .

### C. Turkey

Response Strategy	$\alpha$	CR	AVE	1	2	3	4	5	6
1 Exit	.823	.825	.613						
2 Opportunism	.672	.686	.326	.111 <sup>†</sup>					
3 Aggressive voice	.677	.676	.413	.062	.331***				
4 Creative voice	.780	.807	.589	-.375***	.099	.239***			
5 Considerate voice	.682	.680	.417	-.432***	-.031	.112 <sup>†</sup>	.700***		
6 Patience	.778	.778	.538	.251***	.085	-.084	-.355***	-.293***	
7 Neglect	.711	.706	.445	.486***	.085	-.037	-.565***	-.546***	.587***

$n = 278$ .

### D. Japan

Response Strategy	$\alpha$	CR	AVE	1	2	3	4	5	6
1 Exit	.854	.856	.664						
2 Opportunism	.712	.716	.458	.229***					
3 Aggressive voice	.603	.605	.341	.101	.296***				
4 Creative voice	.845	.852	.659	-.141*	-.251***	.177**			
5 Considerate voice	.700	.707	.454	-.337***	-.244***	.102 <sup>†</sup>	.604***		
6 Patience	.773	.766	.525	.083	.423***	.006	-.425***	-.260***	
7 Neglect	.781	.784	.550	.248***	.410***	-.043	-.473***	-.441***	.733***

$n = 262$ . <sup>†</sup> $p < .10$ ; \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ . s.d. = standard deviation.  $\alpha$  = Cronbach's alpha. CR = composite reliability. AVE = average variance extracted.