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REACTIONS TO PERCEIVED INEQUITY IN U.S. AND DUTCH INTERORGANIZATIONAL RELATIONSHIPS

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In an empirical examination of inequity in interorganizational relationships, we found similarities and differences in Dutch and U.S. automobile dealers' reactions to inequity in their relationships with their automobile suppliers. As predicted by equity theory, both positive and negative inequity have detrimental effects on the reactions of Dutch firms. In contrast, U.S. firms do not react negatively to positive inequity; only negative inequity has deleterious effects.

As firms increasingly rely on strategic alliances, partnerships, and joint ventures (Oliver, 1990), it is important to gain a better understanding of the norms that are operative in interorganizational relationships. This study focuses on one category of relational norms, those that guide the assessment of relationship outcomes, and one specific distributive norm. Interorganizational relationships create value that partners cannot generate independently, but there is tension between maximizing the created value and distributing this value among the partners (Zajac & Olsen, 1993). If one party thinks it is not getting its fair share, it is more likely to be hostile, distrust its partner, and end the relationship. Knowledge of distributional norms is crucial to understanding these reactions. Although management scholars have generally asserted that the equity norm is important to the development of stable, productive interorganizational relationships (Ring & Van de Ven, 1994), an empirical examination of equity theory in these relationships has yet to be conducted. We sought to determine if the degree of inequity between a firm and a domestic partner has an impact on their relationship—specifically, an impact on the firm's attitudes toward that partner.

Equity theory was developed within a specific cultural context, like other interorganizational theories. As cultural standards of acceptable behavior may limit the applicability of the equity norm (Ring & Van de Ven, 1994), we examined interorganizational relationships in both the United States and in the Netherlands, cultures in which reactions to interorganizational inequity are expected to differ.

THEORY

Equity Theory

According to equity theory, a party evaluates an ongoing relationship by assessing its own inputs to the relationship and what it receives in return relative to what the other parties contribute to the relationship and receive in return (Adams, 1965). As "equity is in the eye of the beholder" (Walster, Walster, & Berscheid, 1973: 152), evaluation involves "*perceived* outcomes and inputs rather than 'objective' reality as conceived by a competent impartial observer" (Deutsch, 1985: 12; emphasis in original). A firm experiences equity when it perceives[1] that the outcomes it and its partner receive are proportional to their respective inputs to their relationship. When the outcomes-to-inputs ratios are unequal, inequity exists. The firm perceives *negative inequity* if its own outcome-to-input ratio is less than its partner's; the firm perceives *positive inequity* if its own ratio exceeds that of its partner.

According to equity theory, a firm will react negatively when it perceives any inequity, whether negative or positive (Adams, 1965; Greenberg,

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[1] It is, of course, individuals within a firm who experience and perceive phenomena; for simplicity, however, we refer throughout to the perceptions of firms.

1990). Positive inequity leads to guilt for not pulling one's own weight or for receiving disproportionately great outcomes; negative inequity leads to hostility at being shortchanged or undercompensated. Inequity undermines relationship cohesion and expectations of continuity (Hogg & Abrams, 1988). The greater the inequity, the greater the distress and motivation to restore equity in a relationship or, alternatively, to exit it in favor of one that is more equitable.

Despite the presumption that equity is critical for healthy interorganizational relationships (e.g., Ring & Van de Ven, 1992, 1994), empirical evidence is mixed (Cook & Hegtvedt, 1983). Some researchers have argued that not all parties respond negatively to positive inequity (Alwin, 1987; Hegtvedt, 1990; Huseman, Hatfield, & Miles, 1987). Why is this the case? Although several factors may play a role, we focus on the impact of *national culture,* which has been recognized as an important factor in shaping interorganizational relationships (e.g., Barkema & Vermeulen, 1997; Steensma, Marino, Weaver, & Dickson, 2000).

We examined interorganizational relationships in two countries, the United States and the Netherlands, expecting differences in organizations' reactions to inequity in the two countries. Our expectation was based on Hofstede's (1980) research on national cultures. The United States and the Netherlands are similar on three of the four cultural dimensions Hofstede identified: Both are relatively high in individualism, moderately low in uncertainty avoidance, and moderate in "power distance" (Hofstede, 1980). The United States and the Netherlands differ substantially, however, along the "masculinity" dimension; the United States exhibits a greater competitive achievement orientation, while the Netherlands exhibits a greater compassionate egalitarian orientation. Given these values, we anticipate that commercial interorganizational relationships in the Netherlands will be evaluated primarily by the equity principle and that firms in the Netherlands will tend to respond as predicted by classical equity theory. Dutch firms will have negative reactions to both perceived positive and negative inequity. In contrast, we contend that U.S. firms will tend to respond negatively only to negative inequity. We examine the effects of inequity on hostility and guilt, which are central variables in equity theory, and on trust and relationship continuity, which are key indicators of the health of an interorganizational relationship.

Effects of Negative Inequity

Negative inequity incites hostility in an undercompensated firm, which resents its perceived outcomes being below what they should be. In the Netherlands, undercompensation violates norms held dear—solidarity, service, cooperation, and moral obligation. Negative inequity undermines prediction-based trust, one of the primary mechanisms through which trust is developed in egalitarian cultures (Doney, Cannon, & Mullen, 1998). An undercompensated Dutch firm is likely to seek alternatives and move to end the interorganizational relationship within which the undercompensation has occurred. Similarly, in the United States, the emphasis on competition, achievement, and recognition leads firms facing increasing negative inequity to react with greater hostility and investigation of alternatives. The fact that a firm faces undercompensation may lead it to conclude that the partner does not have the firm's best interests at heart, a conclusion that undermines its trust.

Thus, we hypothesize that both in Dutch interorganizational relationships and in U.S. interorganizational relationships, negative inequity will lead to negative reactions, including hostility, distrust, and lower relationship continuity. Guilt, which plays a central role in positive inequity, should be unaffected by negative inequity.

Hypothesis 1a. In a Dutch interorganizational relationship, as a firm's perceived negative inequity increases, its hostility toward its partner increases.

Hypothesis 1b. In a Dutch interorganizational relationship, as a firm's perceived negative inequity increases, its trust in its partner decreases.

Hypothesis 1c. In a Dutch interorganizational relationship, as a firm's perceived negative inequity increases, its relationship continuity decreases.

Hypothesis 1d. In a Dutch interorganizational relationship, as a firm's perceived negative inequity increases, its guilt regarding its role in the relationship is not affected.

Hypothesis 2a. In a U.S. interorganizational relationship, as a firm's perceived negative inequity increases, its hostility toward its partner increases.

Hypothesis 2b. In a U.S. interorganizational relationship, as a firm's perceived negative inequity increases, its trust in its partner decreases.

Hypothesis 2c. In a U.S. interorganizational relationship, as a firm's perceived negative in-

equity increases, its relationship continuity decreases.

Hypothesis 2d. In a U.S. interorganizational relationship, as a firm's perceived negative inequity increases, its guilt regarding its role in the relationship is not affected.

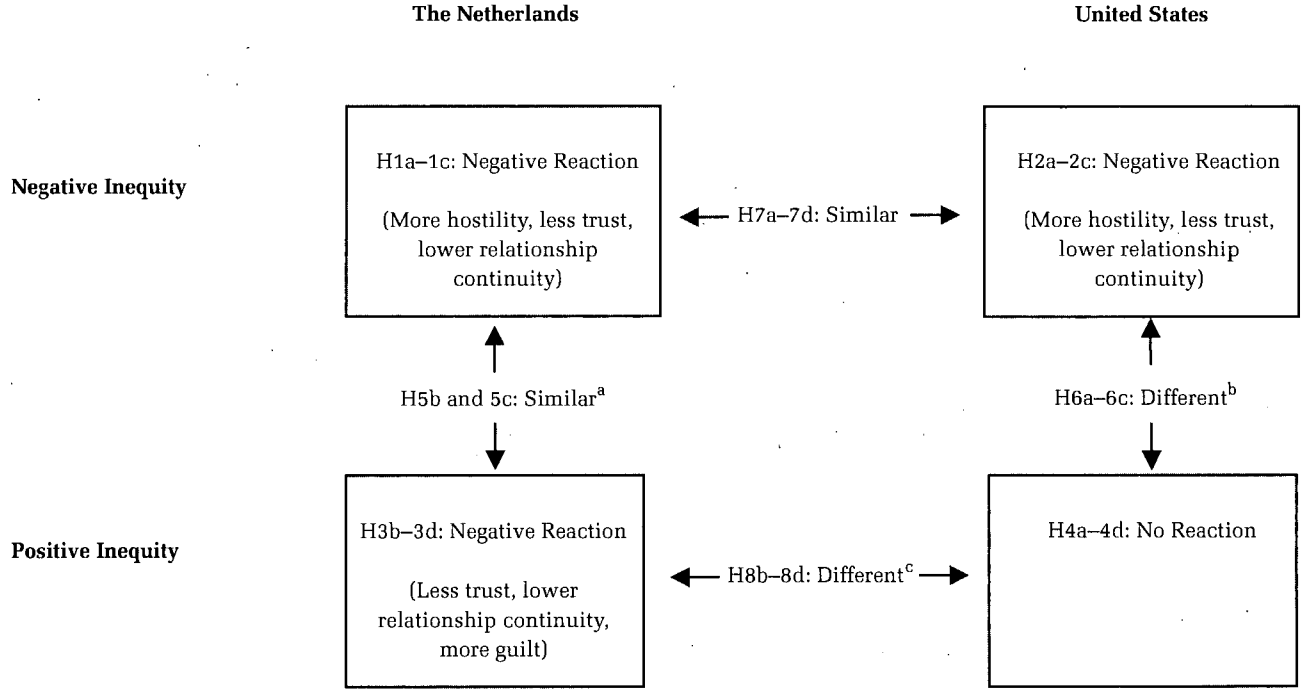
Note that we posit a null effect of negative inequity on guilt in both countries. Although we are aware of the interpretational challenges null effects pose, we offer null-effect hypotheses only to emphasize contrasts with the hypothesized directional effects. Within the context of the pattern of all hypothesized effects, null effects offer some insights. Figure 1 visually depicts our hypotheses.

Effects of Positive Inequity

That a firm will react negatively to undercompensation is not controversial; negative reaction to positive inequity is less intuitive. We submit that in egalitarian societies that highly value cooperation, compassion, consideration of others, social responsibility, and conscious avoidance of trying to be better than others (Hofstede, 1980), firms will prefer negotiation, compromise, and the potential for mutual gains (Steensma et al., 2000). An overcompensated Dutch firm therefore will experience guilt for violating important values by not investing its fair share of inputs into a relationship or by receiving excessive outcomes. The firm also knows that its undercompensated partner is likely to terminate the relationship or reduce its relational input in an attempt to restore equity. On the other hand, if the partner seemingly accepts negative inequity, the firm will suspect that the partner is receiving more rewards than is apparent to the firm. In either event, a Dutch firm with perceived positive inequity will have suspicions about its partner's intentions and doubts about its predictability, undermining both its trust (Doney et al., 1998) and relationship continuity. Hostility, which is posited to be affected by negative inequity, will be unaffected by positive inequity.

We hypothesize that in achievement-oriented cultures such as the United States, firms will not respond negatively to positive inequity. In societies that highly value competition, assertiveness, accomplishment, and conscious striving to be the best (Hofstede, 1980), firms will view the world in terms of winners and losers (Steensma et al., 2000). In contrast to the Dutch, U.S. firms will not express

FIGURE 1
Depiction of Hypotheses



[a] Differences were expected only on hostility and guilt, each of which is affected negatively by only one type of inequity.
[b] Similar (null) effects on guilt were expected.
[c] Similar (null) effects on hostility were expected.

guilt when perceiving positive inequity, but rather will interpret the situation as validation of the unique competencies, qualities, expertise, and value they bring to their interorganizational relationship.

Consequently, we hypothesize that although Dutch firms will react negatively to positive inequity, U.S. firms will not exhibit any specific reaction to positive inequity.

Hypothesis 3a. In a Dutch interorganizational relationship, as a firm's perceived positive inequity increases, its hostility toward its partner is not affected.

Hypothesis 3b. In a Dutch interorganizational relationship, as a firm's perceived positive inequity increases, its trust in its partner decreases.

Hypothesis 3c. In a Dutch interorganizational relationship, as a firm's perceived positive inequity increases, its relationship continuity decreases.

Hypothesis 3d. In a Dutch interorganizational relationship, as a firm's perceived positive inequity increases, its guilt regarding its role in the relationship increases.

Hypothesis 4a. In a U.S. interorganizational relationship, a firm's perceived positive inequity does not have an effect on its hostility toward its partner.

Hypothesis 4b. In a U.S. interorganizational relationship, a firm's perceived positive inequity does not have an effect on its trust in its partner.

Hypothesis 4c. In a U.S. interorganizational relationship, a firm's perceived positive inequity does not have an effect on its relationship continuity.

Hypothesis 4d. In a U.S. interorganizational relationship, a firm's perceived positive inequity does not have an effect on its guilt regarding its role in the relationship.

Within-Culture Similarities and Differences in Inequity Effects

When faced with an increasingly inequitable relationship, Dutch firms will have greater distrust and lower relationship continuity, regardless of whether they are overcompensated or undercompensated. Therefore, the most stringent interpretation and the most comprehensive acceptance of the equity norm in Dutch interorganizational relationships would result in perceptions of inequity in any configuration having similar, negative effects on trust and relationship continuity. As negative inequity is expected to impact hostility (but not guilt) and positive inequity is expected to affect guilt (but not hostility), positive and negative inequity will have different effects on guilt and hostility for Dutch firms.

In contrast to Dutch firms' predicted negative response to both types of inequity, U.S. firms will respond negatively only to undercompensation. U.S. firms thus are expected to react differently to positive and negative inequity in terms of hostility, trust, and relationship quality; no difference is expected on guilt, as null effects are posited for both positive and negative inequity.

In summary, we hypothesize that Dutch firms will have similar, negative reactions to both negative and positive inequity; differences will be found only on hostility and guilt. In contrast, U.S. firms are expected to have very different reactions to negative and to positive inequity; their reactions to the two types of inequity will only be similar in the null effects on guilt.

Hypothesis 5a. In Dutch interorganizational relationships, the effects of negative inequity and positive inequity on hostility will be significantly different.

Hypothesis 5b. In Dutch interorganizational relationships, the effects of negative inequity and positive inequity on trust will not be significantly different.

Hypothesis 5c. In Dutch interorganizational relationships, the effects of negative inequity and positive inequity on relationship continuity will not be significantly different.

Hypothesis 5d. In Dutch interorganizational relationships, the effects of negative inequity and positive inequity on guilt will be significantly different.

Hypothesis 6a. In U.S. interorganizational relationships, the effects of negative inequity and positive inequity on hostility will be significantly different.

Hypothesis 6b. In U.S. interorganizational relationships, the effects of negative inequity and positive inequity on trust will be significantly different.

Hypothesis 6c. In U.S. interorganizational relationships, the effects of negative inequity and

positive inequity on relationship continuity will be significantly different.

Hypothesis 6d. In U.S. interorganizational relationships, the effects of negative inequity and positive inequity on guilt will not be significantly different.

Cross-Cultural Similarities and Differences in Inequity Effects

Finally, we expect that Dutch and U.S. firms will respond in the same way to negative inequity: undercompensation is posited to have similar effects in the Netherlands and in the United States on each dependent variable. In contrast, we anticipate that firms of these two countries will react very differently to positive inequity, with overcompensation having different effects on trust, relationship continuity, and guilt. As hostility is hypothesized to be unaffected by positive inequity, the effects on hostility are expected to be the same (null) for both Dutch and U.S. firms.

Hypothesis 7a. The effects of negative inequity on hostility will not be significantly different in U.S. and Dutch interorganizational relationships.

Hypothesis 7b. The effects of negative inequity on trust will not be significantly different in U.S. and Dutch interorganizational relationships.

Hypothesis 7c. The effects of negative inequity on relationship continuity will not be significantly different in U.S. and Dutch interorganizational relationships.

Hypothesis 7d. The effects of negative inequity on guilt will not be significantly different in U.S. and Dutch interorganizational relationships.

Hypothesis 8a. The effects of positive inequity on hostility will not be significantly different in U.S. and Dutch interorganizational relationships.

Hypothesis 8b. The effects of positive inequity on trust will be significantly different in U.S. and Dutch interorganizational relationships.

Hypothesis 8c. The effects of positive inequity on relationship continuity will be significantly different in U.S. and Dutch interorganizational relationships.

Hypothesis 8d. The effects of positive inequity on guilt will be significantly different in U.S. and Dutch interorganizational relationships.

METHODS

Sample and Data Collection

We collected data from independent automobile dealers in the United States and the Netherlands. Given our focus on firms' perceived inequity and attitudes toward their interorganizational relationship partners, our unit of analysis was a dealer's perspective regarding its relationship with its primary supplier. We used a mail questionnaire to collect data from a single, key informant in each dealership because in these businesses an owner-manager often has sole responsibility for managing the strategic aspects of the dealer-supplier relationship (e.g., Zaheer & Venkatraman, 1995). Telephone calls to 25 percent of our sample in each country confirmed that the informants were the people who most frequently interacted with the suppliers and were the most knowledgeable about their firms' dealer-supplier relationships (Kumar, Stern, & Anderson, 1992). The titles held by the informants, which included president, owner, and general manager, also suggested that the informants were appropriate sources of information.

In the United States, after deleting duplicate listings and those with no contact name from a commercial list of 2,100 new car dealers, we mailed surveys with personalized cover letters to 1,640 automobile dealers in one midwestern state (Missouri) and one eastern state (Pennsylvania). Follow-up letters to nonrespondents were mailed four weeks later. Questionnaires were received from 453 automobile dealers, for a response rate of 28 percent. In the Netherlands, we mailed questionnaires to a random sample of 1,600 dealers drawn from a list of all 4,000 new car dealers in the country. As no contact name was available for any of the Dutch dealers, cover letters were not personalized and, because of resource limitations, no follow-up letters were mailed. The Dutch response rate was 19 percent, with 309 questionnaires returned. After questionnaires with excessive missing data had been eliminated, the final sample consisted of 417 U.S. dealers and 289 Dutch dealers.

In both countries, each dealer was asked to identify the automobile supplier whose product line accounted for the largest share of his or her firm's sales. This supplier was a manufacturer for most U.S. dealers and an automobile importer for the Dutch dealers. The major supplier accounted for, on the average, 76.5 percent of a U.S. dealer's sales and 67.1 percent of a Dutch dealer's sales (this difference in percentages was significant at $p < .01$). The average dealer accounted for 49.0 (United States) and 41.6 percent (the Netherlands) of the supplier's sales in its trading area ($p < .10$).

Measures

To enhance translation equivalence, we had the original English questionnaire translated into Dutch by one person and then back-translated into English by a second person. The two expert translators reconciled any differences that emerged.

Dependent variables. Four items assessing hostility, anger, frustration, and resentment toward the principal supplier of an informant (a dealer) measured *hostility*. *Trust* was measured with ten items, five assessing the supplier's honesty and five measuring the supplier's benevolence (Larzelere & Huston, 1980; Ring & Van de Ven, 1992). *Relationship continuity* was measured with a three-item scale addressing the dealer's confidence that the relationship would continue. A single item assessed the dealer's *guilt* when reflecting on the relationship with the supplier. Given the difficulty of capturing the unique nuances of guilt versus similar constructs (such as shame), use of a single item is relatively common (Hegtvedt, 1990).

Independent variables. We measured *perceived inequity* with the four-item Walster Global Equity Measure (Walster, Walster, & Berscheid, 1978), which is based on Adams's original formulation of equity theory and is the most frequently used measure of inequity in interpersonal and organizational research (e.g., Cate, Lloyd, Henton, & Larson, 1982; Hegtvedt, 1990). Using seven-point scales (1 = "extremely low," 7 = "extremely high"), dealer informants indicated their perceptions of their firms' contributions to the relationships, the suppliers' contributions, the outcomes for their firms from the relationships, and finally, the suppliers' relationship outcomes. The degree of perceived inequity or equity in an interorganizational relationship was calculated by the following equation:

If

$$\frac{\textit{firm's outcomes}}{\textit{firm's inputs}} - \frac{\textit{partner's outcomes}}{\textit{partner's inputs}}$$

$$> 0, \textit{positive inequity;}$$

$$= 0, \textit{equity;}$$

$$< 0, \textit{negative inequity.} \quad (1)$$

See the Appendix for the measurement scales. Measurement statistics can be found in Table 1.

Measurement Analysis

To ascertain that our measures were not culture-bound, we examined the cross-national equivalence in factor structure and the internal consistency of the 18 items measuring our four dependent constructs (Steenkamp & Baumgartner, 1998). Using LISREL 8 (Jöreskog & Sörbom, 1996), we conducted hierarchical multigroup confirmatory factor analyses on the covariance matrixes to examine whether the measures' psychometric properties exhibited an invariant pattern across the two countries. By examining sequential models, we evaluated whether imposing additional equality parameter constraints across the countries resulted in substantially inferior models. Table 2 presents the descriptions and overall fit indexes for the four measurement models estimated. The simplest model, the equal structure model, assesses whether imposing the same factor structure for the United States and the Netherlands yields acceptable results. The overall fit of the equal structure model was adequate, as the comparative fit index (CFI) and Tucker-Lewis index (TLI) passed the generally accepted .90 cutoff. The model also demonstrated

TABLE 1
Means, Standard Deviations, Coefficient Alphas, and Correlations[a]

	United States			The Netherlands			Correlations				
Variable	Mean	s.d.	Alpha	Mean	s.d.	Alpha	1	2	3	4	5
1. Inequity	−0.43	0.93		−0.33	0.70			−.30***	.00	.34***	.16**
2. Hostility	2.36	1.03	.87	2.14	0.94	.87	−.44***		.40***	−.66***	−.47***
3. Guilt	1.47	0.78		1.65	0.83		.06	.30***		−.21***	−.16**
4. Trust	4.47	1.26	.92	4.70	1.06	.89	.45***	−.74***	−.14**		.54***
5. Relationship continuity	5.81	1.08	.62	5.48	1.19	.62	.21***	−.42***	−.10	.49***	

[a] Correlations from the United States appear below the diagonal, and correlations from the Netherlands appear above the diagonal. Coefficient alphas are not available for inequity, as it is a computed variable, or for guilt, which is measured by a single item.

** $p < .01$

*** $p < .001$

One-tailed tests.

TABLE 2
Results of Hierarchical Multigroup Confirmatory Factor Analyses[a]

Model	χ^2	*df*	CFI	TLI	CAIC
1. Equal structure[b]	871.34	258	.91	.90	1,506.34
2. Equal loadings[c]	898.16	272	.91	.90	1,427.33
3. Equal loadings and factor (co)variances[d]	924.64	282	.91	.90	1,378.21
4. Equal loadings, factor (co)variances, and error variances[e]	980.48	300	.90	.90	1,298.00

[a] CFI = comparative fit index, TLI = Tucker-Lewis fit index, and CAIC = consistent Akaike information criterion.

[b] The equal structure model (model 1) specified that the 18 items load on each of the four constructs as hypothesized for each country. Although the measurement model estimated was constrained to have an identical factor structure across the two countries, the parameter estimates were unconstrained or allowed to be idiosyncratic for each country.

[c] The equal loadings model (model 2) imposed an additional constraint on model 1 requiring that the factor loadings of the items to their respective constructs be equal across the two countries.

[d] The equal loadings and factor (co)variances model (model 3) imposed an additional constraint on model 2 requiring that the (co)variances between the constructs be equal across the two countries.

[e] The equal loadings, factor (co)variances, and error variances model (model 4) imposed an additional constraint on model 3 that the error variances be equal across the two countries.

convergent validity, as all factor "loadings" were significant, with only one standardized item loading less than .40; it also demonstrated adequate discriminant validity, as all factor intercorrelations were significantly below unity ($p < .001$). Contrasting the other three, more constrained, models with each other and with the equal structure model revealed that imposing additional equality constraints across the two countries did not substantially decrease the quality of the overall fit. The TLI remains unchanged, and the CFI for the most constrained model is only a negligible .01 worse than the equal structure model. The consistent Akaike information criterion, which incorporates a penalty against "overfitting," improved as constraints were added. We concluded that our measures showed a high level of cross-national equivalence and that it was therefore appropriate to contrast the relationships among these constructs across the United States and the Netherlands.

Spline Regression Analysis

To test our hypotheses, we needed an analysis procedure that could split perceived inequity (as calculated in Equation 1) and estimate separate, potentially different effects for positive and negative inequity. Spline regression analysis (Johnston, 1984) allowed us to incorporate differences in the nature of the inequity (see Kumar, Scheer, and Steenkamp [1998] for an application in an interorganizational relationship context).

Using Equation 1, we created two spline independent variables, *negative inequity* and *positive inequity*. When inequity exists, the appropriate spline variable reflects the nature and degree of that inequity; the other spline variable equals zero. When equity is reported, both spline variables equal zero. For each dependent variable, we estimated the equation:

$$y = b_0 + b_1 \textit{ positive inequity} + b_2 \textit{ negative inequity}. \quad (2)$$

The sign and significance of the regression coefficients b_1 and b_2 tested Hypotheses 1a–1d, 2a–2d, 3a–3d, and 4a–4d. Results from spline regression analyses are reported in Table 3. To test Hypotheses 5a–5d, 6a–6d, 7a–7d, and 8a–8d, we made "pairwise" comparisons of regression coefficients within and across countries with *t*-tests (Pedhazur, 1982), which are summarized in Table 4. Figure 2 depicts the findings.

RESULTS

Effects of Inequity

We hypothesized that Dutch firms would react negatively to both perceived negative inequity (Hypotheses 1a–1c) and perceived positive inequity (Hypotheses 3b–3d) as predicted by classical equity theory, while U.S. firms would respond negatively to perceived negative inequity (Hypotheses 2a–2c) but not to perceived positive inequity (Hypotheses 4a–4d). Tests of these hypotheses are found in Table 3, and the effects of positive and negative inequity on the various dependent variables are graphically depicted in Figure 2.

Effects of negative inequity. In the Netherlands, as negative inequity increased, firms exhibited increased hostility (.51, $p < .001$), lower trust (−.65, $p < .001$), and lower relationship continuity (−.39, $p < .001$). Guilt, as expected, was not affected by negative inequity (.07, $p > .10$). Hypotheses 1a–1d

TABLE 3
Results of Spline Regression Analysis[a]

Variable	Hypotheses	The Netherlands				United States			
		Hostility	Trust	Relationship Continuity	Guilt	Hostility	Trust	Relationship Continuity	Guilt
Negative inequity	1a–1d	0.51***	−0.65***	−0.39***	0.07	0.55***	−0.67***	−0.25***	−0.08†
	2a–2d	(0.08)	(0.09)	(0.11)	(0.08)	(0.05)	(0.07)	(0.06)	(0.05)
Positive inequity	3a–3d	0.42	−0.47†	−0.66*	0.52*	−0.12	0.27	0.22	−0.12
	4a–4d	(0.28)	(0.30)	(0.36)	(0.26)	(0.14)	(0.17)	(0.16)	(0.12)
Intercept		1.92***	4.97***	5.66***	1.60***	2.10***	4.78***	5.92***	1.51***
		(0.06)	(0.07)	(0.08)	(0.06)	(0.05)	(0.06)	(0.06)	(0.04)
R^2		.12***	.15***	.05***	.02*	.21***	.22***	.04***	.01†
Adjusted R^2		.12	.15	.04	.01	.21	.22	.04	.01
United States: $F(2, 414)$						55.15	56.53	9.50	2.02
The Netherlands: $F(2, 286)$		19.63	25.87	7.26	2.41				

[a] Standard errors are in parentheses. We conducted a one-tailed test if a directional effect was hypothesized and a two-tailed test if not.
† $p < .10$
* $p < .05$
*** $p < .001$

TABLE 4
Comparison of Regression Coefficients[a]

Difference in Effects of:	Hypotheses	Hostility	Trust	Relationship Continuity	Guilt
Negative and positive inequity in the Netherlands	5a–5d	0.35	0.59	0.75	1.76*
Negative and positive inequity in the United States	6a–6d	4.62***	5.32***	2.76**	0.28
Negative inequity in the United States and Netherlands	7a–7d	0.40	0.20	1.11	1.59
Positive inequity in the United States and Netherlands	8a–8d	1.72†	2.13*	2.21*	2.27*

[a] The t-values of the difference in the specific regression coefficients obtained from spline regression analysis (Table 3) are reported. For the within-country comparisons (Hypotheses 5a–5d and 6a–6d), df's are 414 (United States) and 286 (the Netherlands); for the between-country comparisons (Hypotheses 7a–7d and 8a–8d), dfs are 700. We conducted a one-tailed test if a directional effect was hypothesized and a two-tailed test if not.
† $p < .10$
* $p < .05$
** $p < .01$
*** $p < .001$

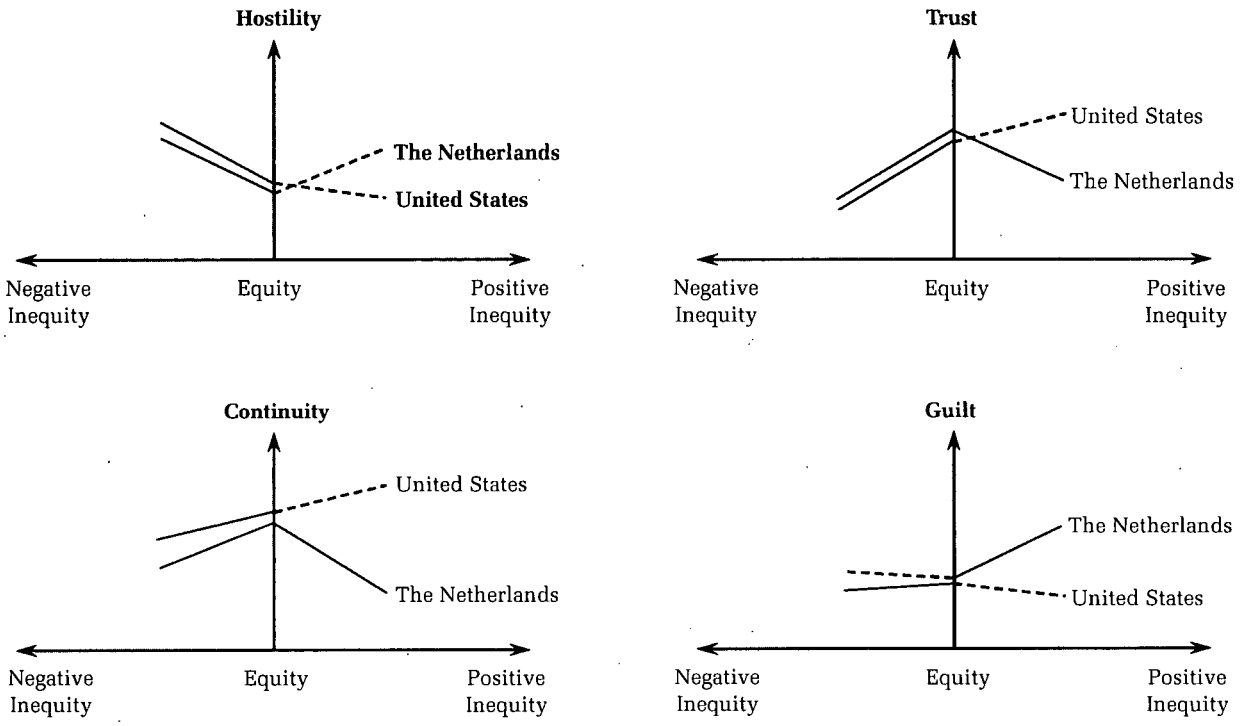
were thus supported. In the United States, as negative inequity increased, dealers reported greater hostility (.55, $p < .001$), lower trust (−.67, $p < .001$), and lower relationship continuity (−.25, $p < .001$), as predicted in Hypotheses 2a–2c. Although we had hypothesized a null effect on guilt, our data indicate that guilt decreased with greater negative inequity (−.08, $p < .10$), suggesting that for U.S. firms, high negative inequity dissipates whatever guilt results from other elements in their interorganizational relationships. In summary, negative inequity was associated with negative reactions for both Dutch and U.S. firms.

Effects of positive inequity. In the Netherlands, as positive inequity increased, hostility was not affected (.42, $p > .10$); trust (−.47, $p < .10$) and relationship continuity (−.66, $p < .05$) decreased; and guilt (.52, $p < .05$) increased. Hypotheses 3a–3d were thus supported. In the United States, as predicted in Hypotheses 4a–4d, positive inequity had no effect on hostility (−.12, $p > .10$), trust (.27, $p > .10$), relationship continuity (.22, $p > .10$), or guilt (−.12, $p > .10$). In summary, positive inequity resulted in negative reactions for Dutch firms but not for U.S. firms.

Similarities and Differences in Inequity Effects

Drawing on classical equity theory, we hypothesized that Dutch firms would react negatively to

FIGURE 2
Graphical Depiction of Effects of Negative and Positive Inequity[a]



[a] Solid lines denote significant ($p > .10$) effects; dotted lines indicate insignificant effects.

both negative inequity and positive inequity exhibiting lower trust and relationship continuity (Hypotheses 5b and 5c). Differences were expected on two types of negative reactions (Hypotheses 5a and 5d): hostility, which was posited to be affected only by negative inequity, and guilt, which was posited to be affected only by positive inequity. In contrast, we hypothesized that U.S. firms would respond very differently to negative and positive inequity (Hypotheses 6a–6c), with similarities only on guilt (Hypothesis 6d), which was expected to be unaffected by either type of inequity. The results of our tests of these hypotheses are reported in Table 4.

As hypothesized in Hypotheses 5b, 5c, and 5d, negative and positive inequity had similar effects on Dutch firms' trust ($t = 0.59$, $p > .10$) and relationship continuity ($t = 0.75$, $p > .10$) and significantly different effects on guilt ($t = 1.76$, $p < .05$). Contrary to our expectation, negative and positive inequity had a similar effect on hostility ($t = 0.35$, $p > .10$). This result suggests that a Dutch firm that perceives positive inequity will be suspicious of a partner that tolerates undercompensation. This finding also supports our basic contention that negative inequity and positive inequity will have similar, negative effects on firms in Dutch interorganizational relationships.

As hypothesized in Hypotheses 6a–6d, in the United States, negative and positive inequity had significantly different effects on hostility ($t = 4.62$, $p < .001$), trust ($t = 5.32$, $p < .001$), and relationship continuity ($t = 2.76$, $p < .01$), but not on guilt ($t = 0.28$, $p > .10$). These findings support our prediction that U.S. firms react differently to negative inequity than they do to positive inequity.

Cross-National Similarities and Differences

Finally, we hypothesized that negative inequity would have similar, negative effects on both Dutch firms and U.S. firms (Hypotheses 7a–7d), but that positive inequity would have divergent effects on firms in the two countries (Hypotheses 8b–8d). Positive inequity was expected to have a similar, null effect on hostility in both countries (Hypothesis 8a). These results are reported in Table 4.

Supporting Hypotheses 7a–7d, negative inequity had similar effects on hostility ($t = 0.40$, $p > .10$), trust ($t = 0.20$, $p > .10$), relationship continuity ($t = 1.11$, $p > .10$), and guilt ($t = 1.59$, $p > .10$) in both the Netherlands and the United States. Conversely, supporting Hypotheses 8b–8d, positive inequity had divergent effects on trust ($t = 2.13$, $p < .05$), relationship continuity ($t = 2.21$, $p < .05$), and guilt ($t = 2.27$, $p < .05$) in the two countries. Positive inequity also had significantly different effects on

hostility ($t = 1.72$, $p < .10$) in the Netherlands and the United States. While not predicted, this finding further bolsters our primary contention: Dutch and U.S. firms respond similarly to negative inequity but differently to positive inequity.

DISCUSSION

Despite the critical role that equity plays in Ring and Van de Ven's (1992, 1994) conceptual models, empirical examination of interorganizational relationship inequity has been scant. Noting that their models were based on research literature and a small number of inductive observations, Ring and Van de Ven called for further theoretical and empirical work. Taking a first step in this direction, we examined the effects of inequity on trust and relationship continuity, key indicators of interorganizational relationship health, and the effects of inequity on guilt and hostility, central variables in equity theory. Past equity studies have usually been conducted in laboratory settings, where subjects are unlikely to develop strong expectancies about future rewards and where the dichotomy of equity versus high inequity is manipulated (Greenberg, 1987; Harder, 1992; Vecchio, 1982). In this study, we measured perceived inequity as a continuous variable over a wide range of values in ongoing, naturally occurring interorganizational relationships in which informants had well-formed perceptions about their dealer-supplier relationships and their future prospects.

This study makes a significant contribution by demonstrating that one should not presume that firms behave in line with the predictions of classic equity theory. Our findings indicate that Dutch firms, on the average, do react according to equity theory predictions but that United States firms do not. When undercompensated, Dutch firms experience hostility, and when overcompensated, they experience guilt. In the face of inequity, either positive or negative, firms in the Netherlands exhibit lower trust and relationship continuity. U.S. firms react just as the Dutch do when faced with negative inequity, but they do not react negatively to positive inequity. These findings suggest that it is dangerous to presume that equity theory is universally applicable to interorganizational relationships and, specifically, to assume that positive inequity will have deleterious effects. It should be noted that some of the support for our theorizing is derived from null effects. However, the meaningfulness and the power in our study come from the *overall pattern* of results (Figure 2), which is, in turn, represented by the linked hypotheses including directional and null effects.

This research examined one type of interorganizational relationship and drew its U.S. sample from only two states, circumstances that potentially compromise the generalizability of the results to other contexts. Further, the question of whether nonrespondents differed systematically from the firms represented in the study is not answered here. In addition, the results for guilt and, to a lesser degree, those for relationship continuity must be interpreted in light of their low multiple squared correlation coefficients (R^2s). Despite the low R^2s, finding any statistically significant effects for a construct like guilt in an interorganizational relationship context is somewhat surprising. In addition, the low R^2-value for relationship continuity may be a consequence of the scale used in this study. We measured a firm's expectation that a given supplier relationship would continue. Thus, even if a firm strongly desired to maintain its relationship, it would report low relationship continuity if it perceived that its partner was likely to seek an alternative relationship. Future researchers should consider whether this relationship continuity construct is of interest or if other similar constructs, such as affective commitment or relational investment, are of greater interest.

This study only scratches the surface of the fertile research opportunities associated with outcome distribution norms in interorganizational relationships. One avenue for future research is a deeper exploration of the effects of positive inequity in the United States. Examination of the regression results in Table 3 reveals that, although not statistically significant, the sign of the effects of positive inequity for each dependent variable in the United States is the opposite of that in the Netherlands. This distinction suggests that at least some U.S. firms in our sample reacted positively to positive inequity, exhibiting greater trust in the partner and higher relationship continuity. Is this a realistic possibility? How can U.S. firms in interorganizational relationships react favorably to perceived positive inequity if their partners simultaneously experience negative inequity, with its associated negative effects? We theorize that the answer may lie with the focal outcomes U.S. firms consider in equity assessment.

To assess the degree of inequity in an interorganizational relationship, a firm must estimate its own and its partner's relationship outcomes. *Distributable outcomes* are those outcomes generated through the relationship that can be allocated to either the firm or its partner. For example, the total "channel profit" on the retail sale of an automobile (the net retail price minus the total costs incurred by both an automaker and a selling dealer in the

production, distribution, promotion, and sale) is allocated between the dealer and the automaker through the wholesale pricing mechanism. Distributable outcomes are a zero-sum game; any increase in distributable outcomes for one participant entails a corresponding decrease in outcomes for the other party. In contrast, *firm-specific outcomes* and *partner-specific outcomes* are those outcomes generated by a relationship that can only be received by that specific relationship participant; the outcomes are not transferable to the other relationship partner, although they may be lost to or gained from parties outside the focal firm-partner relationship. Some specific outcomes are exclusive to one relationship partner. For example, a dealer's sales, profits, and customer loyalty generated through its service activities are dealer-specific outcomes that are not transferable to the automobile manufacturer. Alternatively, some interorganizational relationship inputs may simultaneously generate favorable, nondistributable outcomes for both a firm and a partner. For example, an automaker's brand equity generates both favorable dealer-specific and favorable automaker-specific outcomes. Although the dealer benefits from its association with the automaker, those benefits are not transferred from the automaker; the manufacturer also benefits from its brand equity and does not dilute its own outcomes.

We theorize that national culture can impact which of these types of outcomes are evaluated in an equity assessment and that diverse reactions to positive inequity in the United States and the Netherlands may be explained by culturally based, systematically different approaches to the assessment of equity. Egalitarian cultures such as the Netherlands would be likely to encourage interorganizational relationship participants to consider all interorganizational relationship outcomes when assessing equity, including distributable outcomes and both participants' specific outcomes. The strong Dutch cultural imperative to pursue cooperation, solidarity, and leveling will motivate interorganizational relationship participants to share extensive information regarding each party's contributions to a relationship and the outcomes each receives through the relationship. Failure to do so could result in a relational disparity in which one participant receives excessive uncounted specific outcomes, thereby violating the values of egalitarian societies. In contrast, firms in the United States, with its emphasis on individual achievement, are likely to view their firm-specific outcomes as their own business and as something they are not obliged to disclose to their partner. As the partner's specific outcomes are seen as the partner's concern, U.S. firms are less motivated to invest time and effort in discerning and evaluating their partner's specific outcomes. Thus, we anticipate that in U.S. interorganizational relationships, firms will focus primarily on distributable relationship outcomes and on their own firm-specific outcomes.

Note that if U.S. firms assess outcomes in this manner, both participants in a dyad can *simultaneously* report positive inequity. Although a firm and its partner both base their equity assessments on their own and the other's outcomes, the precise components of the focal outcomes each considers would differ. Perceived positive inequity, in this sense, may be derived largely from the receipt of substantial firm-specific outcomes. Barring evidence to the contrary, the U.S. firm will assume that its partner is satisfied with what it has received (that is, partner-specific outcomes plus the partner's share of distributable outcomes). As the firm's positive inequity is not perceived as being obtained at the partner's expense, it will not induce guilt or have negative effects on trust or relationship continuity. In contrast, if both parties in a Dutch interorganizational relationship do, in fact, base their equity assessments on the same set of focal outcomes, one firm will justifiably conclude that if it experiences positive inequity, its partner inherently faces negative inequity.

It is therefore possible that U.S. and Dutch firms react differently to inequity not because U.S. firms disregard equity considerations, but because they adopt different perspectives for assessing interorganizational relationship outcomes. Although our findings are consistent with these proposed mediating processes, we cannot test these possibilities with our data. Our measures assessed firm and partner outcomes at a general level, thereby permitting the informants to include whatever focal outcomes they deemed appropriate and relevant. To examine the hypothesis that U.S. firms focus on firm-specific and distributable outcomes in equity assessment while Dutch firms focus on firm-specific, distributable, and partner-specific outcomes, more specific measures of outcome types must be employed. In addition, only dyadic data can determine if a firm and its partner simultaneously report positive inequity. Future research is needed to examine these possibilities.

Even if the underlying national culture promotes consistent relational norms, within any nation there will be firms whose reactions deviate from the predominant national cultural norm (Pennings, 1993). Another possible explanation for our results is that in the U.S. interorganizational relationships we studied, firms did not use the equity norm in outcome fairness assessment. At least three other

distributive norms may be relevant for interorganizational relationships. Participants in these associations may adhere to an *independence norm,* whereby neither partner compares its own relationship outcomes to its partner's outcome, although comparisons may be made to one's own inputs or to one's previous outcomes. If an *equality norm* is applied, a participant focuses solely on its own and its partner's outcomes, ignoring inputs completely (Deutsch, 1985). An *equitable equality norm* dictates both equality in outcomes and equality in inputs, thereby simultaneously achieving both equity and equality (Cate et al., 1982). Future research is needed to examine whether national cultural values do, in fact, predispose firms to generally accept and abide by specific norms in assessing relationship outcomes.

Interorganizational coordination is inherently more complex when a relationship participant deals with partners whose values and norms conflict with its own. The challenge is heightened when dealing with partners from different countries with diverse values. One way managers can make the ongoing interorganizational relationship coordination process less arduous is by selecting international partners whose inherent, dispositional values and norms match those of their own firm. In some cases, however, the problems resulting from having a partner that is out of step with its national culture can outweigh the advantages. An alternative strategy is to devise unambiguous policies regarding interorganizational relationship norms and to screen potential partners for willingness to adopt and abide by these norms regardless of their inherent, dispositional preferences. This strategy requires continuing efforts to inculcate, nurture, and preserve a strong relational culture supportive of those norms. Firms that have insufficient power to establish and enforce their preferred relationship norms must play by their more dominant partner's rules, as failure to agree upon the norms that will be used to assess the fairness of its outcomes can doom an interorganizational relationship. Research on the initiation, management, and effectiveness of interorganizational relationships composed of participants with diverse distributive norms is sorely needed.

Thus, a firm's distributive norms could vary across its relationships. The firm may agree to pursue equality in its closest alliances, yet apply the equity norm in its interaction with other partners. Research should examine the conditions under which firms are willing to adopt new norms and the extent to which relationship-specific norms can be successfully cultivated. Future research could also explore if firms from some national cultures are more amenable to accepting and effectively operating under a variety of relationship norms. Another potential moderating factor is environmental munificence. When there is plenty, interorganizational relationship partners may be willing to pursue equity, but when resources are scarce, equity ideals could be jettisoned and the independence norm could come to the fore.

This implies that a firm's equity preferences could vary not only across its relationships, but also *within* its relationship with a particular partner over time. To examine whether, how, and why operative norms vary among firms within a national culture, across partners within a dyad, within a firm across its assorted relationships, or within a specific firm-partner relationship over time, future research must employ methods to access and identify the operative underlying relational norms.

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APPENDIX

Measurement Items

Equity Components

All things considered, how would you evaluate your firm's and the supplier's relative participation in this relationship? (1 = "extremely low," 7 = "extremely high")

1. Our firm's contributions to the relationship.
2. The supplier's contributions to the relationship.
3. The outcomes we receive from the relationship.
4. The outcomes the supplier receives from the relationship.

Hostility

When your firm reflects on the relationship with the supplier, does your firm feel. . . (1 = "strongly feels this way," 5 = "does not feel this way"; codings were reversed)

1. hostility 2. anger 3. frustration 4. resentment

Trust (1 = "strongly disagree" and 7 = "strongly agree")

Trust in Partner's Honesty

1. Even when the supplier gives us a rather unlikely explanation, we are confident that they are telling the truth.
2. The supplier has often provided us information which has later proven to be inaccurate. (reversed)
3. The supplier usually keeps the promises that they make to our firm.
4. Whenever the supplier gives us advice on our business operations, we know that they are sharing their best judgment.
5. Our organization can count on the supplier to be sincere.

Trust in Partner's Benevolence

1. Though circumstances change, we believe that the supplier will be ready and willing to offer us assistance and support.
2. When making important decisions, the supplier is concerned about our welfare.

3. When we share our problems with the supplier, we know that they will respond with understanding.
4. In the future we can count on the supplier to consider how its decisions and actions will affect us.
5. When it comes to things which are important to us, we can depend on the supplier's support.

Relationship Continuity (1 = "strongly disagree," 7 = "strongly agree")

1. We expect our relationship with the supplier to continue for a long time.
2. Renewal of relationship with the supplier is virtually automatic.
3. It is unlikely that our firm will still be doing business with this supplier in two years. (reversed)

Guilt

When your firm reflects on the relationship with the supplier, does your firm feel guilt?

(1 = "strongly feels this way," 5 = "does not feel this way"; codings reversed)

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