Seeing Another Viewpoint: Antecedents and Outcomes of Employee Perspective Taking

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SEEING ANOTHER VIEWPOINT: ANTECEDENTS AND OUTCOMES OF EMPLOYEE PERSPECTIVE TAKING

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Supplier perspective taking, whereby an internal customer adopts the perspective of an internal supplier, was investigated. Two dimensions were assessed: positive attributions and empathy. Supplier perspective taking was associated with team leader ratings of employees’ contextual performance. Production ownership and integrated understanding predicted supplier perspective taking and were in turn predicted by job autonomy. Interaction with suppliers contributed to supplier perspective taking directly and indirectly. These findings suggest two ways to enhance supplier perspective taking and hence contextual performance: increase employee interaction with suppliers and enrich job content.

Perspective taking, or adopting another person’s viewpoint, has long been considered an important developmental trend that is responsible for much of human social capacity (Mead, 1934; Piaget, 1932). The concept is particularly significant for modern organizations, where traditional boundaries are blurred and the need to work collaboratively is very salient (Dean & Snell, 1991). Understanding frameworks different from your own and empathizing with others is fundamental to collaborative working. However, despite its increasing relevance, there have been few studies of perspective taking within organizations. Recognizing the importance of this concept, Mohrman and Cohen urged research on “how people working laterally can communicate across their perspectives and world views and learn from one another” (1995: 377).

In this study, we investigated antecedents and consequences of the extent to which frontline employees take the perspective of their internal suppliers. To set the context for the study, we discuss the concept of perspective taking and its operationalization. We then propose that perspective taking will promote contextual performance, particularly helping and cooperative behaviors. Finally, we propose individual and job-related antecedents of supplier perspective taking.

CONCEPTUAL BACKGROUND

Interest in Perspective Taking

There has been a long tradition of research investigating perspective taking, albeit mostly within disciplines other than organizational behavior. In pioneering work by Piaget (1932), perspective taking was shown to be a fundamental aspect of child development. This was demonstrated using the “three mountains task” (Piaget & Inhelder, 1968), in which children stood at a particular spot to view an arrangement of three model mountains and were asked to select a photograph that reflected how the scene would look from other perspectives (represented by chairs). Young children were often unable to perform the task correctly, although older ones could. The conclusion drawn was that young children do not have sufficient cognitive maturity to take another’s point of view, but that as they develop, children learn to attend to the viewpoints of others.

Perspective taking continues to be an important concept within the study of human development. In a summary of this literature, Bartunek, Gordon, and Weathersby proposed that “as people progress developmentally, their thinking becomes more complex and abstract and, paradoxically, also more precise and specific. Correspondingly, they become increasingly able to empathize with others who hold conflicting views” (1983: 274). This greater

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ability to take the perspective of others is assumed to indicate higher levels of cognitive complexity (Harvey, Hunt, & Schroder, 1961). There is also evidence that advances in perspective-taking skills underlie moral development and reasoning. For example, in Kohlberg’s (1969) six-stage description of moral reasoning, individuals progress slowly from a primitive, egocentric morality to a more principled view in which individuals can see multiple perspectives, the highest levels of which, it is suggested, many mature adults are unlikely to achieve. The concept of perspective taking is also important within clinical situations, where it is often assumed that therapy can only be successful if the clinician empathizes with the client (Duan & Hill, 1996). Perspective taking is also a key concept in research investigating social processes such as altruism (e.g., Batson, 1991).

Within the study of organizations, these cognitive developmental concepts have been applied to the topics of managerial development and leadership. An underlying premise is that more effective managers will have greater cognitive complexity and will be at later stages of cognitive-moral development (Fisher & Torbet, 1992). For example, Weick’s (1979: 61) advice to managers to “complicate yourself” suggests that the best managers will be able to see and understand organizational and environmental events from multiple, rather than single, perspectives. The application of cognitive development theories is particularly relevant within the domain of transformational leadership (e.g., Kuhnert & Lewis, 1987; Turner, Barling, Epitropaki, Butcher, & Milner, in press) and business ethics (e.g., Treviño, 1992).

**Approaches to Conceptualizing Perspective Taking**

The multidisciplinary interest in the topic is reflected in the range of ways that perspective taking and empathy have been conceptualized. Duan and Hill (1996) identified three key approaches. First, some theorists adopt a dispositional approach in which empathy is considered as a relatively stable trait or general ability, such as an ability to perceive the feelings of other people (Sawyer, 1975). The assumption is that some individuals are more able to take the perspective of others, either by nature or by development. For example, Hoffman (1982) argued that children are raised differently (that is, taking others’ perspectives is encouraged to various degrees) and so can have different predispositions to empathize. Some individuals are also assumed to have higher cognitive complexity (Harvey et al., 1961), which means they have greater cognitive capacity to take others’ perspectives. Terms such as “empathic disposition” (Hogan, 1969: 309) and “dispositional empathy” (Davis, 1983: 113) reflect this approach to empathy.

Second, empathy can be viewed as a cognitive-affective experience that varies with the situation. Thus, empathy has been defined as responding vicariously to a stimulus or stimulus person (Batson & Coke, 1981) or as entering another's private world (Rogers, 1980). The assumption is that, regardless of one’s developmental level of empathy, empathic experience will vary as a function of one’s cognitive appraisal of a situation. Social psychologists often take this approach because it allows them to manipulate empathy in experiments investigating its effects on social processes. For example, a more empathic state can be engendered by “role-taking,” in which individuals are asked to imagine how they would feel in the same situation or to imagine what the target is thinking or feeling (Davis et al., 1996). This approach allows for studying the effects of situational factors on empathy and is an underlying assumption of interventions designed to enhance empathy (e.g., Goleman, 1996).

The third approach, often seen within the clinical literature, considers empathy a multiphased experiential process. From this perspective, the focus is on understanding the moment-to-moment experience of empathy and on identifying the multiple stages involved in producing or communicating an empathic state. For example, Egan (1990: 123) described empathy as “a way of being” that is needed to “be with” and develop an understanding of clients and their world. Egan described several phases involved in producing and communicating an empathic state, such as perceptiveness, communicating understanding of the client, and challenging a client when required. However, to date, empirical inquiry within this approach has been quite limited, and the multistage process theories of empathy remain more descriptive than explanatory (Duan & Hill, 1996).

In summary, different approaches to conceptualizing perspective taking and empathy have arisen in response to the context within which the concept is being studied. In this study, we drew particularly on the first and second of these approaches. We assume that, consistent with the dispositional approach to empathy, people are reasonably stable in the extent to which they take others’ perspectives. However, consistent with the second approach, we propose that organizational factors can shape and change perspective taking by influencing the specific situations employees are exposed to or by affecting their developmental state over the long term. We were primarily concerned
with the effect of work situations on employees’ perspective taking.

Distinguishing between Empathy and Perspective Taking

Thus far, we have used the terms “perspective taking” and “empathy” as though they are interchangeable, as has often been done in the literature. However, it is generally agreed that perspective taking is a cognitive or intellectual process that results in the affective response of empathy. As Hoffman (1975) explained, for empathy to occur, the individual experiencing it must know that the arousal is due to an event that is happening to someone else, and they need some understanding of what the other person is feeling. How people experience empathy, therefore, depends on the level at which they cognize others. Duan and Hill (1996: 263) used the term “intellectual empathy” to refer to the cognitive process of taking another person’s perspective and used “empathic emotions” to refer to the affective experience of empathy. Following these authors, we consider perspective taking as a cognitive process that can result in the affective response of empathy but, as we describe next, it is a state that also has other cognitive manifestations, notably, changed attribution processes.

Manifestations of Perspective Taking

Research has consistently demonstrated that the process of perspective taking results in two fundamental phenomena. First, as discussed above, when people engage in active perspective taking, they are more likely to empathize with the targets (the people whose perspective is taken), feeling concern about their misfortunes (e.g., Betancourt, 1990; Davis, 1983), understanding or identifying with their experiences (Egan, 1990), and experiencing pleasure at their achievements (Aron, Aron, Tudor, & Nelson, 1991). It is important to note that empathy is distinct from sympathy. Sympathy involves feeling sorrow, pity, or compassion for someone rather than identifying with the emotions of a target or understanding her or his experiences (Eisenberg & Mussen, 1989; Gill, 1982). As Egan (1990) suggested, in therapeutic terms, sympathy denotes agreement and collusion, whereas empathy denotes understanding and acceptance and is more objective.

The second manifestation of perspective taking involves making positive attributions about a target’s behaviors and outcomes, such as recognizing the effects of external circumstances when things go wrong for the target and acknowledging the role of internal factors such as hard work and ability when things go well for the target. Often people explain others’ behavior in more negative terms than they would use to explain their own. A phenomenon known as the actor-observer bias (Jones & Nisbett, 1971) is that people tend to attribute the behavior of others to the character or disposition of the others, but when explaining their own behavior, they take situational factors into account. An extension of this is the self-serving bias (Berstein, Stephan, & Davis, 1979), in which different explanations are given according to whether there is a positive or negative outcome. Individuals tend to attribute their own success to internal factors, such as ability and hard work, and failure to external factors, such as task difficulty, whereas they tend to give situational explanations for others’ success and dispositional explanations for others’ failure. Evidence suggests these biases are reduced when individuals take the perspective of others (Galper, 1976; Regan & Totten, 1975). Attributions about others’ behaviors become more positive and more like the attributions that individuals make about their own behavior.

Both of these manifestations, empathy and positive attributions, bestow a favored status on the individual whose perspective has been taken. Davis, Conklin, Smith, and Luce concluded “that the mental processes associated with perspective taking cause an observer’s thoughts and feelings about a target to become, in some sense, more ‘self-like’” (1996: 713–714). They proposed that the observer’s two cognitive structures (self and target) come to share more common elements. Aron and colleagues (1991) also found support for two kinds of self-other merging that map broadly onto the dimensions of empathy and positive attributions.

In the current study, we defined perspective taking in terms of its immediate manifestations. Thus, individuals were assumed to have adopted a target’s perspective when they reported empathy for the target (such as understanding the target’s problems and feeling concern for the target if he or she is under pressure) and when they made positive attributions about a target’s behavior (such as recognizing the role of situational factors when the target made mistakes, rather than seeing mistakes as due solely to personal factors such as laziness). Our approach is distinct from more dispositional and general measurements of empathy, such as Davis’s (1983) measure of empathic concern that assesses an individual’s stable tendency to have feelings of sympathy, concern, and warmth toward others. Our approach is also distinct in that we do not include sympathy, which is suggested to be a different construct from empathy.
Targets of Perspective Taking

Perspective taking requires a target; that is, it must be considered in terms of a particular relationship or set of relationships. In organizational studies, a plausible way to choose a target is to examine the strategic aims of an organization.

Within flexible manufacturing organizations, the extent to which internal customers are able to adopt the perspective of their internal suppliers is pertinent. We labeled this form of perspective taking “supplier perspective taking.” High-quality internal customer-supplier relationships are fundamental to the smooth flow of work and the proactive management of quality, as emphasized in interventions such as total quality management. It is this form of perspective taking that we focus on here. In the company investigated, managers were striving to improve product quality and reduce high scrap levels. They saw improving internal customer-supplier relationships as critical to these goals. Initiatives such as visiting schemes were being introduced to increase the extent to which teams considered the effects of their work on other teams who were positioned before or after them in the process. The company examined in the study was thus a highly appropriate context within which to investigate supplier perspective taking.

ANTECEDENTS AND OUTCOMES OF PERSPECTIVE TAKING

Our aim in this study was to investigate antecedents and outcomes of supplier perspective taking. Figure 1 shows our proposed model, which we describe in detail next. First we consider the relationship between perspective taking and contextual performance. Second we describe individual and job-related antecedents of supplier perspective taking.

Perspective Taking and Contextual Performance

It is well established within the field of social psychology that perspective taking enhances interpersonal relations, by increasing helping behaviors and decreasing aggression (Batson, 1991), for instance. More broadly, the development of cognitive complexity (with which perspective taking is related) has been shown to be associated with reduced prejudice (Gardiner, 1972) and resolving conflicts cooperatively (Eiseman, 1978).

At the same time, there is much interest in fostering effective interpersonal relationships within modern organizations, where pressures for coordination and integration are high. This increased interest is reflected in the growth of organizational concepts that emphasize interpersonal and volitional behaviors at work, such as contextual performance (Borman & Motowidlo, 1993), organizational citizenship behavior (OCB; Organ, 1988), and organizational spontaneity (George & Brief, 1992). As Motowidlo and Van Scotter stated, these types of concepts “all highlight behaviors that involve cooperation and helping others in the organization” (1994: 475). For example, contextual performance involves an array of volitional behaviors that support the social and motivational context in which work is carried out (Borman & Motowidlo, 1993). The most important dimension of contextual performance has been shown to be interpersonal facilitation, which includes cooperative, considerate, and helpful acts that assist other workers’ performance and facilitate good working relationships (Van Scotter & Motowidlo, 1996). OCB covers a
similar range of behaviors (Organ, 1988), including altruism and helping coworkers.

We propose that perspective taking will enhance interpersonal facilitation, or those cooperative and helping acts that support the work context. This proposition is consistent with Brief and Motowidlo’s (1986) suggestion that empathy is a key predictor of prosocial behaviors such as helping others. Specifically, we propose that supplier perspective taking will be associated with cooperative and helping behaviors towards suppliers.

We tested this proposition using a measure of cooperative behaviors toward personnel external to a given team, including suppliers. We propose that supplier perspective taking will only be associated with cooperative behaviors toward these external personnel, not toward team members. This comparative analysis provides a test of differential validity and also allows insight into the nature of perspective taking. A link between supplier perspective taking and cooperative behaviors across multiple relationships within and outside a team would suggest a more dispositional variable; however, a link only to cooperative behaviors toward external personnel would suggest supplier perspective taking has a stronger situational component. The hypothesis is:

**Hypothesis 1.** Supplier perspective taking will be positively associated with cooperative and helping behaviors toward personnel external to a team, including internal suppliers.

Although not a formal hypothesis, our expectation was also, nonetheless, that supplier perspective taking would not be positively associated with cooperative and helping behaviors toward team members.

**Antecedents of Supplier Perspective Taking**

Assuming that the extent to which employees adopt other perspectives is important for performance, we needed to identify the individual and job-related factors that are directly or indirectly associated with perspective taking. Figure 1 summarizes the variables we focused on in the current study.

**Individual antecedents.** The first individual antecedent we considered is an employee's flexible role orientation; that is, whether he or she has an emergent and flexible view of his or her role rather than a narrow, “that’s not my job” view (Parker, Wall, & Jackson, 1997). It has been widely argued that a flexible role orientation will facilitate performance in today’s organizations (e.g., Lawler, 1992). Flexible role orientation can be measured in terms of production ownership, or the extent to which employees feel ownership and accountability for a range of production aspects, such as customer satisfaction and on-time delivery, rather than feeling concern only for their immediate set of fixed tasks. We propose that those employees with a flexible role orientation, or high production ownership, are likely to adopt the perspective of their internal suppliers. Employees with an inflexible role orientation, or low production ownership, are likely to see internal suppliers and their problems as someone else’s concern. This proposition is consistent with research showing that the more individuals feel accountable for their decisions in attribution tasks, the more likely they will use discriminating and complex information processing to make situational attributions rather than reverting to the lazier option of attributing the act to dispositions (Tetlock, 1985). High production ownership involves feeling accountable for production aspects outside one’s immediate tasks and is thus likely to be associated with greater attribution complexity among employees when they consider their supplier. Our hypothesis is:

**Hypothesis 2.** Employees with flexible role orientations, or high production ownership, will be more likely to take the perspective of their internal suppliers.

The second individual antecedent we considered is the extent to which an employee has an integrated understanding of the workplace, such as an understanding of how her or his job relates to the bigger picture and an understanding of what other departments do. Like flexible role orientation, integrated understanding concerns breadth of perspective. However, whereas flexible role orientation focuses on how broadly individuals construe their own roles, integrated understanding concerns breadth and complexity of knowledge about the work environment. Many commentators have argued that frontline employees in flexible organizations need to understand wider work systems to contribute effectively (Lawler, 1992; Mohrman & Cohen, 1995). We propose that the higher employees’ integrated understanding, the more they will adopt their suppliers’ perspective. This proposition is consistent with research showing that cognitively complex individuals who possess more differentiated and integrated understanding are better able to take others’ perspectives (Devine, 1989).

**Hypothesis 3.** Employees who perceive they understand the wider organization and how their jobs fit into the broader picture (have high integrated understanding) will be more likely to take the perspective of their internal suppliers.
The final individual antecedent we considered is experience of the supplier job. One might expect that employees would be likely to adopt their suppliers’ perspective if they have previously carried out their suppliers’ jobs. It is a well-established belief that experiencing an event creates empathy for others experiencing that event, and experimental evidence supports this idea (Batson et al., 1996).

Our hypothesis is:

**Hypothesis 4.** Employees who have previously carried out the jobs of their internal suppliers will be more likely to adopt the perspective of those suppliers.

**Job-related antecedents.** We propose that as well as individual factors promoting supplier perspective taking, job factors will facilitate it, either directly or indirectly. One such job factor is likely to be the amount of interaction with a target that an individual has on the job. This premise is consistent with arguments that adult cognitive and moral development can be facilitated by interaction with others (Haan, Smith, & Block, 1968) and the consequent “exposure to alternative ways of thinking” (Weathersby, 1993: 80). Mohrman and Cohen (1995) suggested that learning others’ perspectives is likely to come more from collaborating and interacting with others in the process of doing one’s work than from more formal learning, such as training classes or reading company manuals. Interactions enable employees to find out what a target’s perspective is and why the target might have that perspective. It has been argued that people know more about the circumstances under which they themselves act than they know of those under which others act, and thus the potential explanatory field is more restricted when giving attributions about a target (Jones & Nisbett, 1972). Interaction with the target is likely to generate more information about his or her circumstances and thus enhances the likelihood of making positive attributions about the target’s behavior. Our hypothesis is:

**Hypothesis 5.** The more interaction employees have with their suppliers, the more likely they will adopt their suppliers’ perspective.

We also propose that supplier interaction will have an indirect association with perspective taking via its effect on other individual antecedents. First, if employees interact with suppliers, they will learn more about them, such as how the suppliers’ jobs fit into the wider production process. Supplier interaction is therefore likely to lead to greater integrated understanding, which, in turn, is proposed to enhance supplier perspective taking.

Second, drawing on the literature on employee participation in change, which suggests that if employees participate in decisions about change, they will be more likely to develop ownership for that change (e.g., Davis & Wacker, 1988), we propose that interaction with suppliers will enhance production ownership. The more interaction and involvement that employees have with their suppliers, the more likely they are to develop a sense of ownership for aspects of production outside of their immediate sets of fixed tasks. Our hypothesis is:

**Hypothesis 6.** Interaction with suppliers will be associated with production ownership and integrated understanding, which will in turn be associated with perspective taking.

The final antecedent we considered is job autonomy. We propose that job autonomy will promote perspective taking indirectly through its effect on production ownership and integrated understanding. It is often assumed that interventions that enhance employee autonomy, such as high-involvement working, promote employee development and learning (Lawler, 1992). For example, Cummings and Blumberg argued that job autonomy enables employees to gain “greater insight of the overall manufacturing process” (1987: 49). Empirical evidence supports this widely held view. Research has shown that enhancing job autonomy can promote a sense of ownership among employees (Parker et al., 1997) and that greater job control can promote the development of new knowledge (Wall, Jackson, & Davids, 1992). Our hypothesis is:

**Hypothesis 7.** Job autonomy will be associated with production ownership and integrated understanding, which in turn will be associated with perspective taking.

**METHODS**

**Procedures and Samples**

Two samples were used. Sample 1 was used to test Hypotheses 2 to 7, concerning antecedents of perspective taking. This sample consisted of frontline production employees at one site of a United Kingdom–based glass-manufacturing company who completed an attitude survey. We administered the survey during work time. The response rate was approximately 60 percent (n = 141). The mean age of the sample respondents, 80 percent of whom were men, was 40.05 years (s.d. = 11.82), and their mean company tenure was 9.87 years (s.d. = 10.68). The sample had demographic characteristics very similar to those of the target population (frontline employees...
at the site), suggesting it was a representative one. For example, in sample 1, 8 percent of the individuals were less than 25 years of age, 54 percent were between 25 and 45, and 38 percent were over 45; the comparable figures for the whole site were 7, 51, and 42 percent. With regard to tenure, 50, 15, and 35 percent of the sample had been in the company for 0–5 years, 6–10 years, and more than 10 years, respectively; the figures in the same order for the whole site were 43, 14, and 43 percent. Most of the employees at the site (82%) were men, which was similar to the proportion in sample 1 (80%). Chi-square tests of the difference in frequency distributions of age, tenure, and gender for sample 1 and the site were nonsignificant.

Sample 2 was a subset of sample 1 and included frontline employees who had completed the survey and had also been appraised by their team leaders on a range of dimensions (n = 57). Sample 2 was used to test Hypothesis 1, concerning the effect of perspective taking on contextual performance. Sample 1 could not be used in entirety because not all employees had valid appraisal data (the appraisal system was relatively new, and some team leaders had not yet used the system). The mean age of sample 2 respondents was 37.75 years (s.d. = 11.36), and their mean tenure was 8.16 years (s.d. = 9.8). There were no significant differences between sample 1 and sample 2 in tenure, age, gender, level of perspective taking, or any of the antecedents, suggesting that sample 2 was representative of sample 1.

**Measure of Supplier Perspective Taking**

Respondents were asked to think about their main internal supplier and rate whether they agreed or disagreed with a series of statements on a scale ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). The term “internal supplier” was widely used within the company to refer to the team upstream in the process that provided materials or products for employees to work on (the term “internal customer” was used to refer to the downstream team). For example, the furnace team supplied the glass production team, and the materials supply team supplied the decorating team. In the questionnaire, internal suppliers were defined as follows: “the people who supply you with materials or products to work on. Typically they will carry out the process before you.”

The two indicators of supplier perspective taking were assessed with three items each. Empathy with suppliers refers to the extent to which employees empathize with a supplier, in ways such as being concerned and understanding about their problems or experiencing pleasure in their achievements. The three items and their standardized coefficients from a confirmatory factor analysis (described below) were: “I feel concerned for my suppliers if they are under pressure” (.81); “It pleases me to see my suppliers doing well” (.51); and “I understand the problems my suppliers experience” (.69). The second dimension of perspective taking concerns making positive attributions about behaviors and outcomes. Two items represented positive attributions because they include a recognition that circumstances can negatively affect performance: “They are doing the best they can, given the circumstances” (.81) and “If they make mistakes, it’s usually not their fault” (.46). The third item, “They work just as hard as we do” (.62), is a positive attribution because it acknowledges the role of internal factors (effort and hard work) in suppliers’ effective performance.

To validate our approach to measuring perspective taking, it was important to determine that these two dimensions of supplier perspective taking were related but distinct. We conducted a confirmatory factor analysis (CFA) of items, using LISREL VIII (Jöreskog & Sörbom, 1993) and covariances from PRELIS 2. Multiple indexes of fit were calculated, including the chi-square and chi-square ratio. We also calculated two incremental fit statistics. Hu and Bentler (1998) recommended using the standardized root-mean-square residual (RMSR; Jöreskog & Sörbom, 1981) when maximum likelihood methods are used. A value of less than .05 is desired. They further recommended supplementing the RMSR with one of several indexes, and the index suggested to be most appropriate for small samples (<250 cases) is the comparative fit index (CFI; Bentler, 1990). CFI values greater than .90 are considered to indicate a good fit. We therefore report the RMSR and the CFI incremental fit indexes.

The independence model that tested the hypothesis that all variables were uncorrelated was easily rejectable (χ² [n = 141] = 266.40, p < .001) and was a poor fit to the data (χ² ratio = 17.76, CFI = .90). A one-factor model that tested the hypothesis that all items could be subsumed under a single construct was a reasonable fit to the data (χ² [n = 141] = 36.81; χ² ratio = 4.09. However, the two-factor model was an even closer fit (χ² [n = 141] = 10.09, p < .001; χ² ratio = 1.26 and a significant improvement over the one-factor model (Δχ² [n = 141] = 26.72, p < .001). The CFI for the two-factor model was .99, which was much higher than the CFI value of .89 obtained for the one-factor model. The RMSR for the two-factor model was below .05 (.04), which indicated a good fit, whereas the value (.07) obtained for the one-factor model indicated a
poorer fit. There were no large modification indexes for the two-factor model, suggesting there was little to be done to further improve the fit. Standardized coefficients for the items were all greater than .45.

The CFA shows that the supplier perspective taking measure has two dimensions that map onto those identified in the literature: empathy with suppliers and positive attributions about suppliers. We composed two subscales by combining the relevant items ($\alpha$'s = .78 and .71, respectively). The correlation between the dimensions was .53. The validity of the scales is further demonstrated by examining their associations with measures of contextual performance (see “Results,” Hypothesis 1).

**Measures of Contextual Performance**

Ratings from performance appraisals conducted within six months of the first survey administration were used to assess contextual performance, specifically cooperative behavior toward personnel external to the team (including suppliers) and cooperative behaviors toward team members. As part of an annual appraisal process, team leaders ($n = 18$) rated their employees on various work behaviors. Team leaders worked “hands on” in the teams and could closely observe their employees. Participants were informed about the research and were given the opportunity to decline permission for researchers to obtain their performance appraisal data (all participants agreed to their data being used). The mean age of the team leaders who carried out the ratings was 37.66 years (s.d. = 11.33); the mean tenure was 8.05 years (s.d. = 9.71); and 69 percent were men.

**Cooperative behaviors toward external personnel.** Team leaders rated (1, “rarely,” to 4, “always”) how often employees: “are friendly and helpful towards visitors and other employees who do not normally work in the department,” “let their internal suppliers know of any problems that they are causing them in a clear, constructive and polite manner,” “think of ways that they can improve service to our customers and do something about it,” and “receive compliments from customers or suppliers.” These items were in a section of the appraisal form entitled “dealing with suppliers, customers and visitors.” Ratings for the four items were summed ($\alpha = .60$). Although this reliability is somewhat low, it is important to remember that these items were part of the company appraisal system and were used to inform decision making in areas such as promotion and the identification of training and development needs.

**Cooperative behaviors toward team members.** Team leaders rated, on the same four-point scale described above, how often employees: “are friendly towards their colleagues,” “get on with different sorts of people,” “work towards team goals and not just their own,” and “work well with colleagues in their team.” These items were in a section of the appraisal form entitled “working with colleagues.” Ratings for the items were summed ($\alpha = .77$).

Analyses of variance indicated no significant differences across team leaders in the ratings they gave on either measure of cooperative behaviors.

**Measures of Antecedents**

Table 1 shows the full set of items for each antecedent variable. For each scale with multiple items, the mean score was used as the focal variable.

**Production ownership.** A shortened version of Parker et al.'s (1997) measure was used to assess this aspect. Employees indicated the extent to which “they would feel personal concern for” various problems that could occur in their work area, such as customer dissatisfaction and poor quality products (1, “to no extent; no concern to me,” to 5, “very large extent; most certainly of concern to me”).

**Integrated understanding.** Employees rated the extent to which they understood various aspects of their work, such as how it contributed to the overall work of the department (1, “not at all,” to 5, “a great deal”).

**Interaction with suppliers.** Two items assessed this aspect. First, employees indicated how often they usually had contact with their internal suppliers on a scale from 1 (“less than once a month”) to 6 (“several times a day/shift”). Second, employees indicated whether they had ever visited the area where their internal suppliers worked, assigning 1 for “yes” and 0 for “no.” Scores on both items were standardized to ensure they were equally weighted and then averaged.

**Experience of supplier job.** Respondents were asked to indicate whether they had ever carried out the job done by their internal suppliers, (1 = “yes,” 0 = “no”).

**Job autonomy.** Job autonomy was assessed using the six-item method control scale developed and validated by Jackson, Wall, Martin, and Davids (1993). Employees indicated the extent that they had control over various aspects, such as planning their work and work methods, on a scale from 1 (“not at all”) to 5 (“a great deal”).

To show the distinctiveness of the antecedent variables from each other, we conducted a princi-
TABLE 1
Factor Loadings and Reliabilities for Pattern Matrix*  

<table>
<thead>
<tr>
<th>Antecedents and Items</th>
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<th>1</th>
<th>2</th>
<th>3</th>
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<td>Job autonomy (extent to which you can)</td>
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<td>Decide how to get about getting your job done</td>
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<td>.89</td>
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<td>Choose the methods to use in carrying out your work</td>
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<td>Plan your own work</td>
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<td>.87</td>
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<td>Control the quality of what you produce</td>
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<td>Vary how you do your work</td>
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<td>Control how much you produce</td>
<td></td>
<td>.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production ownership (extent of concern if)</td>
<td></td>
<td>.88</td>
<td></td>
<td>.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requests for output from your area were repeatedly not met on time</td>
<td></td>
<td></td>
<td></td>
<td>.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your customers were dissatisfied with what they receive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.82</td>
<td></td>
</tr>
<tr>
<td>The quality of output from your area was not as good as it could be</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.79</td>
</tr>
<tr>
<td>Costs in your area were higher than budget</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction with suppliers</td>
<td></td>
<td>.65</td>
<td></td>
<td></td>
<td>.84</td>
<td></td>
</tr>
<tr>
<td>How often do you usually have contact with your internal suppliers?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.81</td>
</tr>
<tr>
<td>Have you ever visited the area where your internal suppliers work?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated understanding (extent to which you)</td>
<td></td>
<td>.83</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand how your work contributes to the work of the overall department</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand how your department as a whole works</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand how your work affects the work of other departments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand the jobs of the people who you pass work to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experience of supplier job</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you ever carried out the job done by your internal suppliers?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.97</td>
</tr>
</tbody>
</table>

*Loadings less than .35 are not shown.

pal components analysis of these items (the sample size was not large enough to conduct a confirmatory factor analysis). We used “oblimin” rotation because we expected moderate-sized correlations between some factors. The pattern matrix for the five-factor solution shows that items mapped onto the scales as expected (see Table 1), therefore providing evidence of factorial validity for the measures.

In addition to the measures of antecedents, age (in years), tenure (in years), and gender (“male” = 1, “female” = 0) were indicated by each respondent.

RESULTS

Supplier Perspective Taking and Contextual Performance

To test Hypothesis 1, we examined the association between supplier perspective taking and cooperative behaviors toward personnel external to a respondent’s team, including suppliers, and compared this association to that between supplier perspective taking and cooperative behavior toward team members. As expected, supplier perspective taking as a whole was significantly correlated with cooperative behaviors toward external personnel, including suppliers ($r = .27$, $p < .01$), but not with cooperative behaviors toward team members ($r = .00$). This relationship held for the supplier perspective taking subscales. The separate dimensions of supplier perspective taking, empathy with suppliers, and positive attributions about suppliers were associated with cooperative behaviors toward external personnel, including suppliers ($r = .29$, $p < .01$; $r = .21$, $p < .05$, respectively), but not with cooperative behaviors toward team members ($r = -.07$; $r = .08$, respectively). Hypothesis 1 was therefore supported.

Antecedents of Supplier Perspective Taking

This section reports tests of Hypotheses 2–7.

Correlations. Zero-order correlations between the variables are shown in Table 3. The correlations between antecedents and the supplier perspective taking scales supported Hypotheses 2, 3, 5, 6, and 7. However, contrary to Hypothesis 4, there was no significant association between experiencing the supplier job and supplier perspective taking. Such experience was also not significantly linked to in-
TABLE 2
Correlations between Supplier Perspective Taking Scales and Ratings of Contextual Performance Scales\(^a\)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean</th>
<th>s.d.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Supplier perspective taking</td>
<td>3.54</td>
<td>0.67</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Positive attributions about suppliers</td>
<td>3.46</td>
<td>0.76</td>
<td>.89***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Empathy with suppliers</td>
<td>3.64</td>
<td>0.74</td>
<td>.89***</td>
<td>.60***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Cooperative behavior toward external personnel, including suppliers(^b)</td>
<td>2.70</td>
<td>0.50</td>
<td>.27**</td>
<td>.21*</td>
<td>.29**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Cooperative behavior toward team members</td>
<td>3.60</td>
<td>0.43</td>
<td>.00</td>
<td>.08</td>
<td>-.07</td>
<td>.39**</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) n = 54–56.
\(^b\) One-tailed tests were used to assess the significance of these associations.
* \(p < .05\)
** \(p < .01\)
*** \(p < .001\)

TABLE 3
Correlations of Major Variable\(^s\)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>s.d.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>40.05</td>
<td>11.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Tenure</td>
<td>9.87</td>
<td>10.68</td>
<td>.60***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Gender(^b)</td>
<td>0.80</td>
<td>0.40</td>
<td>-.03</td>
<td>.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Supplier perspective taking</td>
<td>3.58</td>
<td>0.65</td>
<td>.33**</td>
<td>.34***</td>
<td>-.14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Positive attributions about suppliers</td>
<td>3.42</td>
<td>0.73</td>
<td>.21*</td>
<td>.27**</td>
<td>-.24**</td>
<td>.87***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Empathy with suppliers</td>
<td>3.74</td>
<td>0.76</td>
<td>.36***</td>
<td>.32**</td>
<td>.00</td>
<td>.08***</td>
<td>.53***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Production ownership</td>
<td>3.75</td>
<td>0.94</td>
<td>.15</td>
<td>.15</td>
<td>.12</td>
<td>.35***</td>
<td>.20***</td>
<td>.39***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Integrated understanding</td>
<td>3.86</td>
<td>0.88</td>
<td>.29***</td>
<td>.30***</td>
<td>.19*</td>
<td>.41***</td>
<td>.31***</td>
<td>.41***</td>
<td>.54***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Experience of supplier job(^b)</td>
<td>1.42</td>
<td>0.50</td>
<td>-.00</td>
<td>-.00</td>
<td>-.00</td>
<td>.12</td>
<td>.11</td>
<td>.08</td>
<td>.16</td>
<td>.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Interaction with suppliers</td>
<td>0.00</td>
<td>0.87</td>
<td>.03</td>
<td>.27**</td>
<td>-.08</td>
<td>.37***</td>
<td>.31***</td>
<td>.33***</td>
<td>.18*</td>
<td>.23***</td>
<td>.21**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Job autonomy</td>
<td>3.20</td>
<td>1.27</td>
<td>.09</td>
<td>.19*</td>
<td>.11</td>
<td>.11</td>
<td>.07</td>
<td>.11</td>
<td>.34***</td>
<td>.47***</td>
<td>.05</td>
<td>.12</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) n = 141.
\(^b\) Point biserial correlations with statistical significance evaluated by computing a t-test of the difference between the means from the continuous variable subgrouped by the dichotomous variable (Guilford & Fruchter, 1978).
\(^c\) Standardized.
* \(p < .05\)
** \(p < .01\)
*** \(p < .001\)

The hypothesized model was tested using structural equation modeling. This type of analysis has the advantage of correcting for unreliability of measures and also gives information on the unique paths between constructs after potentially confounding variables are controlled for. Including pathways between age, tenure, and gender and all of the other variables controlled for their influence.

One revision was made to the hypothesized model before testing. As described above, there was no zero-order correlation between experience of the supplier job and supplier perspective taking, although this antecedent was associated with the antecedent of interaction with suppliers. It is plausible that employees who have carried out their supplier's job are more likely to interact with the suppliers because they have established personal relationships with them. Thus, we included in the model a pathway from experience of supplier job to interaction with suppliers. The reverse causal relationship (that interaction with a supplier leads to carrying out the supplier's job) is less plausible.

Inspection of the zero-order correlations also showed that positive attributions about suppliers and empathy with suppliers were both significantly associated with age (\(r = .21, p < .05\); \(r = .36, p < .001\), respectively) and with tenure (\(r = .27, p < .01\); \(r = .32, p < .001\), respectively). Positive attributions about suppliers were also associated with gender (\(r = -.24, p < .01\)), with men reporting fewer positive attributions. These background variables were also associated in various ways with the antecedents. It was therefore necessary to control for the influence of age, tenure, and gender in subsequent analyses.

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**Structural equation modeling.** This type of analysis has the advantage of correcting for unreliability of measures and also gives information on the unique paths between constructs after potentially confounding variables are controlled for. Including pathways between age, tenure, and gender and all of the other variables controlled for their influence.
LISREL VIII (Jöreskog & Sörbom, 1993) using covariances obtained from PRELIS 2. To keep the sample size per estimated parameter to reasonable levels, we fixed various elements of the model. The measurement error in each antecedent variable was fixed to one minus the reliability multiplied by the variance of the observed measure. Internal consistency reliability estimates were used to estimate reliability. A reliability of .90 was assumed for age, gender, and tenure (see Anderson & Gerbing, 1988). Age, gender, and tenure were allowed to intercorrelate, as were these sets: interaction with suppliers and job autonomy, production ownership and integrated understanding, and the supplier perspective taking subscales.

The hypothesized model provided a good fit to the data ($\chi^2 = 78.42, p < .001, \chi^2$ ratio = 1.66, RMSR = .05, CFI = .94). The hypothesized model was a significantly better fit than the null model of no covariance between the measures ($\chi^2 = 549.16, p < .001$). All of the modification indexes for the beta pathways between major variables were small, suggesting that adding additional paths would not significantly improve the fit. The residuals of the covariance were also small and centered around zero. Inspection of the standardized parameter estimates (Figure 2) showed that most of the hypotheses were supported. Production ownership predicted empathy with suppliers ($\beta = .25, p < .05$), consistent with Hypothesis 2, although production ownership did not have a significant unique association with positive attributions about suppliers ($\beta = -.06, p > .05$). The opposite pattern was obtained for integrated understanding. This antecedent predicted positive attributions about suppliers ($\beta = .30, p < .05$), consistent with Hypothesis 3, but did not uniquely predict empathy with suppliers ($\beta = .21, p > .05$). Interaction with suppliers predicted both empathy with suppliers ($\beta = .34, p < .001$) and positive attributions about suppliers ($\beta = .38, p < .001$), as proposed in Hypothesis 5. Consistent with Hypothesis 6, interaction with suppliers predicted integrated understanding ($\beta = .25, p < .05$) and production ownership ($\beta = .20, p < .05$). Job autonomy predicted production ownership ($\beta = .34, p < .001$) and integrated understanding ($\beta = .49, p < .001$), which in turn predicted perspective taking, consistent with Hypothesis 7. Although Hypothesis 4 was not supported, experience of supplier job predicted interaction with suppliers ($\beta = .26, p < .01$), which was in turn associated with perspective taking.

**Comparisons with alternative models.** In accordance with common practice, we compared the final model with a series of plausible alternative structural models. Following Kelloway’s (1995) guidelines, we tested only meaningful alternative models and paid particular attention to mediating pathways. First, the current model has a fully mediating pathway from job autonomy to the supplier perspective taking scales via integrated understanding and production ownership. This model was compared with one in which job autonomy

---

**FIGURE 2**

Final Model of Significant Pathways for Antecedents of Supplier Perspective Taking

![Final Model of Significant Pathways for Antecedents of Supplier Perspective Taking](image)

*Intercorrelations between variables: production ownership, integrated understanding, $\Psi = .22^*$; positive attributions about suppliers, empathy with suppliers, $\Psi = .71^{***}$; age, tenure, $\Psi = .66^{**}$. 

* $p < .05$

** $p < .01$

*** $p < .001$
had direct links with perspective taking as well as the indirect links via integrated understanding and production ownership. This latter model did not significantly improve the fit ($\Delta \chi^2 = 4.23, p > .05$), and the incremental fit statistics (RMSR = .05, CFI = .95) were almost the same as those obtained for the final model (RMSR = .05, CFI = .94). In further support of the final model, a model with only direct links between job autonomy and perspective taking (that is, the pathways from integrated understanding and production ownership to the supplier perspective taking scales were removed) was a poorer fit ($\chi^2 = 88.10, \chi^2$ ratio = 1.97, CFI = .92). The RMSR was .06, which is above the suggested criteria of .05 and thus suggests a poorer fit than the final model.

Second, the hypothesized model shows a partially mediated relationship between interaction with suppliers and the supplier perspective taking scales via integrated understanding and production ownership. A model with no mediating pathways from integrated understanding and production ownership to the supplier perspective taking scales has already been shown to be a worse fit to the data (see above). A model with the direct links removed (no paths between supplier interaction and either positive attributions or production ownership) was also a poorer fit ($\Delta \chi^2 = 13.93, p < .001, \text{CFI} = .92, \text{RMSR} = .07$). This evidence therefore supports a partially mediated relationship.

Finally, the model shows a fully mediated pathway between experience of supplier job and the supplier perspective taking scales via supplier interaction. A model with additional direct links between experience of the supplier job and the supplier perspective taking scales did not significantly improve the model ($\Delta \chi^2 = 0.01, p > .05, \text{RMSR} = .05, \text{CFI} = .94$). A model with the indirect pathway between experience of the supplier job and supplier interaction removed was a poorer fit ($\chi^2 = 6.81, p < .01, \text{RMSR} = .06, \text{CFI} = .92$). These results thus show the necessity of the indirect pathway. In summary, the tests of alternative models support the final model shown in Figure 2.

**DISCUSSION**

We set out to investigate perspective taking within organizations, its functionality in terms of contextual performance, and its antecedents. We explored this concept with internal suppliers as the target because good relations between internal customers and suppliers are essential to effective performance in many modern organizations.

**Summary and Implications**

*Construct validity of the supplier perspective taking measure.* Testing the research propositions required the development of an appropriate measure of perspective taking. The measure we developed is grounded in the extensive psychological literature on this topic. Two immediate manifestations of perspective taking have been widely documented: empathy towards the target and positive attributions about the target’s behavior. The measure of supplier perspective taking included items that encapsulated both manifestations and that were designed to be relevant to the organizational context. As expected, empathy with suppliers and positive attributions about suppliers were positively related; yet, as shown by a confirmatory factor analysis of items, they were distinguishable from each other. Further demonstrating their construct validity, the measures of perspective taking were significantly associated with independently gathered team leader ratings of cooperative behaviors toward external personnel including suppliers. Although this measure was not specific to suppliers (being a measure based on company-generated appraisal items), this finding indicates that supplier perspective taking is related to independent ratings of how helpful and cooperative employees are to personnel outside their immediate job and work area. As expected, showing discriminant validity, supplier perspective taking was not significantly associated with cooperative behavior toward team members. The supplier perspective taking scales were also related in expected ways to other constructs in the nomological network, such as production ownership, integrated understanding, and supplier interaction. There was therefore good evidence for the validity of the measure of perspective taking.

*Perspective taking and contextual performance.* Although we need to be cautious at this stage owing to the cross-sectional design of the study, these findings suggest the value of considering perspective taking as a determinant of contextual performance. Many researchers have urged more investigation into the correlates of contextual performance, arguing that the findings will help practitioners manage these work behaviors more effectively (Organ & Ryan, 1995). In addition, the finding that ratings of cooperative relationships with personnel external to a team and team members were correlated suggests a dispositional orientation toward being cooperative, but the fact that supplier perspective taking was most strongly associated with cooperative behaviors toward per-
sonnel external to the team, including suppliers, indicates there is also a specific situational component.

**Antecedents of perspective taking.** This study showed that several individual and job-related factors positively predict perspective taking. The findings support the idea that the extent to which employees see multiple viewpoints can be enhanced via organizational intervention, although further research is needed to establish causality (see section on limitations). Production ownership and integrated understanding were both important antecedents of supplier perspective taking, although interestingly, the more cognitive manifestation of perspective taking (positive supplier attributions) was primarily predicted by the more cognitive individual antecedent of integrated understanding, whereas the more affective element of perspective taking (empathy with suppliers) was predicted by production ownership, which is more emotive than integrated understanding. This suggests that different mechanisms underpin the two manifestations of perspective taking.

One important intervention that is likely to affect both mechanisms is interaction with suppliers. Results suggest that the more contact employees have with their suppliers, the more likely they will make positive attributions about supplier behavior and empathize with them. The indirect associations show that supplier interaction can affect perspective taking through the mechanisms of integrated understanding and production ownership. In addition, the finding that there were direct relationships over and above these indirect links suggests other mechanisms. One possibility is that employees form personal relationships when they interact, and because of this, they are more generous in the attributions they make and more likely to experience empathy. Nevertheless, regardless of the precise mechanisms, the main finding that supplier interaction is associated with supplier perspective taking has potential practical implications. For example, if there are difficulties with the interpersonal relationships between two groups, interventions could be introduced to increase interaction between their members. Possibilities include ensuring there are regular meetings between the groups, including members from the different groups in problem-solving activities, designing integrating mechanisms (see Mohrmann & Cohen, 1995), having social activities that involve both groups, and introducing visiting schemes whereby people shadow those from other departments. The results also suggest that if employees have worked in suppliers’ job, they will be more likely to interact with them. Job rotation across existing task boundaries could thus be another valuable practice.

A further potential intervention to enhance perspective taking suggested by this study is the introduction of more autonomous work designs. Job autonomy was an important predictor of employees’ level of production ownership, consistent with Parker and colleagues (1997), and autonomy was also associated with integrated understanding. As well as suggesting job redesign as a potential perspective-taking intervention, this finding suggests extending traditional work design research to include outcomes such as perspective taking and contextual performance. Work design research has traditionally focused on affective reaction outcomes such as job satisfaction and stress.

**Limitations**

The study has strengths, such as the use of independent ratings of behavior, but it is limited by its cross-sectional design. Although we tested the most plausible directions for the pathways in our model, longitudinal research is needed to assess the direction of causality of the relationships and to tease out possible reciprocal processes. The study was conducted within a single company, and further studies are needed before the findings can be generalized. We also cannot rule out the possibility of common method variance as an alternative explanation of the relationships between the antecedents and perspective taking, although this is unlikely. Some of the antecedents (such as experience of the supplier job) were assessed with yes/no questions that are less susceptible to influences such as negative affectivity. The scales were also reliable and valid, and properly developed measures are resistant to method-variance problems (Spector, 1987). A final limitation concerns the measure of contextual performance. Although it was a company-generated measure that shaped personnel decisions, and therefore had good external validity, the measure assessed cooperative behaviors toward multiple personnel external to the team, including suppliers, customers, and visitors. A measure focusing only on internal suppliers would provide a stronger test of the link between perspective taking and contextual performance.

**Extensions to the Measurement of Perspective Taking and the Model**

As well as replication and longitudinal investigation, there are several ways to develop the ideas in this article. A methodological extension would be to assess the accuracy of perceptions of emotions
and attributions. Duan and Hill (1996) recommended an approach in which one looks at the match between a person’s perceptions of a target’s feelings or thoughts and the target’s actual feelings or thoughts. The measurement of perspective taking could also be extended to include other aspects. For example, seeing the target’s resources as the self’s resources has been identified as an additional important aspect of “self-other merging” (Aron et al., 1991).

We have only skimmed the surface concerning potential antecedents of perspective taking in this study. Individual difference variables such as proactive personality (Bateman & Crant, 1993), locus of control, and attributional complexity (Devine, 1989) are likely to be associated with perspective-taking activity and could moderate the associations between situational variables and supplier perspective taking. Additional job-related aspects, such as excess workload, could also inhibit supplier perspective taking, and yet others (for instance, transformational leadership) could aid it. In addition, we focused here on employees’ taking the perspective of their suppliers, but different targets (external customers, consumers, team members) could be the focus of investigation, depending on an organization’s strategic aims. The extent to which employees adopt multiple perspectives might be especially predictive of a wider range of contextual behaviors.

More broadly, perspective taking is a cognitive process that takes motivated effort (Devine, 1989), and how much effort individuals put in will be influenced by the nature of the target. For example, research has shown that the more people see themselves as similar to a target, the more they are likely to take the target’s perspective (Eisenberg & Mussen, 1989). Similarly, individuals are more likely to help those whom they like and consider worthy (Dovidio, 1984) as well as those who have helped them or might do so in the future (Dreman, 1976). It will be important to build consideration of target characteristics and behavior into our model.

REFERENCES


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