

Organizational identity strength, identification, and commitment and their relationships to turnover intention: Does organizational hierarchy matter?

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Summary

In the present study we sought to clarify the functional distinctions between organization identity strength, organizational identification, and organizational commitment. Data were obtained from 10 948 employees of a large steel manufacturer. First, confirmatory factor analysis was used to test the discriminant validity of the three focal constructs. Next, drawing on research that suggests hierarchical differentiation may influence individuals' conceptual frame of reference, we examined each focal construct's measurement equivalence across three hierarchical levels (officers, $n = 1,056$, middle-management, $n = 1049$, workers, $n = 1050$). Finally, multigroup structural equation modeling was used to simultaneously estimate the between-group correlations between turnover intention and organization identity strength, organizational identification, and organizational commitment. Results indicated that (a) the measures used to reflect the three focal constructs were empirically distinct, (b) the focal constructs were conceptually equivalent across hierarchical levels, and (c) the pattern of correlations with turnover intention was different for employees with management responsibilities versus workers with no management responsibility. The present findings suggest perceptions of a strong organizational identity, organizational identification, and organizational commitment may influence employees' turnover intention in unique ways, depending on their hierarchical level within the organization. Copyright © 2006 John Wiley & Sons, Ltd.

The relationship between an individual member and the employing organization has long been known to have an impact on the attitudes, behavior, and well-being of individuals. In this regard, two of the more researched constructs include organizational identification and organizational commitment, both of which were developed in an attempt to understand, predict, and influence employee behavior. Organizational identification, as the more recent of the two perspectives, examines the process whereby an individual's identity becomes psychologically intertwined with the organization's identity. Although a long-standing interest to sociologists and social psychologists, the social identity approach, subsuming both social identity theory and self-categorization theory, has only recently emerged as an important perspective in organizational behavior research (see Pratt, 1998; van Dick, 2004, for reviews). The second perspective, which encompasses organizational commitment, views the

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individual-employer relationship as a series of social exchanges (e.g., Cole, Schaninger, & Harris, 2002). Social exchange relationships between two parties are different from those of pure economic exchange, in that they develop through a series of mutual exchanges that yield a pattern of reciprocal obligation by each party (Blau, 1964).

Perhaps the most significant development in organizational identification and organizational commitment theories has been the recognition that both concepts can be directed toward a wide range of foci, or social categories, of relevance to workplace behavior (e.g., Becker, Billings, Eveleth, & Gilbert, 1996; Meyer & Herscovitch, 2001; Riketta & van Dick, 2005; van Dick, Wagner, Stellmacher, & Christ, 2004b). In general, this research has shown that the choice of one social category over another is dictated by the perceived salience that accompanies membership in that particular group. Among all possible categories that exist within an organizational context, none is as salient or visible as one's hierarchical level (i.e., the chain of authority; Mintzberg, 1983). Indeed, the notion that organizations are structured hierarchically (at least officially) is one of the most fundamental of organizational foci. Therefore, it should not be surprising that individuals may come to perceive their level within the organization's hierarchy as a salient social category that is shared with other members of an ingroup and not shared with members of an outgroup (a point we will return to anon).

Importantly, previous research offers only limited empirical evidence that organizational identity (OI) strength, organizational identification, and organizational commitment are distinct constructs. In a rare instance when both OI strength and organizational identification were included in the same study (see Kreiner & Ashforth, 2004), no discriminant validity evidence was reported to demonstrate that the two constructs are unique. Likewise, Gautam, van Dick, and Wagner (2004) asserted that little research exists that has investigated whether organizational identification and organizational commitment are empirically distinct. We are aware of only three published studies that were designed to investigate whether organizational identification and organizational commitment are empirically distinct (Gautam et al., 2004; Mael & Tetrick, 1992; van Knippenberg & Sleebos, 2006). No study (to our knowledge) has assessed individuals' perceptions of OI strength and organizational identification and organizational commitment in one study.

From a psychometric (measurement) theory perspective, researchers cannot assume that self-report measures elicit the same conceptual frame of reference across diverse groups (Vandenberg & Lance, 2000). Rather, because survey measures are designed to tap unique aspects of the work experience, comparisons between groups are only appropriate if measurement equivalence can be established (Vandenberg & Lance, 2000; Vandenberg, 2002). Therefore, it is possible that individuals at different hierarchical levels do not use a common frame of reference when responding to items that reflect OI strength, organizational identification, and/or organizational commitment. Hierarchical differentiation may also influence the salience of each of the focal constructs and, as a result, each may relate to organizational outcomes in different ways. Thus, the foregoing discussion raises several important questions that need to be explored. For example, is there a difference between OI strength, organizational identification, and organizational commitment? Do the measures used to operationalize OI strength, organizational identification, and organizational commitment exhibit measurement equivalence across hierarchical levels? If so, do the focal constructs correlate with outcomes in unique ways across the hierarchical levels?

The aim of this paper is to focus attention on the psychological constructs of OI strength, organizational identification and organizational commitment, and, in doing so, address many of the questions posited in the preceding paragraph. First, we review the literature to demonstrate the conceptual differences with regard to OI strength, organizational identification, and organizational commitment. Second, using confirmatory factor analysis, we examined whether OI strength, organizational identification, and organizational commitment can be assessed as empirically distinct constructs. Third, using multigroup confirmatory factor analysis, we tested the measurement

equivalence of OI strength, organizational identification, and organizational commitment across three hierarchical levels of employees (officers, middle-management, and workers). The principal advantage of using a covariance structure approach is that we were able to test the assumptions of measurement equivalence through a series of nested model constraints placed upon selected parameters in an *a priori* manner. Finally, using multigroup structural equation modeling, we explored whether the focal constructs' between-group correlations with a theoretically and practically relevant outcome variable (i.e., turnover intention) might yield differential relations, further highlighting any conceptual or empirical differences among the focal constructs.

OI Strength, Organizational Identification, and Organizational Commitment

Conceptual meanings

Despite its growing popularity, research on organizational identity and organizational identification is still very much in its infancy (Gioia, Schultz, & Corley, 2002; Haslam, Postmes, & Ellemers, 2003). Accordingly, as Albert, Ashforth, and Dutton (2000) observed, there is little consensus regarding the meaning and definition of the terms organizational identity and organizational identification. Whereas Albert et al. (2000) viewed the lack of universal agreement as being anything but an impediment to progress; we suspect that it may, at times, foster confusion among organizational researchers. For instance, although rarely the focus of research, OI strength, as a psychological construct, is qualitatively different from perceptions concerning the content of an organization's identity (Gioia & Thomas, 1996). Furthermore, researchers have used the terms 'identity strength' and 'organizational identification' interchangeably (e.g., Haslam et al., 2003), others have reserved the term 'identity' to reflect the nature or content of a particular identity and the term 'commitment' to characterize the identification process (e.g., Ellemers, Spears, & Doosje, 2002), and still others have argued organizational identification and organizational commitment are theoretically different concepts (e.g., Ashforth & Mael, 1989; Pratt, 1998). Therefore, we take note to provide conceptual clarification with regard to the focal constructs of OI strength, organizational identification, and organizational commitment.

Organizational identity strength

The organization identity (OI) strength construct is theoretically distinguishable from the concept of organizational identity because, whereas an organization's identity captures the essential features believed to be central, enduring, and distinctive of an organization (Albert & Whetten, 1985), OI strength reflects the degree to which its members perceive the identity as being special or unique (Milliken, 1990). Generally conceived, *OI strength* is the extent to which individual member's identity perceptions are widely held and deeply shared (Kreiner & Ashforth, 2004), as manifested in members' sense of their organization's history, traditions, symbols, practices, and philosophy (Gioia & Thomas, 1996). In the present analysis, we followed prior research and operationalized OI strength as an individual-level construct believed to reflect individuals' perceptions of identity strength more so than actual strength (i.e., within-group agreement). Accordingly, the word 'strength' as used here is not meant to signify a unit-level characteristic common to climate research (cf. Schneider, Salvaggio, & Subirats, 2002). Irrespective of the validity or accuracy of these perceptions, individuals' strength-of-identity perceptions are believed to influence job attitudes and behaviors (e.g., Kreiner & Ashforth, 2004; Milliken, 1990).

Organizational identification

Over the past decade, organizational researchers have increasingly applied social identity theory to the workplace. As a specific form of social identification, *organizational identification* (henceforth identification) reflects the specific ways in which individuals define themselves in terms of their membership in a particular organization (Mael & Ashforth, 1995). The focus on identification within organizational contexts has continued to intensify as it is purported to benefit individuals, work groups, and the organization as a whole (Ashforth & Mael, 1989; Riketta, 2005; van Dick, 2004). Haslam et al. (2003) have gone as far to contend that without organizational identification, 'there can be no effective organizational communication, no heedful interrelating, no meaningful planning, no leadership' (p. 365).

Organizational commitment

Organizational commitment has also inspired a tremendous amount of research (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Like a number of constructs, organizational commitment has, at times, been a difficult concept to define and measure (see Meyer & Herscovitch, 2001, for a review). As defined here, *organizational commitment* (henceforth commitment) refers to an individual's emotional attachment to and involvement in an employing organization. Recent meta-analytic evidence has reported commitment to predict a wide range of job attitudes, turnover intention, and citizenship behaviors (Cooper-Hakim & Viswesvaran, 2005; Meyer et al., 2002).

Empirical distinctiveness

Gioia, Schultz, and Corley (2000) have argued that, because modern organizations are increasingly forced to change in order to deal with complex and turbulent environments, the normally accepted conception of organizational identity should be reconsidered. Recognizing that an organization's identity is socially constructed, theorists (e.g., Gioia et al., 2000; Rousseau, 1998) have begun to consider the concept of organizational identity to have a sense of continuity and fluidity. Gioia and colleagues (2000) have further contended that because an identity is mutable, it is also 'frequently up for redefinition and revision by organizational members' (p. 64). Likewise, according to Dutton, Dukerich, and Harquail (1994), as members evaluate (and reevaluate) the organization's defining features, they are constructing a perceived organizational identity. The foregoing observations strongly suggest that it may not be identity *per se*, but rather the *strength* with which identity beliefs are entrenched within organizational members that might be of real importance to organizations. Because only a few studies have attempted to investigate strength-of-identity perceptions as a unique phenomenon (see Gioia & Thomas, 1996; Kreiner & Ashforth, 2004; Milliken, 1990), little is known about the influence OI strength perceptions have on individuals' judgments and job-related outcomes. Yet this knowledge could yield theoretical as well as practical insight and, therefore, OI strength was assessed in the present study.

Whereas relatively little research has explored OI strength, researchers have long been interested in identification and commitment. However, despite both theoretical and empirical developments, there remains frequent confusion between identification and commitment (Riketta, 2005; van Dick, 2004). Identification theorists have suggested that this confusion stems, in part, from past conceptualizations of organizational commitment. As defined by Mowday, Porter, and Steers (1982), organizational commitment reflects the 'relative strength of an individual's *identification* [italics added] with and involvement in a particular organization' (p. 27). Similarly, Meyer and Allen (1991) characterized affective organizational commitment as 'the employee's emotional attachment to, *identification* [italics added] with, and involvement in the organization' (p. 67). With identification explicitly mentioned in

these two highly cited definitions of commitment, it seems apparent how researchers have, at times, confused organizational identification and organizational commitment.

Review articles have asserted that it is identification's implication of the self-concept and perception of oneness with the organization that differentiates the construct of identification from that of commitment (Ashforth & Mael, 1989; van Dick, 2004). Mael and Ashforth (1992), for example, suggest that to identify, an individual needs to see him or herself as psychologically intertwined with the organization. Dutton et al. (1994) characterized identification as 'a cognitive linking between the definition of the organization and the definition of self' (p. 242). Thus, identification is argued to contribute to member's definition of 'Who am I' in terms of the organization in which he or she belongs and, subsequently, this is incorporated into the self-concept (Mael & Ashforth, 1992). Commitment, on the other hand, is believed to be a more general attitude toward the organization. In addition, it has also been suggested that identification and commitment develop from different sources. Whereas identification is theorized to develop on the basis of shared fate, commitment is believed to develop on the basis of an exchange-based relationship between the individual and the organization (Mael & Ashforth, 1992; Pratt, 1998).

Despite increasing research that has argued OI strength, identification, and commitment are theoretically dissimilar, empirical studies typically report moderate to strong correlations between the constructs. For example, Kreiner and Ashforth (2004) indicated that OI strength and identification are moderately correlated ($r = 0.40$). Identification and commitment measures are often reported as being strongly correlated, ranging from the 0.50s to as high as 0.70s (Riketta, 2005; van Dick, 2004), which suggests a considerable amount of overlap between the two constructs. Therefore, if the measures used to reflect the constructs are not shown to be empirically distinct, researchers are confronted with a measurement issue that cannot be resolved by simply insisting they are conceptually distinct constructs.

As noted earlier, three published studies were located that specifically tested the discriminant validity of identification and commitment. Mael and Tetrick (1992), using a sample of undergraduates, employed confirmatory factor analyses to show that identification and commitment were empirically distinct constructs. In their study, they reported a correlation of 0.77 between identification and Porter, Steers, Mowday, and Boulian's (1974) commitment measure. In the second study, Gautam et al. (2004) collected data from employees of five Nepalese organizations and demonstrated that identification was empirically distinguishable from four organizational commitment measures. Considered together with the amount of unshared variance between identification and the commitment variables (roughly 50 per cent), Gautam et al. concluded identification was correlated with, but empirically distinct from commitment. In the third study, van Knippenberg and Sleebos (2006) collected data from Dutch university faculty to further explore the differences between identification and commitment. Consistent with the two earlier studies, van Knippenberg and Sleebos used confirmatory factor analysis to demonstrate that identification and commitment were empirically distinct constructs. In addition, the researchers found that identification was uniquely correlated (controlling for commitment) with a self-referential aspect of organizational membership, and commitment was uniquely correlated (controlling for identification) to perceived organizational support, job satisfaction, and turnover intention.

In searching the literature, we were unable to locate a single study that has assessed the empirical distinctiveness of OI strength, identification, and commitment. Based on the above discussion, however, we conclude that OI strength, identification, and commitment are theoretically and empirically unique constructs. Therefore, we propose:

Hypothesis 1: Individuals are able to simultaneously distinguish among organizational identity strength, organizational identification, and organizational commitment. Specifically, we predict that the manifest indicators of the variables will load on their respective latent factors.

Conceptual equivalence among hierarchical levels

It is generally agreed that organizations provide employees with multiple group memberships. Further, because employees are provided with multiple membership opportunities, researchers are increasingly questioning which foci are most relevant for individuals and their employing organizations (e.g., Becker et al., 1996; van Knippenberg & van Schie, 2000). Whereas much of this research has focused on the workgroup or the organization (e.g., Riketta & van Dick, 2005), the following illustrates a number of considerations that suggest hierarchical level may also be perceived as a salient social category by employees.

Developments in self-categorization theory, in particular, have elaborated on the more immediate social contextual factors believed to influence how individuals classify themselves as members of a social group (see Pratt, 1998, for a review). According to self-categorization theory, individuals are more likely to view themselves as members of a social group when the social context makes salient other groups (e.g., van Dick, Wagner, Stellmacher, & Christ, 2005). When applied to the organization, self-categorization theory suggests that the visible boundaries created by an organization's formal hierarchy will increase the chances of individuals perceiving their hierarchical level as a salient social category. With the salience of group membership determined, individuals then assess their fit with that social category. In doing so, individuals choose comparison targets and interaction partners who see them as they see themselves (Banaji & Prentice, 1994). That is, individuals tend to adopt the category that maximizes the similarities and differences between people within the social context (i.e., ingroup vs. outgroup boundaries). Therefore, a hierarchical level will be construed as a social category if members within that level are perceived as being more similar with each other than they are with nonmembers. Consider the following example. In terms of work performed, a senior level executive will always have more in common with other senior level executives of the organization than a shop floor or production employee.

On the basis of these considerations, it can be assumed that hierarchical level is a salient social category that individuals might invoke when forming social groups. Organizational behavior research linking hierarchy with the focal constructs is scant; however, some indirect evidence does exist. Employing interview-, documentation-, and observation-based data, Corley (2004) found striking differences between how senior leader, middle-management, and employee groups perceived who the organization was, where it was going, and what organizational characteristics were most important in answering these questions. Based on his findings, Corley (2004) concluded that each hierarchical level had a different impression of what the organization's identity consisted of and even of its basic nature (p. 1159).

By extension, if identity differentiation can indeed occur among different levels of an organization's hierarchy (e.g., Corley, 2004), a critical issue that arises is whether these distinct social groups hold parallel frames of reference with regard to OI strength, identification, and commitment. The basic assumption here is that the perceptions and behaviors of individuals often differ among social categories (Ellemers et al., 2002). Because survey measures are designed to tap some aspect of the work experience, it cannot be assumed that employees from different social categories will respond to the items of a given measure using the same construct definition. Thus, it is possible that members of different hierarchical levels will not share a conceptual frame of reference with regard to OI strength, identification, and commitment. The rationale for such a psychometric focus lies in the fact that it is a moot point to test theoretical relationships across the hierarchical groups unless the measures operationalizing the focal constructs exhibit measurement equivalence across the comparison groups (cf. Cheung & Rensvold, 2002; Vandenberg, 2002). The measurement equivalence assumptions are tested within a null hypothesis framework (Cheung & Rensvold, 2002). Therefore, we propose:

Hypothesis 2: The measures used to assess organizational identity strength, organizational identification, and organizational commitment will exhibit measurement equivalence across the officer, middle-management, and worker samples. Specifically, the null hypothesis of scalar equivalence is predicted, whereby the intercepts of like items' regressions will be the same across each subsample.

OI strength, identification, commitment, and turnover intention

Because studies have reported moderate to strong correlations between OI strength and identification (Kreiner & Ashforth, 2004) and between identification and commitment (van Dick, 2004), researchers may still call into question each focal variable's ability to correlate with criteria in unique and predictable ways. It should be noted, however, that being highly related does not necessarily mean they are the *same* construct (cf. Mathieu & Farr, 1991). In an attempt to partially address this issue, Riketta (2005) conducted a meta-analysis on identification and its correlates and compared these findings with past meta-analytic results concerning commitment. Riketta (2005) observed that despite the overlap in shared variance, identification proved to be distinct from commitment with respect to its correlates. We could find no empirical examination that explored the similarities and differences between OI strength, identification, and commitment and their correlates. Hence, it is still unclear whether or not empirical distinctiveness matters in the prediction of important outcomes.

To examine this further, we investigated the correlations between the three focal constructs and turnover intention. Turnover intention was chosen because it is relevant for organizations and OI strength, identification, and commitment could each be expected to negatively associate with it. Research by Milliken (1990) and Gioia and Thomas (1996) suggested that strong OI perceptions act as a perceptual screen that can influence individuals' processing and interpretation of information. In Milliken's (1990) study, for example, university administrators who perceived their organization as having a strong identity tended to be more certain that the university could endure and respond effectively to environmental changes. Similarly, strong OI perceptions could be expected to shield members from construing problematic events as being problematic, which might otherwise increase one's intention of quitting the organization. With regard to identification and commitment, meta-analytic studies have reported both constructs to exhibit strong, negative correlations with turnover intention (e.g., Meyer et al., 2002; Riketta, 2005).

Given that employees are believed to use hierarchical level as a social category to differentiate ingroup and outgroup members, one may also speculate on the consequence group membership might have on relations between the focal constructs and turnover intention. Corley's (2004) study is, to our knowledge, the only study that has explicitly examined hierarchy and its impact on organizational identity perceptions. For our purposes, however, the major limitations of Corley's work is that it focused on individuals' perceptions of the identity content, and he did not attempt to link these perceptions to outcome variables, such as turnover intention. As a next step, we contend that it would be useful to determine if hierarchy can attenuate or accentuate the expected negative relationship between OI strength and intended turnover. A similar contention is made regarding the influence of hierarchical differentiation on the relations between identification and commitment and turnover intention.

On the basis of Corley's (2004) observations, when hierarchical level is considered as a salient social category, we suspect that it will have an influence on the extent to which individuals' OI strength, identification, and commitment relate to turnover intention. An alternative way of expressing this is in terms of structural equation modeling vocabulary. According to Kline (1998), the main question of multigroup confirmatory factor analysis is 'do estimates of model parameters vary across groups? . . . that is, does group membership moderate the relations specified in the model?' (pp. 180–181). Given the dearth

of published research that demonstrates the effect of hierarchy differentiation on the expected relationships, this analysis is largely exploratory. Hence, the following research question is posed:

Research Question 1: Do organizational identity strength, organizational identification, or organizational commitment differentially relate to turnover intentions across hierarchical groups?

Organizational Context

State of the Indian Economy

India has some of the lowest human development indicators in the world, particularly within rural/farming areas. For example, of India's more than one billion inhabitants, 40 per cent live below the poverty line of 1 US dollar a day (Himani, 2004). In 2003, the gross domestic product (GDP) per capita at Purchasing Power Parity (PPP) for India was \$ 2909. As a comparison, in 2003, the United States' gross domestic product (GDP) per capita at Purchasing Power Parity (PPP) was \$37 352 (Earthtrends website, retrieved January 17, 2006). Economic reforms launched in the 1990s, however, have helped to strengthen economic growth levels. Since 1994, India has experienced an average growth rate of 6.8 per cent. For 2004, India experienced a growth rate of 6.2 per cent (Central Intelligence Agency World Factbook website, 2006, retrieved January 17, 2006).

Jamshedpur—the City

Jamshedpur, as the growing township was named in 1919 in tribute to Tata Steel's Founder, is India's first planned industrial city. Currently, Jamshedpur is managed by the Jamshedpur Utilities and Services Company, a 100 per cent subsidiary of Tata Steel. Unlike many other Indian cities, rural communities within a 30 km radius of Jamshedpur are served by Tata Steel's Community Development and Social Welfare Department. Tata Steel's perspective is that the surrounding communities of Jamshedpur are an important stakeholder group and, on this basis, the organization invests heavily to serve (e.g., health care, cultural development) and educate (e.g., vocational training, women empowerment programs) both children and adults. As a consequence, Jamshedpur enjoys a literacy rate (73.5 per cent) that is considerably higher than the national average of 59.5 per cent. In March 2004, Jamshedpur was chosen as the first South Asian city to join the United Nations Global Compact Cities Pilot Program. The principle objective of this project is to develop solutions that address intractable social, economic, and environmental issues experienced in an urban context; with the hope of validating a model other urban cities may apply as a template.

The Time Frame

The data used in the current research effort were collected in October 2004.

The Organization

Tata Steel is Asia's first and India's largest private sector integrated steel manufacturer. Tata Steel was founded in 1907 in the jungle of India, 200 kilometers west of Kolkata and started steel production in 1911. In the 1980s, after a long phase of stability, Tata Steel began to prepare for deregulation of the steel industry by modernizing its steel production processes. The new technologies incorporated were less labor intensive; however, not a single employee was terminated. In fact, over the years an informal commitment had emerged between Tata Steel and its employees. One child of any employee who had been employed by the company for 25 years or

more would automatically be offered a job, irrespective of whether the company needed them or not. Moreover, due to the founders' philanthropic vision, Tata Steel had introduced over the years many firsts in employee welfare and fought for their integration into Indian law (e.g., 8-hour work day, maternity benefits). The company also developed and continues to run an extensive, private sector employee system known as 'Town Services' consisting of, for example, rural and community development activities (such as, building parks, bridges, and roads). Moreover, Town Services also provide services such as hospitals, street cleaning, civil construction, and the running of 27 schools and one college with 30 000 students—all of which are children of Tata Steel employees.

Method

Procedures

Data were collected over a 2-week time frame from employees located in India. Of the 43 000 company employees, 13 000 were selected at random and invited to participate in the current study. All participants were guaranteed complete anonymity. In total, 10 948 employees completed the questionnaire for a response rate of 84 per cent.

The organization was aware that not all employees are able to comprehend the English language. To overcome this obstacle in previous employee opinion surveys, the organization developed an approach, whereby survey questionnaires were designed as a 'dual-language' document. For instance, the cover page and any directions provided throughout a questionnaire were provided in English and Hindi. And, more importantly, for each survey item the statement was first provided in English and directly below it, the identical item was provided in Hindi. Because employees were familiar with this questionnaire format, it was adopted and used in the current research. A double-blind back-translation strategy was followed when translating the items from English to Hindi. Example items can be obtained by contacting the principal author.

Sample

Respondents were primarily male (96 per cent); were between the ages of 26 and 50 (78 per cent) and; reported an organizational tenure of more than 5 years (94 per cent). Respondents' work functions included: maintenance—29 per cent, operations—36 per cent, services—31 per cent, and administrative—3 per cent. As we expected, there was considerable variability in respondents' hierarchical level: officers—11 per cent, middle-management—11 per cent, and operational workers—78 per cent. Officers consisted of the CEO, the top-management team, and other senior level executives. Their day-to-day responsibilities included managing the organization's strategic aspects. Middle-management consisted of mid-level managers and supervisors whose responsibilities included planning and coordinating the achievement of the executive level strategy, and directing followers in their day-to-day tasks. The worker group reflects non-management employees responsible for the completion of daily business routines.

Measures

Responses were measured using the same 5-point response scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

Organizational identity strength

Following Gioia and Thomas (1996), we assessed respondents' perceived organizational identity by adapting Milliken's (1990) six-item strength-of-identity measure. An example item includes 'To what extent do members of [company name] have a strong sense of [company name] history and traditions.' The internal consistency estimate was 0.77.

Organizational identification

We assessed identification with Mael and Ashforth's (1992) six-item identification measure. Riketta (2005) recently observed that the Mael and Ashforth measure is the most frequently used measure of identification, in part, because its items do not overlap with items from Porter et al.'s (1974) commitment questionnaire. Moreover, van Dick (2004) noted the Mael and Ashforth measure represents the core of social identification theory. An example item includes 'When someone criticizes [company name], it feels like a personal insult.' The internal consistency estimate was 0.76.

Organizational commitment

We assessed organizational commitment using six items from Porter et al.'s (1974) commitment measure. Porter et al.'s measure (or modified shorter versions) is the most frequently reported measure of commitment in organizational behavior studies (Mathieu & Zajac, 1990). An example item is 'I am proud to tell others that I am a part of [company name].' The internal consistency estimate was 0.77.

Turnover intention

We assessed turnover intention using a three-item measure developed by Konovsky and Cropanzano (1991). More recent validity evidence for this measure can be found in Grandey and Cropanzano (1999) and Randall, Cropanzano, Bormann, and Birjulin (1999). Items are 'I intend to look for a job outside of [company name] within the next year,' 'I intend to remain with this [company name] indefinitely' (reverse-scored), and 'I often think about quitting my job at [company name].' In the current analysis, there was evidence that the reverse-scored item contributed to the unreliability of the measure (i.e., attenuated coefficient alpha). As a result, this item was dropped from further analyses. The correlation between the two items was $r = 0.56$, $p < 0.001$.

Analyses

The data analyses were performed in three phases and AMOS 4.0 was used to conduct each analysis. We utilized the full-information maximum likelihood (FIML) technique to impute missing values. FIML is superior to other imputation techniques as it gives unbiased estimates of means, variances, and other parameters (Arbuckle, 1996; Byrne, 2001; Wothke, 2000). When appropriate, we report three practical fit indices used to assess overall model fit: (a) the Comparative Fit Index (CFI), which compares how much better an implied model fits as compared to a null model; (b) the Tucker-Lewis Index (TLI), which contains a penalty for lack of parsimony; and (c) the Root Mean Square Error of Approximation (RMSEA), which adjusts for both sample size and number of degrees of freedom, and its confidence intervals (LO90 and HI90).

In *Phase 1*, we investigated the discriminant validity of OI strength, identification, and commitment. Using confirmatory factor analysis, five measurement models were estimated to test whether OI strength, identification, and commitment are empirically distinguishable (for a recent example that clearly outlines this procedure, see Chen, Gully, & Eden, 2001). Chi-square difference tests determined whether the nested measurement models were significantly different from the hypothesized measurement model in which all three factors were free to covary.

In *Phase 2*, we used multigroup confirmatory factor analysis to test the measurement equivalence of OI strength, identification, and commitment across the three hierarchical levels. Because of the variability in the size of the hierarchical subsamples, we used a random number generator to select respondents from the worker sample to obtain nearly identical sample sizes across the three hierarchical groups. This was necessary so that the multigroup data analyses (i.e., phases 2 and 3) would not be biased by disparate standard errors when parameters are freely estimated across the subsamples. Accordingly, officer ($n = 1056$), middle-management ($n = 1049$), and worker ($n = 1050$) subsamples were used in these analyses.

Detailed reviews of the various tests used to assess measurement equivalence (alternatively known as measurement invariance) can be found in Vandenberg and Lance (2000) and Vandenberg (2002). For the purposes of the current study, measurement equivalence was defined as equal item intercepts (i.e., scalar equivalence) across groups. As a result of our decision, it was necessary to test three nested models in order to determine if (a) configural, (b) metric, and finally, (c) scalar equivalence was supported for each measure. Until recently, the chi-square difference test was the procedure most commonly used by researchers to evaluate the fit of increasingly restrictive multigroup confirmatory factor analysis models. The chi-square difference test, however, was found to be overly sensitive when evaluating the statistical fit of nested models which included additional equality constraints (Cheung & Rensvold, 2002). To address this issue, Cheung and Rensvold (2002) conducted a simulation study to assess differences in practical goodness-of-fit indices under the null hypothesis of measurement equivalence. Results demonstrated the change in the comparative fit index (ΔCFI) was a robust fit statistic when testing increasingly restrictive multigroup confirmatory factor analysis models. Based on their findings, Cheung and Rensvold (2002) recommended the ΔCFI as the best statistic to use when assessing measurement equivalence across multiple groups. Moreover, they reported a value of ΔCFI smaller than or equal to -0.01 indicates that a null hypothesis of equivalence should *not* be rejected. In the present study, we applied Cheung and Rensvold's ΔCFI critical value of -0.01 in our measurement equivalence analyses.

In *Phase 3*, we developed a multigroup structural model whereby the path parameters between turnover intention and each of the focal constructs (OI strength, identification, and commitment) were simultaneously estimated for each hierarchical group. In this structural model, the three exogenous variables (OI strength, identification, and commitment) were allowed to covary.

Results

Table 1 presents the means, standard deviations, and intercorrelations among the study variables for each hierarchical group. Relative to the scale midpoint of 3 (*neutral*), the samples' means for the focal variables were quite high and the mean for turnover intention was quite low. The zero-order correlations indicated that OI strength, identification, and commitment were positively correlated with one another and each focal variable was negatively correlated with turnover intention, as expected.

Phase 1: Discriminant validity tests

Hypothesis 1 stated employees would be able to distinguish among the concepts of OI strength, identification, and commitment. To test *Hypothesis 1*, we compared the fit of five measurement models using confirmatory factor analysis. The hypothesized model fit the data well, $\chi^2(132) = 3562.00$, $p < 0.001$; CFI = 0.994, TLI = 0.992, RMSEA = 0.049 and its 90 per cent confidence interval (0.047–

Table 1. Means, standard deviations, and correlations for all variables

| Variable | <i>M</i> | <i>SD</i> | <i>r</i> | | |
|-------------------------------------|----------|-----------|----------|-------|-------|
| | | | 1 | 2 | 3 |
| Officer subsample: | | | | | |
| 1. Organizational identity strength | 4.20 | 0.56 | | | |
| 2. Organizational identification | 4.26 | 0.55 | 0.36 | | |
| 3. Organizational commitment | 4.06 | 0.59 | 0.32 | 0.45 | |
| 4. Turnover intention | 2.24 | 0.96 | -0.21 | -0.20 | -0.31 |
| Middle-management subsample: | | | | | |
| 1. Organizational identity strength | 4.05 | 0.69 | | | |
| 2. Organizational identification | 3.97 | 0.79 | 0.51 | | |
| 3. Organizational commitment | 4.10 | 0.77 | 0.49 | 0.71 | |
| 4. Turnover intention | 2.20 | 1.21 | -0.30 | -0.28 | -0.31 |
| Worker subsample: | | | | | |
| 1. Organizational identity strength | 4.08 | 0.72 | | | |
| 2. Organizational identification | 4.02 | 0.73 | 0.53 | | |
| 3. Organizational commitment | 4.11 | 0.74 | 0.52 | 0.67 | |
| 4. Turnover intention | 2.36 | 1.27 | -0.27 | -0.28 | -0.24 |

Note: Officer $n = 1034$ – 1049 . Middle-management $n = 966$ – 1014 . Worker $n = 999$ – 1017 . All correlations are significant at the 0.01 level.

0.050). Next, we tested four alternative models where certain measures were set to correlate at 1.0. Shown in Table 2, chi-square difference tests indicated that the hypothesized three-factor model fit the data significantly better ($p < 0.01$) than any of the four alternative models. For example, setting the correlation between identification and commitment factors to 1.0 resulted in a significant decrement in model fit as compared to the hypothesized model in which the correlation between these factors was freely estimated, $\Delta\chi^2_{(1)} = 2,003.04$, $p < 0.01$. These results demonstrate that OI strength, identification, and commitment are empirically distinct factors.¹ We therefore concluded that Hypothesis 1 was supported.

Phase 2: Measurement equivalence tests

Hypothesis 2 predicted that the null hypothesis of measurement equivalence would be supported for the individual measures developed to tap organizational members' OI strength, identification, and commitment. Specifically, we assessed scalar equivalence, whereby the intercepts of like items' regressions were predicted to be equivalent for the officer, middle-management, and worker groups. Results of the multigroup confirmatory factor analyses to assess measurement equivalence are presented in Table 3.

As shown in Table 3, we first examined the configural equivalence of each focal measure. Given that the practical fit indices were within acceptable ranges, we concluded that each measure was configurally equivalent. Next, we proceeded to test the more restrictive models of metric and scalar equivalence. A comparison of the CFI values for the constrained models against the baseline models established in the configural equivalence analysis indicated that there were no instances of model degradation when the

¹We also tested Hypothesis 1 on the restricted sample ($n = 3155$) used in phases 2 and 3. As expected, the hypothesized three-factor model fit the data significantly better than any of the four alternative models. Results can be obtained by contacting the principal author.

Table 2. Comparison of confirmatory factor analysis models for discriminant validity

| Measurement Model | χ^2 | df | $\Delta\chi^2$ (df) |
|---------------------------------|----------|-----|---------------------|
| Hypothesized model ^a | 3562.00 | 132 | |
| Two-factor model 1 ^b | 6576.05 | 133 | 3014.05(1)** |
| Two-factor model 2 ^c | 6335.15 | 133 | 2773.15(1)** |
| Two-factor model 3 ^d | 5565.04 | 133 | 2003.04(1)** |
| One-factor model ^e | 7074.88 | 135 | 3512.88(3)** |

Note: N = 10948.

**p < 0.01.

^aAll three variables allowed to freely correlate.

^bOI strength and organizational commitment correlate at 1.0

^cOI strength and organizational identification correlate at 1.0.

^dOrganizational identification and organizational commitment correlate at 1.0.

^eOI strength, organizational identification, and organizational commitment all correlate at 1.0.

more restricted models were fit to the data. With the null hypothesis of measurement equivalence (*Hypothesis 2*) supported, we can assert that respondents' conceptual frame of reference across hierarchical levels was comparable and like items had the same operational definition.

Phase 3: Correlations to turnover intention

Our Research Question speculated whether OI strength, identification, and commitment would differentially relate with turnover intention across the hierarchical groups. Whereas earlier analyses were conducted on measurement models, in phase 3 we examined the overall fit of a multigroup structural model and, more importantly, the estimated path parameters between the focal constructs and turnover intention. Fit indices indicated that the overall model demonstrated a good fit, $\chi^2(564) = 2891.28$, $p < 0.001$; CFI = 0.987, TLI = 0.986, RMSEA = 0.036 (90 per cent CIs = 0.035–0.037). The standardized regression weights for the officer, middle-management, and worker groups are reported in Figure 1. For clarity, a simplified structural model is shown.

Inspecting the standardized regression weights reveals a differential pattern of correlations among the hierarchical groups. Regarding the officer group, OI strength ($p < 0.05$) and commitment ($p < 0.01$)

Table 3. Goodness-of-fit tests for the multigroup confirmatory factor analyses for measurement equivalence

| Instrument | χ^2 | df | CFI | TLI | RMSEA | RMSEA 90% Confidence Intervals |
|-----------------------------------|----------|----|-------|-------|-------|--------------------------------|
| Configural—equal factor structure | | | | | | |
| Organizational identity strength | 422.61 | 27 | 0.993 | 0.984 | 0.068 | 0.063–0.074 |
| Organizational identification | 347.48 | 27 | 0.994 | 0.986 | 0.061 | 0.056–0.067 |
| Organizational commitment | 263.87 | 27 | 0.996 | 0.990 | 0.053 | 0.047–0.059 |
| Metric—equal factor loadings | | | | | | |
| Organizational identity strength | 462.37 | 37 | 0.993 | 0.987 | 0.060 | 0.056–0.065 |
| Organizational identification | 390.36 | 37 | 0.994 | 0.989 | 0.055 | 0.050–0.060 |
| Organizational commitment | 285.61 | 37 | 0.996 | 0.992 | 0.046 | 0.041–0.051 |
| Scalar—equal intercepts | | | | | | |
| Organizational identity strength | 526.25 | 49 | 0.992 | 0.989 | 0.056 | 0.051–0.060 |
| Organizational identification | 571.47 | 49 | 0.991 | 0.988 | 0.058 | 0.054–0.062 |
| Organizational commitment | 840.47 | 49 | 0.986 | 0.982 | 0.072 | 0.067–0.076 |

Note: CFI = Confirmatory fit index; TLI = Tucker-Lewis index; RMSEA = Root mean error of approximation.

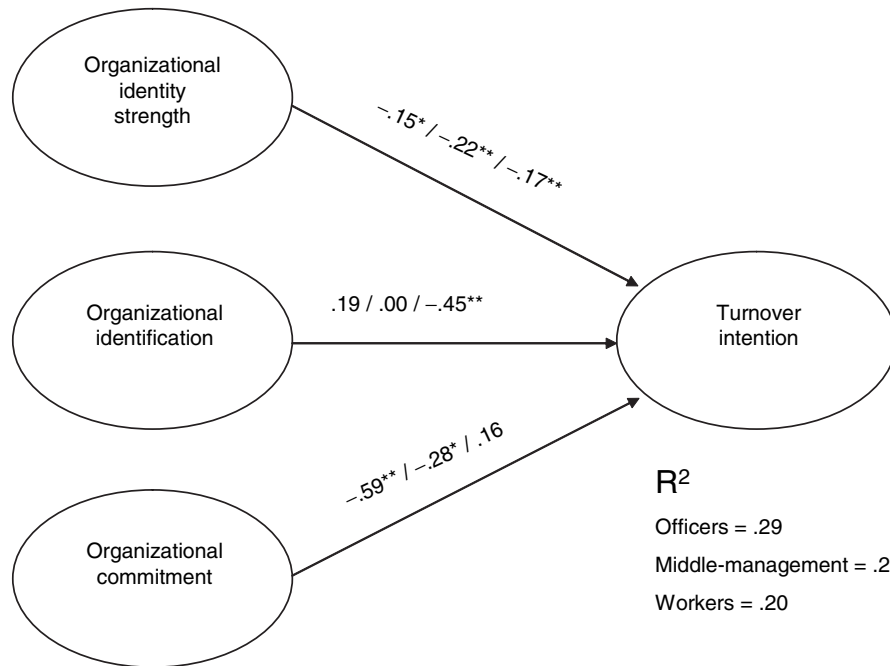


Figure 1. Simplified structural model. Standardized regression weights appear for officer, middle-management, and worker, respectively. * $p < 0.05$; ** $p < 0.01$

were negatively correlated with turnover intention. The correlation between identification and turnover intention was not significant ($p = \text{n.s.}$) for the officer group. For the middle-management group, both OI strength ($p < 0.01$) and commitment ($p < 0.05$) were negatively correlated with turnover intention. Identification, however, was also not related to middle-management's turnover intentions ($p = \text{n.s.}$). Finally, in the worker group, both OI strength and identification were negatively correlated ($p < 0.01$) with turnover intention. The relation between workers' commitment and turnover intention did not reach statistical significance.

In general, our results demonstrated that OI strength, identification, and commitment differentially relate to turnover intention when considering employees' hierarchical level.² To summarize, OI strength was negatively correlated with turnover intention in each of the three hierarchical groups. Commitment was negatively correlated with turnover intention in two groups (officers, middle-management). Identification was negatively correlated with turnover intention, but only in the worker

²At the request of an anonymous reviewer, we explored the possibility that an uneven distribution of job functions across the hierarchical levels represented a study confound that, consequently, might lead to a misinterpretation of the study results with regard to turnover intention. To determine if hierarchical level was confounded by job function, we included both variables in a regression equation and tested for significant differences in function's unstandardized betas across the hierarchical samples (cf. Aiken & West, 1991). First, we pooled the three samples into one large sample and computed dummy coded variables to represent the hierarchical levels and job functions. Then, we computed the cross-products between the hierarchical level and job function dummy variables. Finally, we regressed turnover intention on the dummy coded variables (hierarchical level and function main effects) and their interactions. The main effects and interaction terms were entered in sequential steps and the cross-product terms were mean-centered to help control for multicollinearity (Aiken & West, 1991). Results demonstrated that job function's main effects ($\Delta R^2 = 0.001$, $p = \text{n.s.}$) and the two-way cross-product terms ($\Delta R^2 = 0.004$, $p = \text{n.s.}$) failed to account for unique variance in turnover intention. Based on this result, we concluded that distribution of job functions across hierarchical levels was not a confound in our study design and, consequently, it did not contaminate our study results.

group. The structural model accounted for 29, 21, and 20 per cent of the variance (R^2) in turnover intentions for the officer, middle-management, and worker groups respectively.

Discussion

In the first phase of the present study, we used confirmatory factor analysis to assess the discriminant validity of the individual measures. With a few notable exceptions, previous empirical research has not adequately investigated the empirical distinctiveness of identification and commitment. The current analysis extended this research by assessing the uniqueness of OI strength as well as identification and commitment. Consistent with Hypothesis 1, the individual measures developed to tap member's OI strength, identification, and commitment were found to be empirically unique and, thus, provide support for their discriminant validity.

The second phase of the present study used multigroup confirmatory factor analysis to investigate the measurement equivalence of the individual measures across the hierarchical groups. The importance of conceptual equivalence cannot be underestimated as it reflects the extent to which a construct can be meaningfully discussed within each hierarchical group and has a similar meaning across groups (Cheung & Rensvold, 2002; Vandenberg, 2002). As predicted by Hypothesis 2, the null hypothesis of measurement (scalar) equivalence was supported. With scalar equivalence established, we conclude that each measure had the same operational definition across the three hierarchical groups (cf. Vandenberg, 2002). Consequently, we are much more confident that the observed correlation patterns in phase three were due to the phenomenon of interest (i.e., hierarchy) and, not due to some measurement artifact, because the between-group correlations were not confounded by scale differences (i.e., each item of a measure has equivalent intervals and zero points).

The third phase of the present analysis estimated a multigroup structural model in which turnover intention was predicted by OI strength, identification, and commitment. Although the reported results cannot be interpreted to indicate causality due to our cross-sectional design, we would like to briefly highlight a few of the more interesting, albeit exploratory, findings. First, in each hierarchical group, our structural model accounted for a significant amount of variability in turnover intention, ranging between 20 per cent for the worker group and 29 per cent for the officer group. With most withdrawal models considering turnover intention to directly precede actual turnover behavior and empirical studies confirming this linkage (e.g., Griffeth, Hom, & Gaertner, 2000), our results provide general support for Foreman and Whetten's (2002) conclusion that identity-based models are a powerful means for explaining many aspects of organizational behavior.

Second, this is one of the first studies to respond to Corley's (2004) entreaty for researchers to investigate the impact of hierarchical differentiation on organizational identity perceptions and individual-level processes. In this regard, our results demonstrate that group membership based on hierarchy can affect the relationships between turnover intention and OI strength, identification, and commitment. Of the focal constructs, OI strength was the only variable to negatively correlate with turnover intentions for each level of Tata Steel's hierarchy. For officers and middle-management, sentiments of feeling affectively attached to the organization (i.e., commitment) similarly decreased their interests in seeking other employment. If we consider the demands placed on and energy expended by individuals in leadership roles, this finding appears to be consistent with social exchange theory. For instance, relative to individuals in economic-based relationships (e.g., workers), individuals in social exchange relationships are more likely to make sacrifices for the exchange partner's benefit. Furthermore, in exchange for such sacrifices, social exchange relationships typically involve less

tangible and more symbolic and socio-emotional rewards (e.g., recognition, esteem). Thus, to the extent that the social exchanges between officers and the organization and middle-management and the organization were commensurately reciprocated, we suspect that officers and middle-management decided to “give back” by becoming increasingly committed to the organization and, as a result of this commitment, their intentions to quit the organization were lessened (cf. Mowday et al., 1982). In contrast, commitment at lower hierarchical levels (non-management employees) did not influence workers’ desire to remain or leave the organization. Here, it was individuals’ personal belief of being psychologically intertwined with the organization that correlated with workers’ turnover intentions.

Because the worker sample was comprised of non-management, low-level employees (shop floor, production, etc.), we assume that they enjoy little status within, and possibly even outside, the organization. If our assumption is correct, workers’ identification with Tata Steel, and its reputation, vision, and values, would be expected to positively enhance their self-concept and psychological well-being. This is consistent with Pratt (1998), who suggested individuals identify with an organization to find meaning and a sense of purpose in one’s life. Moreover, as Haslam (2004) has indicated, “when a person identifies strongly with a given organization, he or she may more readily interpret the world, and his or her own place within it, in a manner consistent with that organization’s values, ideology and culture” (p. 36). By extension, the more workers identified with the organization, the more likely they were to ascribe to themselves characteristics typical of the organization and, therefore, leaving it would involve some psychic loss (cf. Ashforth & Mael, 1989). To the extent that future research can replicate the present study’s findings, implications for theorizing on hierarchical status and its influence on organizational identity, identification, and commitment may be realized.

Practical implications

From practitioners’ perspectives, understanding how employees reach decisions to stay or quit an organization is an important and valuable insight into employee behavior. Although previously explained using a variety of frameworks (e.g., Griffeth et al., 2000; Lee, Mitchell, Holthom, McDaniel, & Hill, 1999), the psychological processes that underlie turnover intention are far from being completely clear (Steel, 2002; van Dick et al., 2004a). Additional research is needed before firm conclusions are drawn; however, the present findings suggest perceptions of a strong organizational identity, identification, and commitment may influence employees’ turnover intention in unique ways, depending on their hierarchical level within the organization.

In addition, many discussions by organizational identity theorists have focused on the practical implications of organizational identification. Identification was found to exhibit a negative relationship to turnover intention in the present study, but only for the worker group. Because identification has been shown to relate to a number of positive outcomes (Ricketta, 2005), we agree that leaders as well as managers should be made more aware of this important construct. Strategies for fostering identification, which include placing a greater emphasis on the organization’s identity, have been discussed (e.g., Rousseau, 1998; van Knippenberg, 2003). More specific recommendations by identity theorists include (a) honoring the organization’s traditions, rituals, and ceremonies that communicate and objectify the organization’s history, (b) emphasizing core values, beliefs, and behaviors that represent the organizational mission and goals, and (c) communicating stories and myths that reflect the organization’s identity. Not only will such tactics foster employee identification, our findings imply that a strong organizational identity as perceived by its members might also lower turnover intentions among management and non-managers. Hence, focused attention that is designed to foster a strong organizational identity may prove worthwhile.

Limitations and directions for future research

As in most studies, our research has limitations that need to be considered. First, the data used to estimate the structural model (Figure 1) are cross-sectional, and the results should not be interpreted as causal. Only future research that includes other types of research designs (e.g., multiple data sources, within-subjects time-lagged design) can firmly establish the causal relations implied in the present study. A second study limitation is a reliance on self-report data that may result in spurious relationships due to common-method bias. Although we cannot rule out the possibility that the observed relationships are due to measurement artifacts, the unique pattern of between-group correlations suggest that there is much more occurring than merely method effects. Moreover, because common-method bias is understood to represent a single factor, our results that demonstrate the empirical distinctiveness of the constructs further suggest method variance was not a major threat in the present analysis.

A third limitation stems from our sample, which was drawn from a single organization located in a specific geographic location. Whether the present study's findings generalize to other populations in different organizational settings or cultures is unknown. Although we can speculate that hierarchical level is important in other organizational settings and cultural contexts, future research is needed in this regard. A further study limitation involves the turnover intention variable. Despite published evidence of its reliability and validity, we found that its internal consistency estimate could be increased by eliminating the reverse-scored item. Although the negatively keyed item was designed for the control of acquiescence, empirical studies have found that reverse-scored items can reduce item validity and introduce construct irrelevant covariance (Holden & Fekken, 1990). Therefore, we omitted the problematic item. Even after eliminating the reverse-scored item, however, it should be noted that the reliability estimate remained low. A final limitation involves our specified structural model. For the purpose of the present analysis, we examined the effect of hierarchy on the relationships between the focal constructs and intended turnover. It should be noted that, although the specified model we tested was consistent with the observed data, other conceptual models might also be supported by the data. This latter concern, in particular, appears to be an important area for future research.

In this regard, researchers have noted the dearth of empirical studies designed to test identity-based models of identification (e.g., Dukerich, Golden, & Shortell, 2002; Foreman & Whetten, 2002). Having demonstrated that OI strength, identification, and commitment are unique constructs, future research should consider our conceptual model as a springboard for developing a more complete representation of antecedents and potential consequences. For example, in Meyer, Becker, and Vandenberghe's (2004) model of commitment and motivation, they contend identification is a basic mechanism leading to commitment. In turn, commitment is reported to be strongly correlated with a wide range of outcomes, including job satisfaction and turnover intention (Cooper-Hakim & Viswesvaran, 2005; Kinicki, McKee-Ryan, Schriesheim, & Carson, 2002). Thus, drawing on both past theory and research, future studies might propose and test a more complete conceptual model of identification.

Future research might also explore identification-based models that consider a wide range of behavioral outcomes, including actual turnover and in-role and extra-role behavior. Research reported by Riketta (2005) suggests, for example, that identification is a superior predictor of citizenship behavior, whereas commitment is superior in predicting in-role behavior. In developing and testing such models, the present results imply that future studies may also benefit from the inclusion of structural variables (e.g., hierarchy) as potential moderators.

A final area for future research would be to assess the various forms of organizational identification in one empirical study. Whereas the current analysis only considered 'positive' identification, Kreiner and Ashforth (2004) have recently explored the discriminant and convergent validities of an expanded model of identification that incorporates identification, disidentification, ambivalent identification, and

neutral identification. It would be interesting to know, for example, if these various forms of identification are conceptually equivalent across hierarchical levels. Moreover, Kreiner and Ashforth (2004) go on to propose the expanded model of identification may predict an array of organizational phenomena, including turnover intention. Indeed, this would be an interesting study and, as previously noted, we suspect that such a study would benefit from exploring the possible impact hierarchy might have on these predicted relationships.

Conclusion

In summary, although organizational behavior research has emphasized the importance of OI strength, identification, and commitment, to some extent it has occurred in a piecemeal manner. To our knowledge, no study has previously examined the empirical overlap among OI strength, identification, and commitment or attempted to determine if they differentially relate to job-relevant outcomes. In addition to demonstrating that the focal constructs are empirically distinct, our findings suggest that investigating the structural factors believed to influence the interpretation and perception of these constructs may ultimately lead to a better understanding of why employees behave as they do (e.g., leave the organization, engage in citizenship behaviors). Clearly, however, more research in this area is needed to explain how hierarchical differentiation works. We interpret this as an important research opportunity and look forward to future research that extends our findings.

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