Self-Categorization, Affective Commitment, and Group Self-Esteem as Distinct Aspects of Social Identity in the Organization*

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Abstract

The purpose of this study is to distinguish between cognitive, affective, and evaluative components of social identity in the organization and to show how the components instigate behaviours that benefit in-group members. A new scale for measuring cognitive organizational identification (i.e., self-categorization) is developed and compared to a leading scale. Internal consistency, convergent validity, predictive validity, and generalizability of the two scales are established on a sample of Italian (N = 409) and Korean (N = 283) workers. Next, convergent and discriminant validity for measures of organizational identification, affective commitment, and group self-esteem are demonstrated. Then two antecedents of these components of social identity are examined: organization prestige and organization stereotypes. Finally, the mediating role of the components of social identity are investigated between the antecedents and five forms of citizenship behaviours. The last three analyses are performed on the Italian (N = 409) workers. Among other findings, the results show that affective commitment and self-esteem are the primary motivators of citizenship behaviours. Moreover, cognitive identification performs as a central mediator between prestige and stereotypes on the one hand and affective commitment and self-esteem on the other hand. Identification is thus an indirect determinant of citizenship behaviours.

This study investigates social identity in a work organization. Membership in a work organization is one of the most important group affiliations a person has because it occupies more time than is spent in other groups and the person's livelihood depends on the organization's fortunes and his/her quality of role performance.

Social identity theory has been studied most often in the contexts of (a) artificial groups where people are randomly assigned to treatments (e.g., Diehl, 1990; Ellemers, Wilke, & Van Knippenberg, 1993; Tajfel, Billig, Bundy, & Flament, 1971), (b) categories where people are grouped according to such shared attributes as ethnicity, nationality, or subject major in the university (e.g., Crocker, Luhtanen, Blaine, & Broadnax, 1994; Salazar, 1983; Smith & Henry, 1996), and (c) such naturally occurring small groups as sororities (e.g., Hogg, 1996; Smith & Tyler, 1997). By contrast, we know much less about social identity in work organizations (e.g., Ouwerkerk, Ellemers, & De Gilder, 1999).

Although some theoretical work has been performed in the organization context (Ashforth & Mael, 1989, 1996; Dutton, Dukerich, & Harquail, 1994), virtually no attention has been given to the dimensions of social identity, their measurement, and their causes and effects. These topics have recently taken center stage in psychology, particularly with regard to experimentally formed groups (Ellemers, Kortekaas, & Ouwerkerk 1999). An investigation of social identity in a work organization can not only replicate and show the generalizability of recent experimental research into the dimensionality of social identity, but it can give insight into the role social identity plays in in-group favouritism and its dependence on group status and group stereotypes in a naturalistic setting, thereby contributing to the ecological validity of measures of social identity.

Organizational identification and organizational commitment are two components of one's social identity in the organization. However, researchers differ over the meaning of identification and commitment and have at times confounded the two. For example in an early influential account, Foote (1951, p. 17) defined identification as the "appropriation of and commitment to a particular identity". Likewise, a commonly adopted definition of organizational commitment maintains that it is the "relative strength of an individual's

identification with and involvement in a particular organization" (Mowday, Porter, & Steers, 1982, p. 27). Because leading theories predict that identification and commitment have consequences for organizations and their members (e.g., satisfaction, prosocial behaviours, turnover, productivity, stress), it is important to clarify exactly to what the concepts refer (e.g., Ashforth & Mael, 1989; Becker, 1992; Brown & Williams, 1984; Dutton et al., 1994; Hunt & Morgan, 1994; Mathieu & Zajac, 1990).

Recently, Ellemers et al. (1999) did much to resolve the conceptual confusion amongst different aspects of social identification. Starting with Tajfel's (1978) classic definition of social identity, Ellemers et al. (1999, p. 372) proposed that three components contribute to one's social identity: "a cognitive component (a cognitive awareness of one's membership in a social group—self-categorization), an evaluative component (a positive or negative value connotation attached to this group membership—group self-esteem), and an emotional component (a sense of emotional involvement with the group—affective commitment)". In addition to arguing for conceptual distinctions amongst the components of social identification, Ellemers et al. (1999) demonstrated that the components are empirically distinct and differentially affected by relative status and size of the group and the basis of group formation and that the affective component of identification is the main determinant of in-group favouritism.

The purpose of the present investigation roughly parallels that of Ellemers et al.'s (1999) experimental study. Specifically, our research is a field investigation of social identity in a work organization. We begin with an analysis of a leading measure of organization identification and point-out its conceptual limitations. At the same time, we propose new measures for the cognitive (i.e., self-categorization) component of identification. Next, we consider affective and evaluative aspects of social identity and discuss their differentiation from cognitive identification. Two antecedents of social identity are then addressed: organizational prestige or status and organizational stereotypes (i.e., value connotations of characteristics of the organization). Finally, we investigate how social identity influences various prosocial or benevolent behaviours (termed "citizenship" behaviours) towards organization comembers. The main hypothesis is that affective commitment to the organization and group self-esteem instigate

citizenship behaviours, and cognitive identification has indirect effects on citizenship behaviours through affective commitment and group self-esteem.

Social Identity in the Organization

Organizational identification

The most developed conceptualization of organization identification sees it as a form of social identification whereby a person comes to view him or herself as a member of a particular social entity, the organization. This happens through cognitive processes of categorization, where one forms self-categories of organizational membership and one's similarities with others in the organization, as well as dissimilarities with others in different organizations (Turner, 1985; Turner et al., 1987). Thus, Ashforth and Mael (1989, p. 21) define identification as "the perception of oneness with or belongness" to the organization, and Dutton et al. (1994, p. 242) consider identification as "the cognitive connection between the definition of an organization and the definition a person applies to him- or herself". This self-awareness or self-knowledge of belonging to an organization, then, is one way that a person achieves a social identity (Tajfel, 1978).

Indeed, as one identifies more and more with an organization, members' individual self-perceptions tend to become depersonalized such that members see themselves as interchangeable representatives of the social category that is the organization (e.g., Turner, 1985). Some researchers have construed identification with an organization in a way going beyond mere self-categorization, per se, to include implications of depersonalization. For example, Simon (1947, p. 218) proposed early-on that "(i)dentification is the process whereby the individual substitutes organizational objectives...for his own aims as the value-indices which determine his organizational decisions", and Dutton et al. (1994, p. 239) assert that identification is "the degree to which a member defines him- or herself by the same attributes that he or she believes define the organization". These perspectives go beyond interpreting identification as the knowledge or awareness of one's membership in the organization to encompass specific criteria for categorical overlap. For Simon (1947), organization members assimilate organization goals as their own, and for Dutton et al. (1994) "common attributes" form the bases for identification.

It seems important to keep separate the notion of identification as a cognitive state of self-categorization from the process of comparison of personal attributes with organization attributes. After all, self-categorization can be influenced by comparisons to people in other organizations, and by other social factors (e.g., in-group status), in addition to comparisons of self and organization attributes. Further, it is possible that self-categorization might impact affective, evaluative, and behavioural responses independent of processes of comparison between self and organization attributes. We thus believe it is important to differentiate self-categorization as a cognitive state from its antecedents and consequences.

Some confusion exists as well with respect to how organization identification should be measured. A number of scales have been developed to measure organization identification, and scales that measure social or group identification might be adapted to measure organization identification as well. Many scales include items that measure distinct aspects of identification. Brown et al.'s (1986) 10-item group identification scale yielded three factors in their study of shop floor workers, but on the basis of attributing the factors to reverse coding of a subset of items, the researchers summed all items and achieved a satisfactory Cronbach alpha (.71). Hinkle et al. (1989) adopted a number of items from the Brown et al. (1986) scale and added new items as well. Factor analysis of their 9-item scale revealed emotional, cognitive, and individual/group dimensions. Cheney (1982) derived a three dimensional identification scale measuring loyalty, similarity, and membership, which Barker and Tompkins (1994) used to measure identification with "team work" (14-items) and with "the larger organization" (19-items). Karasawa (1991) designed a two dimensional 6-item scale measuring identification with school, as reflected in group membership and other group members. Group membership was divided into items measuring cognitive and affective aspects of identification, where, however, the affective and cognitive items loaded on one factor.

We desired to develop a simple, parsimonious scale for measuring organizational identification, particularly the cognitive state of self-categorization. Our 2-item scale consists of a largely visual item (see Figure 3) and a verbal item. The former asks respondents to directly express their felt degree of overlap between their own identity and the organization's identity. A

somewhat similar approach has been taken to measure the notion of self-extension, where a person incorporates other people into one's self-concept (e.g., Aron, Aron, & Smollan, 1992, p. 597). Dukerich, Golden, and Shortell (1995) used our visual measure in a study of physician's identification with a health care system and found that it correlated .65 with a leading scale (discussed below). However, because correlational methods were used and only the single visual item was employed, it is likely that measurement error produced an estimated correlation lower than the true correlation. The verbal measure of cognitive identification we propose asks respondents to indicate the degree to which their self-image overlaps with that of the organization's image on a 7-point item (see Method for discussion of the visual and verbal measures of identification).

To examine the measurement properties and generalizability of the two measures of cognitive identification, we employ confirmatory factor analysis (CFA). This permits us to determine the degree of correspondence between items and a hypothesized latent variable representing organization identification. The convergent validity of the measures can be ascertained as well by comparing the proposed scale to an established scale. The use of CFA is also one way to do this. The established scale we chose is Mael's (1988) 6-item organization identification scale, a unidimensional instrument used by a number of researchers in either the full (e.g., Ashforth, Saks, & Lee, 1998; Bhattacharya, Rao, & Glynn, 1995; Dukerich et al., 1995; Mael & Ashforth, 1992) or modified 5-item (e.g., Becker, 1992; Becker & Billings, 1993; Becker et al., 1996; Mael & Alderks, 1993; Mael & Ashforth, 1995) form.

Although Mael's (1988) scale measures overall organization identification and seems adequate as a rough standard for establishing convergent validity of our proposed scale, it is important to acknowledge that it measures more than awareness of one's membership in the organization and includes potential causes, effects, and correlates of identification. For example, three items in the scale reflect emotional responses that members might have when the organization is attacked or glorified: "When someone criticizes [organization], it feels like a personal insult", "When someone praises [organization], it feels like a personal compliment", and "If a story in the media criticized [organization], I would feel embarrassed". Emotional

responses to one's membership in an organization might be better interpreted as an aspect of attachment or affective commitment, as we argue below. Two other items in the Mael scale appear to measure variables that can shape or impact one's identification: "I am very interested in what others think about [organization]" and "This [organization's] successes are my successes". Only one item in Mael's scale might be considered a measure of self-categorization: "When I talk about [organization], I usually say 'we' rather then 'they'". But it might be argued that even this item is as much a reflection or consequence of self-categorization as it is a measure of the central meaning of awareness of one's membership, per se.

The items in the Mael (1988) scale have consistently loaded on a single factor in the studies cited above. A drawback with using a scale that includes indicators of causes, effects, and correlates of identification in a single-factored scale is that it is difficult to rule-out circular reasoning when testing substantive hypotheses relating the scale to other variables with conceptually overlapping measures. Likewise, the single-factored Mael (1988) scale fails to distinguish between different aspects of social identification, but such a distinction is both theoretically justified and empirically supported (e.g., Ellemers et al., 1999; Tajfel, 1978).

Mael and Tetrick (1992) added four items to the original 6-item scale to produce a two factor representation of identification: "shared experiences" (which included 5 of the original 6 items plus a new one) and "shared characteristics" (which included one of the original 6 items plus 3 new ones). It is perhaps premature to interpret the usefulness and validity of the expanded identification scale, but for now it might be noted that the same ambiguities exist with the "shared experiences" factor as pointed out above, and the "shared characteristics" factor not only included an item measuring emotional commitment, but the other three items cover aspects of "qualities" of members and correspondence between member and organization attributes, thus making the factors difficult to interpret. This may be why one item on the second factor in Mael and Tetrick's (1992) study showed an unacceptable loading (.190 in their Table 1), considerable variability existed in loadings, and the best fitting model failed to reach acceptable levels of goodness-of-fit (their Table 3).

In sum, we propose two measures of the self-categorization dimension of organization identification and test its internal consistency, generalizability, and convergent validity. These aspects of measurement are based on slope parameters and are examined with the CFA model. We also explore whether the levels of identification (mean parameters) will be higher for full- versus part-time employees. It is difficult to pinpoint the exact processes behind this prediction in our field study because a number of variables may account for the differences, such as financial dependence and investment in the job or organization. Nevertheless, recent research in a different setting suggests that greater expected familiarity amongst organization members for full- versus part-time employees might increase perceived homogeneity of members and identification with the organization (e.g., Oakes, Haslam, Morrison, & Grace, 1995).

Affective commitment

While awareness of one's membership in an organization (self-categorization) seems to capture the idea of a cognitive component of one's social identity in the organization, it is important to consider emotional components as well (Ellemers et al., 1999). In this regard, we consider affective commitment to the organization (e.g., Allen & Meyer, 1990; Meyer & Allen, 1997). Allen and Meyer (1996, p. 253) define affective commitment as "identification with, involvement in, and emotional attachment to the organization". Given our desire to draw clear distinctions amongst cognitive, affective, and evaluative components of social identity, we prefer to reserve the term affective commitment for emotional attachment to the organization (see also O'Reilly & Chatman, 1986, p. 493). We build upon Shaver et al.'s (1987) identification of two fundamental positive emotional categories that underlie the representation of basic level emotional prototypes: "joy" (i.e., happiness towards the organization as a social category) and "love" (i.e., emotional attraction or affection towards the organization as a social category). Not only do "joy" and "love" capture different dimensions of people's semantic responses in the emotional lexicon, but according to appraisal theories of emotions (e.g., Frijda, 1986; Lazarus, 1991; Roseman, 1991), "joy" and "love" are produced by distinct appraisals of one's situation and have distinct action tendencies and behavioural responses. We will elaborate on this later,

when we discuss the mediating role of affective commitment. For now, we focus on the distinction between cognitive identification and affective commitment.

Organization-based self-esteem

We also wish to consider an evaluative component of social identity and define organization-based self-esteem as evaluations of self-worth deriving from one's membership in the organization. Our conceptualization and measurement differs from two similar treatments in the literature offered by Pierce et al. (1989) and Luhtanen and Crocker (1992).

Pierce et al. (1989, p. 625) define organization-based self-esteem as "the degree to which organizational members believe that they can satisfy their needs by participating in roles within the context of an organization". This conceptualization is not so much about one's self-concept or self-worth as it is about need satisfaction, which may or may not encompass appraisals of the self-concept. Consistent with their definition, Pierce et al. developed a 10-item scale that contains measures of how others think about oneself (e.g., "I count around there", "I am taken seriously", "There is faith in me") or what one can do (e.g., "I can make a difference"), as well as more direct measures of self-worth (e.g., "I am important", "I am valuable"). We desired to include as measures of organization-based self-esteem only items directly tapping self-worth as a consequence of group membership (see Method).

Luhtanen and Crocker (1992) developed a 16-item scale measuring four dimensions of group self-esteem: one's attitude towards personal performance in the group ("membership"), one's assessment of how well the group is regarded by people outside the group ("public"), one's attitude towards one's group and his/her membership in it ("private"), and one's appraisal of the group's contribution to his/her self-concept ("identity"). It might be argued that the "public" dimension of Luhtanen and Crocker's (1992) scale overlaps with what we have termed below organization prestige (e.g., two items from this dimension of their scale read, "Overall, my social groups are considered good by others" and "In general, others respect the social groups that I am a member of"). Likewise, the "private" dimension of their scale appears to be confounded with affective commitment (e.g., "I often regret that I belong to some of the social groups I do", "In general, I'm glad to be a member of the social groups I belong to", and "I feel good about the

social groups I belong to"). Finally, the "identity" dimension of Luhtanen and Crocker's (1992) scale seems to measure more self-categorization than self-esteem, per se (e.g., "The social groups I belong to are an important reflection of who I am" and "In general, belonging to social groups is an important part of my self-image").

Thus, only Luhtanen and Crocker's (1992) 4-item "membership" sub-scale seems to capture self-esteem deriving from group membership (e.g., "I am a worthy member of the social groups I belong to"). We desired to use a somewhat larger scale to measure self-esteem and chose six items from Heatherton and Polivy's (1991) instrument (see Method), which was based on extensive testing and is grounded in recent developments in the self-concept. Because Heatherton and Polivy's scale was originally developed as a measure of personal self-esteem, we altered it to refer to organization-based self-esteem by instructing employees to express their felt self-esteem as a consequence of working for the company in question. This yields a type of collective self-esteem and avoids confounding with sources of self-esteem originating from non-organizational sources. Each item explicitly refers to the respondent's sense of self-worth and thus directly measures self-esteem.

One aim of this study is to distinguish between different components of social identity and suggest that organization identification, affective commitment, and organized-based self-esteem are separate variables in this regard. We also wish to demonstrate that measures of these components not only achieve convergent validity empirically but show discriminant validity as well. Figure 1 presents a CFA model which provides a venue for testing the four components identified above and is in fact investigated herein.

[Figure 1 about here]

Antecedents of Social Identity

We explore the effects of two antecedents of social identity in the organization: organization prestige and organization stereotypes. The functioning of both antecedents is based on the premise that members of an organization strive to derive a positive social identity as a consequence of membership (e.g., Tajfel & Turner, 1979, 1986).

By organization prestige we mean the perception a member of the organization has that other people, whose opinions are valued, believe that the organization is well-regarded (e.g., respected, admired, prestigious, well-known). To the extent that one perceives that important others believe that one's organization is well-regarded, positive social identity should be promoted, ceteris paribus. One way this happens is that high prestige helps one come to assimilate the superiority of the organization and "bask in the reflected glory" (Cialdini et al., 1976, p. 366). Dutton et al. (1994, p. 251) also point-out that an attractive "construed external image" of one's work organization helps maintain a coherent and consistent sense of self, intensifies a member's distinctiveness in the eye's of others, and promotes self-enhancement "by providing important information about how others are likely to appraise a member's character based on his or her organization affiliation". All the above effects should strengthen self-categorization.

Organization stereotypes are a second class of antecedents of organization identity we examine. Following Dutton et al. (1994, p. 244), we define organization stereotypes as "member's beliefs about the distinctive, central, and enduring attributes of the organization". We used qualitative interviews to identify 23 attributes employees felt described the company under study. Factor analysis showed that three dimensions underlie these attributes: caring/participative, powerful, and skilled/efficient (see Method). It is hypothesized that organization stereotypes will affect cognitive organization identification to the extent it promotes self-enhancement. This occurs as an increase in both self-distinctiveness (Ashforth & Mael, 1989, p. 24) and continuity of members' self-concepts over time (Steele, 1988).

Social Identity Mediates the Effects of Antecedents on Citizenship Behaviours

Social identities prescribe and instigate behaviours for the benefit of co-members. For example, Ellemers et al. (1999) argued and found that group commitment (especially affective commitment) mediated displays of in-group favouritism (in terms of evaluative ratings and outcome allocations). In a somewhat analogous manner, we hypothesize that organizational identities have implications for citizenship behaviour displayed towards comembers in the organization. Citizenship behaviour might be thought of as a particular kind of in-group

favouritism and is defined as "employee behaviour that is above and beyond the call of duty and is therefore discretionary and not rewarded in the context of an organization's formal reward structure" (Konovsky & Pugh, 1994, p. 656). Five classes of citizenship behaviour have been identified: courtesy (e.g., "I consult with others who might be affected by my actions or decisions"), conscientiousness (e.g., "I give advance notice when unable to come to work"), sportsmanship (e.g., "I always find fault with what the organization is doing"), civic virtue (e.g., "I offer suggestions for ways to improve operations"), and altruism (e.g., "I help others who have heavy work loads").

We argue that self-categorization provides a cognitive basis for performance of citizenship behaviours but that affective commitment and group self-esteem supply the motivational force. Hence, affective commitment and group self-esteem are hypothesized to be the direct determinants of citizenship behaviours, and cognitive organizational identification is expected to indirectly affect citizenship behaviours through affective commitment and group self-esteem. A number of researchers have proposed that group identification in the organization leads to cooperative (Kramer, 1993) and altruistic acts (Dutton et al., 1994, p. 255) towards co-employees.

Affective commitment is expected to have a direct impact on citizenship behaviours as a function of the degree of emotional involvement with the organization. The attachment and belongingness a person feels toward the organization and the happiness he/she derives from the organization, as distinct positive emotions, should be associated with corresponding action tendencies. Frijda, Kuipers, and ter Shure (1989, p. 13) define action tendencies as the "readiness to engage in or disengage from interaction". In their study, they found that attachment and belongingness ("love") emotions and happiness ("joy") emotions were associated with the following action readiness modes: approach ("I want to approach, to make contact"), excitement, exuberance, and attending ("I want to observe well, to understand, or pay attention"). In-group favouritisim provides an opportunity for members to express their emotions and direct their action tendencies in a way reinforcing the positive affect associated with membership. The greater the attachment, belongingness, and happiness, the greater the performance of citizenship

behaviours. Evidence for a positive association between affective commitment and organizational citizenship behaviour can be found in Organ and Ryan (1995).

The rationale for our hypothesis that organization-based self-esteem mediates the effects of identification on citizenship behaviours is indebted to clarifications on the role of self-esteem made by Hogg and Abrams (1990) and recent discussions by Long and Spears (1997). Long and Spears (1997) hypothesized that people high in collective self-esteem are more likely to enhance their in-group, while people low in collective self-esteem are more likely to derogate their out-groups. The rationale for the former is based on a self-enhancement argument: people high in collective self-esteem seek enhancement for their in-group and through this reinforce collective self-esteem. By extension, high organization-based self-esteem employees should perform citizenship behaviours because of its self-enhancement effects. Collective self-esteem motivates prosocial behaviours towards in-group members. We do not examine the effects of collective self-esteem on out-group derogation in this study.

Finally, we also hypothesize that a consequence of organizational identification is enhanced self-esteem. To the degree that social identity is a salient basis of one's self-evaluation, we expect that employees will be motivated to maintain or enhance their collective self-esteem.

Method

Subjects and procedure

For the main sample, all employees of the Camst company in Italy were surveyed. Camst is a food service company that primarily supplies lunches to schools, hospitals, and private companies. It also has a small number of restaurants that cater to the afternoon trade only and also accept vouchers from local companies (many institutions in Italy provide lunch vouchers for their employees).

A total of 2700 surveys was distributed within the company. The survey was accompanied by a letter from the President of Camst urging people to participate but indicating that the survey was conducted on an anonymous basis and would be collected and handled by the authors in cooperation with their universities. This was in fact the case.

Nine hundred and fifty-one employees responded to the survey, for an overall response rate of 35.2%. A total of 409 people completed the entire questionnaire, which was rather lengthy and took approximately one hour and ten minutes to fill-out.

To get a sense of how representative the sample was of the total population of the firm, we compared the two groups on the socio-demographic and work-related information we had for both. The firm includes 77% women and 23% men employees; 51% who work part-time and 49% who work full-time; 25% unmarried, 64% married, and 11% widowed, legally separated, or divorced; and 20%, 44%, 34%, and 2% who completed elementary, middle, and secondary schools and college, respectively. The sample consisted of 69% women (N = 282) and 31% men (N = 127); 45% who work part-time and 55% who work full-time; 26% unmarried, 62% married, and 12% widowed, legally separated, or divorced; and 12 1/2%, 43 1/2%, 41%, and 3% who completed elementary, middle, and secondary schools and college, respectively. Overall, the sample compares well to the total firm population.

A sample of 283 employees (51% men) from the electronics division of Samsung Corporation in Korea was obtained to compare the generalizability of the organizational identification items. About 42% of the employees were high school graduates, while the rest were university graduates. Management distributed 300 questionnaires to all its employees at a management training session, with the goal of obtaining approximately half men and half women. Only 17 questionnaires were not completely filled-out, yielding a final sample size of 283.

Measures

A total of 432 items appeared on the Italian questionnaire, but only the one's pertinent to the study at hand will be described. The remaining items included 20 open-ended responses, 23 self-ratings on general characteristics and 23 corresponding importance ratings, 192 emotional responses toward various targets, 37 judgments about the general services provided by the company, and 37 miscellaneous items concerning the company. The aforementioned items appeared throughout the questionnaire, and the 100 focal items were interspersed amongst these. Below is a description of the focal items in English. The Italian and Korean versions were

derived from the English by use of double back translation procedures, as recommended by Brislin (1986).

Organizational identification. One set of measures of organizational identification was provided by the 6 items proposed by Mael (1988). Cronbach alpha was .86.

Two items were developed to measure cognitive organizational identification (self-categorization) as the perceived overlap between one's own self-concept and the identity of the organization. Figure 2 illustrates the first: a visual and verbal report of organizational identification, wherein respondents were asked to express their perceived overlap between their own self-definition and the identity of the organization. The second measure, which appeared 33 items later in the questionnaire, stated: "Please indicate to what degree your self-image overlaps with Camst's image". A 7-point scale was used to record responses, anchored by "not at all" and "very much", with "moderately" in the middle. Alpha for the cognitive measures was .71.

[Figure 2 about here]

Organization prestige. We employed 8 items to measure organization prestige. The items, which are somewhat similar to Mael and Ashforth's (1992) measures of "perceived organizational prestige", refer to beliefs by either "my relatives and people close or in some other way important to me" or "people generally" and focus upon 4 aspects of status: being well-known, respected, admired, and prestigious. A 5-point scale was used: 1 = "not at all", 2 = "a little bit", 3 = "moderately", 4 = "quite a bit", and 5 = "very much". Alpha was .93.

Organizational stereotypes. To identify the core set of attributes or features of the organization in the minds of employees, interviews were performed with 26 people. For each of the 12 main job descriptions (e.g., head chef, cook, cashier, bar tender, local director, top management), one or two people were selected and interviewed for up to two hours. An open-ended elicitation procedure was used to select central attributes, and 23 distinct characteristics were determined. Respondents in the main study were then asked to indicate how well each characteristic described the company. A 5-point scale was used: 1 = "not at all", 2 = "a little bit", 3 = "moderately", 4 = "quite a bit", and 5 = "very much". Alphas were .89 for 7 items found to load on a single "caring/participative" factor (i.e., sincere, sensitive, honest, responsible,

cooperative, democratic, participative) and .84 for 6 items found to load on a "powerful" factor (i.e., big, leader, dynamic, the best, progressive, famous). A third "skilled/efficient" factor (i.e., efficient, skilled) had an alpha of .78 but was dropped from further consideration because it failed to relate significantly with identification.

Affective commitment. The 7-item affective commitment scale developed by Allen and Meyer (1990) was administered. Responses were recorded on 7-point, "strongly disagree" to "strongly agree", measures. Alphas were .84 for the "joy" affect factor ("I would be very happy...", "I enjoy...", "I really feel as Camst's problems are my own", "Camst has great deal of personal meaning for me") and .76 for the "love" or attachment affect factor ("I do not feel like part of the family at Camst", "I do not feel emotionally attached...", "I do not feel a strong sense of belonging...").

Organizational-based self-esteem. Based on the results of a factor analysis, 6 items were chosen from Heatherton and Polivy's (1991) 20-item state self-esteem scale for adaptation in the present study. Rather than indicating their self-esteem in general as done under the original scale, respondents were instructed to express to what extent working at Camst made them feel in various ways about themselves. Five items were a direct translation of the items measuring positive self-enhancement from the original scale (i.e., "I feel confident about my abilities", "I feel that others respect and admire me", "I feel as smart as others", "I feel good about myself", and "I feel confident that I understand things"). The sixth item was a rewording of an item originally measuring self-consciousness (i.e., "I feel aware of or am conscious of myself"; in Italian this reads, "Sentire consapevole di me stesso/a."). Responses were recorded on 5-point scales: 1 = "not at all", 2 = "a little bit", 3 = "moderately", 4 = "quite a bit", and 5 = "very much". Alpha was .86.

Citizenship behaviour. We used Konovsky and Pugh's (1994) organizational citizenship behaviour scale for this study. Five dimensions underlie the scale: altruism, civic virtue, conscientiousness, courtesy, and sportsmanship. Based on the nature of the firm under study, three items were selected for each dimension from Konovsky and Pugh's (1994) original 32-item scale (e.g., help others who have heavy work loads, do more than required to do, offer

suggestions for ways to improve operations). Respondents were asked to indicate to what extent the items described them personally using the following scale: 1 = "not at all", 2 = "a little bit", 3 = "moderately", 4 = "quite a bit", 5 = "completely". Alpha was .75, .74, .53, .70, and .69, respectively, for the five dimensions noted above.

Tests of hypotheses

Confirmatory factor analysis (CFA) was used to test for convergent validity and generalizability of the measures of organizational identification. Structural equation models (SEMs) were used to test hypotheses related to the antecedents and consequences of organizational identification. The LISREL8 program was employed in both analyses (Jöreskog & Sörbom, 1993). The goodness-of-fit of the models were assessed with chi-square tests, the root mean squared error of approximation (RMSEA), the nonnormed fit index (NNFI), the comparative fit index (CFI), and the standardized root mean square residual (SRMR). Discussions of these indices can be found in Bentler (1990), Browne and Cudeck (1993), and Marsh, Balla, and Hau (1996). Satisfactory model fits are indicated by nonsignificant chi-square tests, SRMR and RMSEA values less than .08, and NNFI and CFI values greater than or equal to .90. For tests of the CFA models, individual items were used to operationalize factors. For tests of the SEMs, factors were operationalized with indicators comprised of subsets of items averaged together. Two indicators each were used for the components of social identity, self-esteem, and stereotypes (caring), three indicators were used for stereotypes (powerful), and four indicators were used for organization prestige. The three items for each citizenship behaviour were averaged together to form a single indicator of the respective factor. This procedure constitutes what is known as the "partial disaggregation" approach to structural equation modeling and is recommended to both smooth measurement error and maintain a proper ratio of cases to parameters to be estimated (e.g., Bagozzi & Edwards, 1998; Bagozzi & Heatherton, 1994). Finally, hypotheses on differences in the levels of factors across groups were tested with structured means (Jöreskog & Sörbom, 1993). All tests of hypotheses were performed on the covariance matrices.

A final point to mention with respect to interpretation of the findings to follow is that the items for affective commitment (love) and sportsmanship are reverse coded in accordance with

the original versions of the scales. This means that relationships between these variables and any of the other variables in the study should be negative, and relationships between these variables should be positive.

Results

Measures of identification

The CFA model for investigating convergent validity and generalizability of the measures of cognitive organization identification consists of two intercorrelated factors with 2 measures for the proposed cognitive factor and 6 measures for the Mael factor as indicators.

The findings show that we can not reject the hypothesis that the factor pattern matrices are the same for part- and full-time employees of Camst (χ^2 (38) = 69.88, $p \cong .00$, RMSEA = .05, SRMR = .04, NNFI = .96, CFI = .97) and for Camst and Samsung employees (χ^2 (38) = 136.58, $p \cong .00$, RMSEA = .06, SRMR = .04, NNFI = .93, CFI = .95). Factor loadings were in each case high (range = .61-.82 for part- and full-time employees; range = .52-.85 for employees of Camst and Samsung). The measures of convergent validity (i.e., the correlations between factors, corrected for attenuation) reveal that the proposed cognitive and Mael measures converge at very high levels (i.e., $\phi = .81$, $\phi = .78$, and $\phi = .82$) for part-, full-time, and all employees of Camst, respectively, and a moderately high level for employees of Samsung ($\phi = .51$).

Tests of generalizability show that all factor loadings are equal between part- and full-time employees of Camst, and all factor loadings, save one, are equal between Camst and Samsung employees. This means that the degree of correspondence between measurements and factors are the same across the respective samples. The factor loading that was not invariant across Camst and Samsung employees was for the third item in Mael's scale (i.e., "When I talk about [company], I usually say 'we' rather than 'they'".). The standardized loadings for this item were .68 and .52, respectively, for Camst and Samsung employees. Further tests of generalizability indicate that all error variances and variances and covariances for factors were the same for part- and full-time employees of Camst but not for Camst versus Samsung employees. In sum, total generalizability is demonstrated for part- vs. full-time employees of Camst, and partial invariance is shown for Camst versus Samsung employees.[1]

Comment on identification scales

Although the measurement properties of the cognitive identification and Mael scales generalize across part- and full-time Italian employees and across Italians and Koreans, it is important to stress that measurement properties refer to internal consistency and the relationships between measures and latent variables. For example, factor loadings are slope parameters. However, it is likely that strong cultural and other differences exist between the Italian and Korean employees studied herein. This might be expected to result in mean differences between Italians and Koreans on certain variables. Not only would Italians be expected to be relatively individualistic and Koreans relatively collectivistic (e.g., Markus & Kitayama, 1991; Triandis, 1995), but the particular employees surveyed differed in education and hierarchical level in their respective organizations, with Koreans generally exhibiting more education and more managerial responsibilities. Two aspects of the Italian sample that soften differences somewhat in individualism-collectivism between the samples are the type of organization and history of Camst. As a cooperative organization, where employees actually receive shares in the company and are demonstrably proud of the origins and philosophy of the company, Camst displays a work culture that is more collectivistic than the usual Italian firm. We tested the structured means of factors for the identification scales across Italians and Korean employees and found no significant difference in cognitive identification as measured by the proposed cognitive scale (ΔM = -.08, ns) but a significant difference in identification as measured by the Mael scale (ΔM = .24, t = 3.79), where Koreans showed greater identification. It thus seems that, while cognitive awareness of one's membership in the organization (as reflected in the proposed scale) does not differ across Italians and Koreans, the antecedents and consequences of identification do differ (as reflected in items from the Mael scale) in their overall levels.

Relationships amongst identification,
affective commitment, and organized-based self-esteem

The four-factor CFA model shown in Figure 1 fits well for both full- and part-time employees of Camst, and thus the factor pattern implied by the model generalizes across the samples (see panel 1 in Table 2). Table 1 presents the correlations among factors, where the correlations have been

corrected for the unreliabilities of the measures. Chi-square difference tests revealed that all factors are distinct (not shown in tables).

The second panel in Table 2 shows that the corresponding factor loadings for the four components of social identity are the same for full- and part-time employees. This establishes that the degree of correspondence between factors and measures is invariant across samples. Panel 3 in Table 2 indicates that the corresponding error variances of all measures are also invariant across samples. Panel 4 demonstrates that the corresponding variances of factors and covariances amongst factors are the same across full- and part-time employees. In sum, the results show that the same structure of components for social identity exists between full- and part-time employees, measures are highly and equally reliable across samples, and the associations amongst components are identical (i.e., all pairs of correlations between components are of equal magnitude across samples).

[Tables 1 & 2 about here]

The bottom panel of Table 2 presents the findings for tests of equality of factor means across samples. It can be seen that part-time employees have significantly lower levels of cognitive organization identification and affective commitment (joy) than full-time employees. Part- and full-time employees do not differ significantly on levels of affective commitment (love) and organization-based self-esteem.

For the remaining hypothesis tests presented below, the analyses had to be performed on the pooled sample of part- and full-time Italian employees because the sample size of each group is too small to maintain the proper ratio of cases to parameter estimates. Because we have demonstrated the equivalence of factor structures, loadings, error variances, factor variances, and relationships among the components of social identity, pooling poses no problem of interpretation for these variables.

Social identity as a mediator of the effects of antecedents on citizenship behaviours

Figure 3 presents the findings for causal paths, where it was hypothesized that social identity mediates the effects of organization prestige and stereotypes on citizenship behaviours. This model fits the data well: χ^2 (187) = 366.96, $p \cong .00$, RMSEA = .05, SRMR = .05, NNFI = .95,

CFI = .96. The results show that, as hypothesized, organization prestige and stereotypes directly affect identification, which in turn influences affective commitment and organization-based self-esteem; affective commitment and self-esteem then determine citizenship behaviours.

[Figure 3 about here]

To verify whether organization identification influences affective commitment and self-esteem or whether the latter influence identification, we tested a model with reciprocal causation between identification and affective commitment and self-esteem. The second panel in Table 3 presents the findings, where it can be seen that only the hypothesized sequences are supported: identification influences both affective commitment and self-esteem but not vice versa.

[Table 3 about here]

Next we tested the hypothesis whether social identity fully mediates the effects of organization prestige and stereotypes on citizenship behaviours. This involves a comparison of the model shown in Figure 3 to the same model with direct paths added from prestige and stereotypes to citizenship behaviours. A chi-square difference test with 15df is used to formally ascertain mediation. As shown in panel 3 of Table 3, only one of fifteen direct paths was found to be significant: i.e., the path from organization stereotypes (powerful) to sportsmanship, where $\gamma = -.28$, s.e. = .13. Thus, near total mediation by social identity has been demonstrated.

Another formal test of mediation to perform is whether affective commitment and self-esteem fully channel the effects of identification on citizenship behaviours. Recall that we hypothesized that identification (self-categorization) provides a cognitive basis for acting benevolently toward coworkers but that affective commitment and group self-esteem supply the direct motivational force for doing so. To test the mediating effects of this motivation, we compared the model in Figure 3 to the same model where direct paths are added from identification to citizenship behaviours. Panel 4 in Table 3 shows that all five direct paths are nonsignificant. Hence, affective commitment and self-esteem fully mediate the effects of identification on citizenship behaviours.

The final test of mediation to scrutinize is whether identification transforms the effects of prestige and stereotypes onto affective commitment and self-esteem. This test is accomplished

by comparing the model in Figure 3 to the same model where direct paths are added from prestige and stereotypes to affective commitment and self-esteem. The findings in the bottom panel of Table 3 show that only one of nine direct paths is significant: i.e., the path from prestige to affective commitment (joy), $\gamma = .15$, s.e. = .05. Therefore, identification mediates the vast majority of the effects of prestige and stereotypes on affective commitment and self-esteem.

In sum, the findings support the hypothesized sequence of relations: (prestige and stereotypes) → (social identity) → (citizenship behaviours). The paths shown in Figure 3 are consistent with hypotheses. Of 29 possible direct paths constituting rival hypotheses to the mediation model in Figure 3, only 2 were significant. Moreover, these paths were relatively small in magnitude.

Discussion

One aim of this study was to specify the conceptualization of the cognitive component of organization identity and develop and test measures of it. This component was defined as the self-awareness of one's membership in the organization, which is an instance of self-categorization (Ellemers et al., 1999; Tajfel, 1978). Visual and verbal measures of cognitive organizational identification were demonstrated to achieve satisfactory levels of reliability, convergent validity, predictive validity, and generalizability. Importantly, the proposed measures were designed to avoid the confounding of antecedents, consequences, and correlates with the meaning of self-categorization that is characteristic of a leading scale for measuring organizational identification (Mael, 1988). The new scale provides a sounder basis for testing hypotheses that relate identification to its causes and effects.

A second aim of our study was to point out the theoretical distinctions among components of social identity in the organization and to demonstrate the empirical uniqueness of measures in this regard. Psychologists have shown that three components contribute to one's social identity in groups: cognitive, emotional, and evaluative components (Ellemers et al., 1999; Tajfel, 1978).

In our study of social identity in a work organization, we conceived of the cognitive component as an instance of self-categorization formed by a member of the organization. The

emotional component was conceived in two dimensions. One is positive feelings (e.g., enjoyment, happiness) a person receives from the organization as a consequence of membership. The second is feelings (e.g., attachment, belongingness) a person has toward the organization. These two distinctions correspond to the fundamental dimensions of "joy" and "love" shown in basic research on emotions by psychologists (e.g., Shaver et al., 1987). Finally, the evaluative component of social identity was defined as organization-based self-esteem, a type of group or collective self-esteem, which consists of appraisals of self-worth deriving from a person's membership in the organization. Confirmatory factor analysis demonstrated that measures of the four components of social identity showed both convergent and discriminant validity and did so in two samples of workers (see Table 1).

We employed Allen and Meyer's (1990) 7 items to operationalize affective commitment. These items show three shortcomings. First, they were measured by use of an agree-disagree format. Contemporary practice in psychology is to use either bipolar (e.g., happy-unhappy, Russell & Carroll, 1999) or unipolar (e.g., very happy-not at all happy, Bagozzi, Wong, & Yi, in press) scales to measure emotions, with the latter preferred when gender and cultural differences are expected amongst respondents. Second, the Allen and Meyer (1990) items did not represent a broad enough range of exemplars for "joy" and "love". For future research, suggested exemplars for "joy" include joy, delight, gladness, happiness, pleasure, satisfaction, enthusiasm, zeal, and excitement, and for "love" include love, affection, attachment, fondness, liking, belongingness, attraction, caring, and sentimentality (Shaver et al., 1987). Finally, Allen and Meyer (1990) worded what we have termed herein "joy" items in the positive and "love" items in the negative. For future research, it would be better to contain either a comprehensive range of bipolar items or a sufficient number of positive and negative unipolar items.

A third objective of this study was to specify antecedents of identification and commitment and test their impact in a real organization. In this regard, organization prestige (i.e., the perception a member has that other people, whose opinions are valued, believe the organization is well-regarded) and organization stereotypes (i.e., value connotations for attributes of the organization) were found to enhance self-categorization. Future research should more

formally investigate the processes underlying construed external image (Dutton et al., 1994) and how a member's own stereotypes and their evaluation are reconciled with perceptions of organization stereotypes.

A fourth objective of our study was to ascertain how identification and commitment prompt behaviours towards comembers. Affective commitment served as a strong instigator of people's tendency to act in a benevolent way on behalf of comembers in the organization. Indeed, affective commitment had a favourable impact on displays of altruism, sportsmanship, and civic virtue in the organization (see Figure 3). This result is similar to Ellemers et al.'s (1999) finding that group commitment was the main aspect of social identity to produce in-group favouritism. Organized-based self-esteem also served as a determinant of conscientious and courteous behaviours in the organization in our study (see Figure 3). Other factors in our study—organization prestige, stereotypes, and cognitive identification—had only indirect effects on citizenship behavours. In this regard, cognitive organization identification had strong effects on both affective commitment and group self-esteem enroute to the latter's impact on citizenship behaviours. The findings show that what we feel about our self-categorization and how we evaluate it determines what we do vis-à-vis in-group members.

By way of final comments, we wish to point out that self-categorization also played a strong role as a mediator. Figure 3 demonstrates that cognitive identification is under the influence of two forces. Perceptions that the organization is both powerful and caring directly increased identification. In turn, cognitive identification had strong influences on both affective commitment and organization-based self-esteem. Affective commitment and self-esteem then motivated citizenship behaviors. The picture that emerges from our field study is that social identity in the form of cognitive, emotional, and evaluative components not only can be measured as multiple components but affects people's tendency to behave in terms of their organization membership and channels the effects of organization prestige and stereotypes on in-group favouritism.

Footnotes

[1] It should be noted that the level of partial invariance found here is nevertheless regarded as satisfactory evidence for measurement generalizability in the structural equation modeling literature (see Marsh, 1994, pp. 11-17).

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Table 1. Confirmatory Factor Analysis Correlation Matrices for Full- and Part-time Employees

Cognitive Identification	1.00	.80	-.55	.55
Affective Commitment (Joy)	.79	1.00	-.56	.52
Affective Commitment (Love)	-.49	-.40	1.00	-.32
Organization-based Self-esteem	.68	.65	-.27	1.00

Full-time employees above and part-time below diagonal. Items measuring affective commitment (love) were reverse coded.

Table 2. Tests of Hypotheses for Invariance of Parameters across Full- and Part-time Employees for Model in Figure 1

Model	Goodness-of-fit	Test of hypothesis and conclusion
M_1: Baseline	χ^2 (28) = 39.31, $p \cong .08$ RMSEA = .04 SRMR = .02 NNFI = .98 CFI = .99	Factor pattern invariant
M_2: Equal factor loadings	χ^2 (32) = 44.26, $p \cong .08$	M_2 - M_1: $\chi^2_d(4) = 4.95, p > .30$ accept
M_3: Equal error variances	χ^2 (40) = 52.24, $p \cong .09$	M_3 - M_2: $\chi^2_d(8) = 7.98, p > .45$ accept
M_4: Equal factor variance-covariance matrix	χ^2 (50) = 69.19, $p \cong .07$	M_4 - M_3: $\chi^2_d(10) = 16.95, p > .09$ accept

M_5: Test of structured means (mean of full-time employees fixed at zero):

	COI	AC(J)	AC(L)	OBSE
Mean difference	-.53	-.63	.28	-.15
Standard error	(.17)	(.15)	(.16)	(.08)
t-value	-3.05	-4.29	1.77	-1.80

Note: COI = cognitive organization identification, AC(J) = affective commitment (joy), AC(L) = affective commitment (love), OBSE = organization-based self-esteem.

Table 3. Tests of Hypotheses for Causal Mediation in Figure 2

Model	Goodness-of-fit	Test of hypothesis and conclusion
M_1: Baseline (Figure 3)	χ^2 (187) = 366.96, $p \cong .00$ RMSEA = .05 SRMR = .05 NNFI = .95 CFI = .96	Model in Figure 3 is consistent with the data.
M_2: Reciprocal causality between cognitive identification and affective commitment and self-esteem	χ^2 (184) = 365.07, $p \cong .00$	$M_2 - M_1$: $\chi^2_d(3) = .87, p > .80$ Cognitive identification influences affective commitment and self-esteem, not vice versa.
M_3: Added paths from prestige and stereotypes to citizenship behaviours	χ^2 (172) = 334.13, $p \cong .00$	$M_3 - M_1$: $\chi^2_d(15) = 32.83, p < .01$ Social identity fully mediates the effects of prestige and stereotypes on citizenship behaviours except for one direct path from powerful stereotypes to sportsmanship (γ = -.28, s.e. = .13).
M_4: Added paths from cognitive identification to citizenship behaviours	χ^2 (182) = 358.48, $p \cong .00$	$M_4 - M_1$: $\chi^2_d(5) = 8.48, p > .11$ Affective commitment and self-esteem fully mediate the effects of cognitive identification on citizenship behaviours.
M_5: Added paths from prestige and stereotypes to affective commitment and self-esteem	χ^2 (178) = 348.93, $p \cong .00$	$M_5 - M_1$: $\chi^2_d(9) = 18.03, p < .03$ Cognitive identification fully mediates the effects of prestige and stereotypes on affective commitment and self-esteem except for one direct path from prestige to joy affective commitment (γ = .15, s.e. = .05).

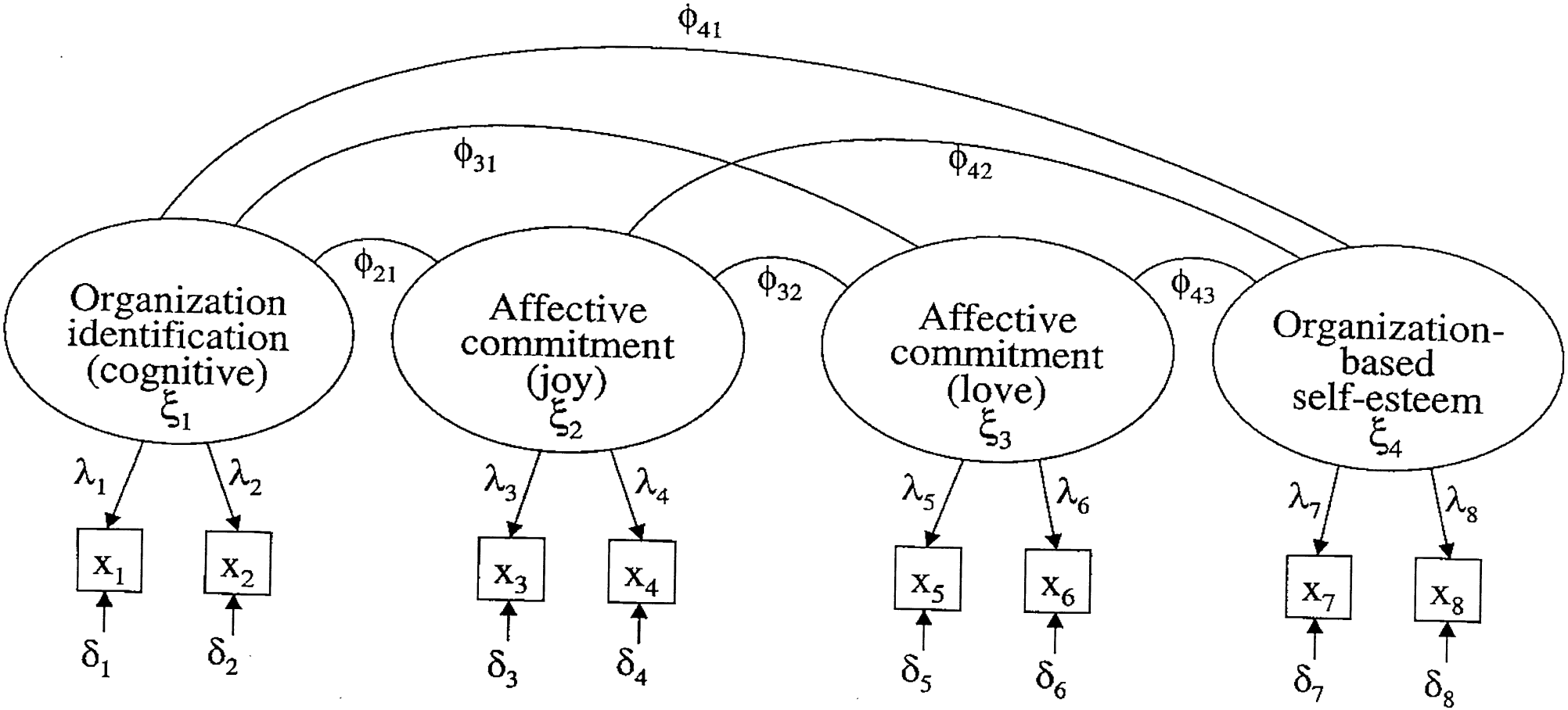

Figure 1. Confirmatory Factor Analysis Model for Components of Social Identity: Organization Identification, Affective Commitment, and Organization-based Self-esteem

Imagine that one of the circles at the left in each row represents your own self-definition or identity and the other circle at the right represents CAMST's identity. Please indicate which case (A, B, C, D, E, F, G, or H) best describes the level of overlap between your own and CAMST's identities.

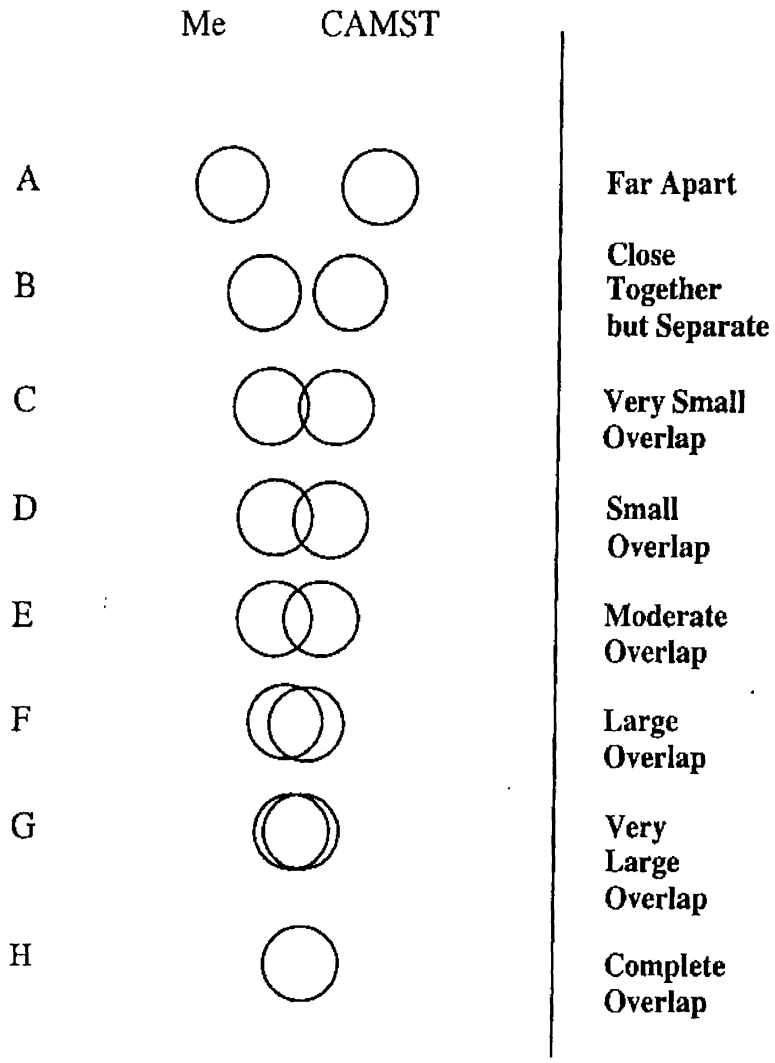

Figure 2. Direct measure of organizational identification based on an aided visual diagram of degree of overlap between self-definition and organizational identity.