

Abstract

A growing body of research is exploring the interaction between an organization's identity and its innovations - with most research to date showing that extant organizations often fail at innovations that question or threaten current organizational identities, even if they are of critical importance (Anthony & Tripsas 2016). It is thus surprising that comparatively little work has hitherto developed and tested the underlying individual-level mechanisms, i.e. identity-related mechanisms by which organizational members come to reject, or adopt, an innovation. In this paper, we first develop a conceptual framework which proposes how members' identification with innovations may be driven by their perception of the innovation's effect on the organizational identity ('who we are becoming due to this innovation'). We then derive hypotheses and test them in the context of the introduction of new product innovations at HealthCo, a pharmaceutical leader. Drawing on data from 154 salesforce members, we find that member perception varies as to how these innovations may impact HealthCo's identity in several dimensions (organizational distinctiveness, coherence, prestige). We also find that these perceptual differences explain to a large extent whether members will cognitively identify with the specific innovation. In sum, this study introduces empirically tests an identity-based concept of members' identification with innovations as well as its antecedents with the aim to contribute insights for better understanding and managing the internal adoption of innovations.

Introduction: Organizational identity comparisons and innovations

While most research to date seems to have implicitly or explicitly considered organizational identity as a constraint to innovations, some research has shown that comparisons of current – future images of the organizations identity may, in fact, be supportive for innovations (Anthony & Tripsas 2016). These works have provided interesting initial insights that current and ideal organizational identity perceptions may influence whether innovative initiatives are accepted or resisted. However, clearly lacking is firstly, an understanding of the *determinants* that make a certain organizational identity and its related innovations *desirable* at the individual member level and, secondly, and understanding of the psychological *process* by which individual members then come to cognitively adopt and truly *identify with* such innovations. Needless to say, knowing how to create identification with an innovative initiative among the members could prove to be a critical element for successfully managing innovative change.

We thus examine in this paper how innovations are interrelated with members' perceptions and expectations of their organization's identity and how these comparative processes influence whether members will cognitively adopt or resist a certain change initiative. We specifically focus on the introduction of innovations as exemplars of organizational change, following Anderson and his colleagues, who assert that an "*innovation is by definition a form of social restructuring*" ((Anderson et al., 2004) p.152). Uncovering the interrelationship between organizational identities, innovations and the members' self-concept allows for developing a social psychological understanding of members' identification with innovations and its determinants. In sum, by grounding its conceptualizations in the social identity approach, this study contributes the first identity-based framework for understanding and managing the desirability of innovations and, in consequence, organizational members' identification with innovations.

The remainder of the paper proceeds as follows. First, we define the key theoretical concepts such as current and ideal organizational identities, innovations and individuals' *identification*

with innovations and theoretically link them to each other. Then, we develop identity-related *determinants* of individuals' identification with innovations and derive related hypotheses, respectively. Finally, we test the hypotheses on a salesforce of a large healthcare company, present the findings and discuss the studies limitations as well as its implication for theory and practice.

Identification with innovations – the concept and its drivers

Conceptually linking organizational identity comparisons, innovations and identification with innovations

In order to link organizational identity comparisons with innovations and individuals' identification with innovation, we begin by adopting the understanding of *current* organizational identity as the beliefs about the currently existing character of an organization as understood by each of its members (Dukerich, Golden, & Shortell, 2002; Gioia & Thomas, 1996). However, prior definitions of the *ideal* organizational identity are more vague, defining it as 'future-oriented beliefs about what is desirable' (Gioia & Thomas, 1996; Reger et al., 1994). In order to arrive at a more grounded conceptualization we resort to the social identity approach (Tajfel, 1979; Tajfel & Turner, 1985; Turner, Hogg, Oakes, Reicher, & Whetherell, 1987) and build on research which has argued that the perceived desirability or attractiveness of an organization's identity depends on the extent to which it satisfies the members' self-definitional needs (Dukerich et al., 2002; Dutton, Dukerich, & Harquail, 1994). In keeping with current social psychological research, self-definitional needs will be subsequently referred to as 'identity motives' (Stets & Burke, 2000; Vignoles, Regalia, Manzi, Golledge, & Scabini, 2006). Identity motives can be defined as "*pressures toward certain identity states and away from others, which guide the processes of identity construction*" ((Vignoles et al., 2006) p.309). Individuals strive to construct and maintain a positive identity (Gecas, 1982; Gecas & Burke,

1995; Rosenberg, Schoenbach, Schooler, & Rosenberg, 1995) and identity motives represent the motivators that drive and enable individuals to arrive at a positive view of themselves (Vignoles et al., 2006). Important identity motives include, for instance, self-distinctiveness, self-continuity and self-enhancement (for reviews, see (Stets & Burke, 2000; Vignoles et al., 2006)). They will be discussed in further detail in the next section. An organization's identity and its attributes can meet such motives and thereby support individuals in constructing their social identity as organizational members in a positive way. The more members perceive an organization's identity to meet and fulfil their social identity motives, the more attractive or desirable the organization will appear to them (Dukerich et al., 2002; Dutton et al., 1994). If the ideal organizational identity has previously been defined as the most desirable, we now redefine it in social identity terms as that organizational identity that members envision to best meet their social identity motives.

Having now grounded the concept of current and ideal organizational identity in prior social identity work, *innovations* need also to be defined commensurate with the social identity approach. Innovations are here viewed as exemplars of organizational change, following Anderson and his colleagues, who assert that an "*innovation is by definition a form of social restructuring*" ((Anderson et al., 2004) p.152). More specifically, we adopt one of the most widely accepted definitions of an innovation as "*the intentional introduction and application within a role, group or organization of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, the organization or wider society*" ((West & Farr, 1990) p.9). This definition contains three criteria by which organizational actions can be classified as innovations. Firstly, they need to be readily *applicable*. This aspect differentiates innovations from related notions of creativity or inventions. Secondly, only organizational actions that turn out to be *of benefit* at individual or collective levels may qualify as innovations. Thirdly, and most importantly to the present study, organizational actions must be of *relative novelty* to the organization in order to be classifiable

as innovations (Anderson et al., 2004; West & Farr, 1990). This last criterion clearly indicates that the innovativeness of an organizational action is not independent of its organizational context. Rather, an organizational action will only be recognized as an innovation when it adds a characteristic to the organization that was previously not seen by its members. Thus, how members interpret organizational actions depends on their (prior) perception of the organization's characteristics. If innovations and organizational characteristics are so intricately related, it is surprising that the arguably most central characteristic of an organization – its identity – has received so little attention in innovation research. Research on the core of the innovation process seems to have hardly paid any attention to the explanatory power of the social identity approach yet, except perhaps for initial conceptual considerations (King, 2003).

Finally, a conceptualization of organizational member's *identification with innovations* is needed that is consistent with the social identity approach, as prior research on organizational change has mostly limited itself to very general descriptions of member attitudes such as 'favouring' or 'resisting' when defining the acceptance or rejection of innovative change by organizational members. Likewise, Nigel King (King, 2003) asserts in his review of the innovation literature on member involvement: "*The problem is that most of this literature has either treated organizational member involvement as a black box (between the 'inputs' of structure, leadership, resources etc. and the 'output' of innovation), or has reduced its complexities to the single issue of 'resistance'*" ((King, 2003) p.620). The social identity approach allows for a more grounded understanding of members' cognitive adoption or rejection of innovations. Setting out, it should be noted, however, that the social identity approach was developed with a primary interest in social elements such as individuals and groups. It is thus not obvious how material artefacts, such as product innovations, can be integrated with the social identity perspective.

The application of the social identity approach to the organizational realm has hitherto viewed the organization as a social group and focussed on how individuals come to identify with it by including this group into their sense of self (Haslam, Powell, & Turner, 2000). Organizational identification has been defined in various ways (for reviews, see (Pratt, 1998; Whetten, 2007)), with one of the earliest and widely used definitions of organizational identification being “*the degree to which a member defines himself or herself by the same attributes that he or she believes define the organization*” ((Dutton et al., 1994) p.239). While the organization serves as identification target in this definition, individuals may also have a sense of congruence or oneness with identification targets other than organizations. Indeed, it has long been suggested that the theoretical foundations underlying organizational identification may just as well be applicable to other targets of identification, including objects (Pratt, 1998). In other words, “*it is not clear that identifying with individuals is any different, in theory, than identifying with things that are not individuals*” ((Pratt, 1998) p.172). The reason that identification principles may not only be applicable to social elements but also to material artefacts is simply that identification does not occur with the substance or ‘objective’ features of the identification target, but really with the beliefs or image one holds of it (Pratt, 1998). Thus, any image an individual creates and holds of social or material entity can serve as a target of identification.

Innovations are here proposed to trigger sensemaking processes (Daft & Weick, 1984; Weick, Sutcliffe, & Obstfeld, 2005) among organizational members by which meaning is attributed to the innovations and images of innovations are created. These images can then serve as targets of identification for organizational members. In other words, the extent to which organizational members identify with an innovation can be described as the degree of perceived congruence between the image they hold of the innovation and their social identity as an organizational member (‘Does this innovation represent who I am and what I stand for as a member of this

organization?'). In conclusion, identification with innovations is here defined as the degree to which individuals defines themselves by the same attributes they believe define the innovation.

This grounded conceptualization now allows for developing a causal link between innovations, perceived current and ideal organizational identities and, ultimately, the self-concept of organizational members. First, we propose that perceptions of the *current* organizational identity may be malleable by innovations (see figure 1.1.). The current organizational identity could be changed by innovations in two directions - either approaching or moving away from the ideal organizational identity and thus resulting in a reduced or enlarged identity gap. For instance in the case of 'Innovation A', the perceived identity gap is reduced after the innovation is introduced (see box "Post Innovation A"). A reduced identity gap means that members perceive the organizational identity (post-innovation) to better meet their social identity motives than before (pre-innovation).

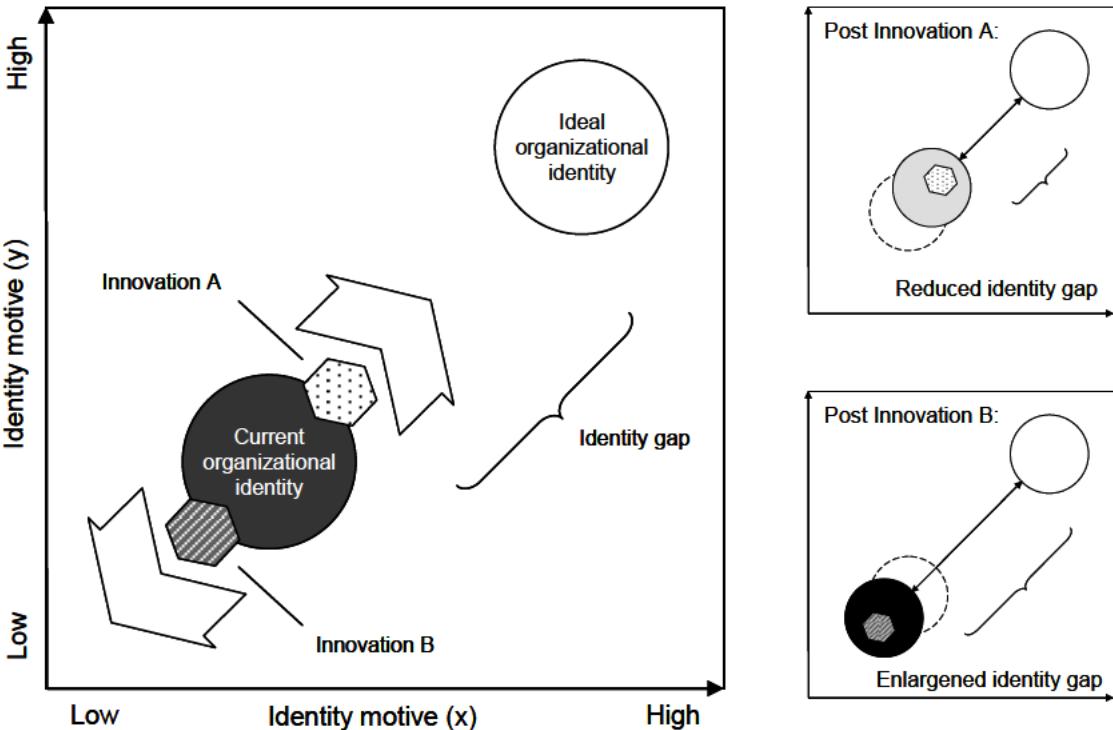


Figure 1.1: The effect of different innovations (A/B) on perceived current org. identity

Second, while perceptions of the current organizational identity are open to modifications by innovations, the *ideal* organizational identity is here conceived as a relatively constant reference. As developed above, what makes a possible future organizational identity 'ideal' among all possible alternatives and most desirable to an organizational member is its promise to best meet the member's social identity motives. The ideal organizational identity serves as a reference point to evaluate the innovation and its effect on the current organizational identity.

Third, it follows from the above that the interpretation of *innovations* is guided by comparisons of the current and the ideal organizational identity ('Who are we becoming due to this innovation?') that are again reflected against the member's social identity ('Who am I becoming as a member of this organization due to this innovation?'). Thus, organizational identity comparisons serve as interpretive schemes for the evaluation of innovations. An innovation will be interpreted as moving the current organizational identity towards the ideal when the innovation meets important identity motives of organizational members. The more an innovation meets members' identity motives, the more the innovation will appear to them as congruent with their organizational ideal ("This innovation represents who we want to be and stand for as an organization") (see figure 1.2. below). In such instances, the image that members have created of the innovation also resembles their social identity as organizational members ('This innovation represents who I am and what I stand for as a member of this organization'). The degree of similarity members perceive between the innovation and their social identity equals their degree of identification with the innovation.

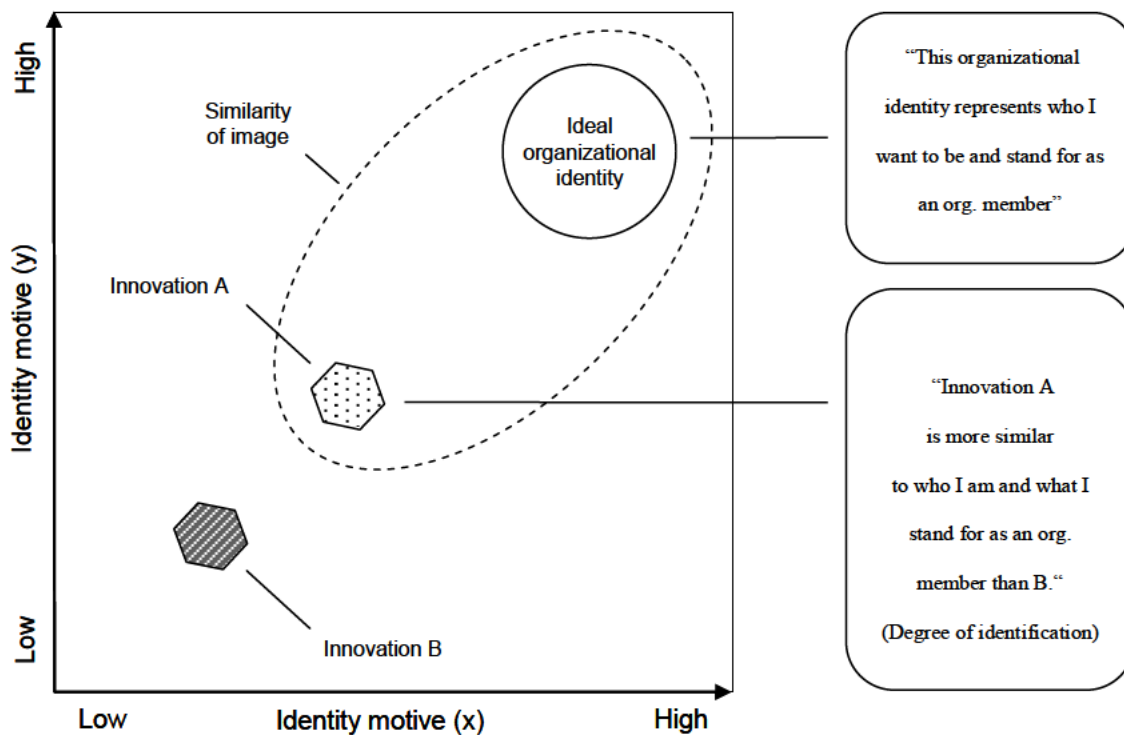


Figure 1.2: Identification with innovations as similarity of image

In sum, members will identify with an innovation to the extent that they perceive it to make the current organizational identity more attractive in dimensions that meet their identity motives as organizational members.

Deriving determinants of individuals' identification with innovations

In order to further differentiate this proposition and to develop specific determinants of individuals' identification with innovations, two steps are necessary. *Firstly*, it now needs to be developed *which social identity motives* are most important to an individual's self-concept. *Secondly*, it needs to be shown *which organizational identity dimensions* may be capable of meeting these motives. Relating key social identity motives to organizational identity dimensions will provide a differentiated understanding about which aspects of the organization

an innovation needs to address in order to be recognized by the members' as similar to the organizational identity ideal and thus leading to member identification with the innovation.

The identity motive of maintaining or enhancing self-esteem was dominant in early formulations of social identity theory (Tajfel, 1982). Meanwhile, social psychology has come to propose a broader array of identity motives, including self-continuity, self-distinctiveness, belonging, self-efficacy, meaning, uncertainty reduction and self-regulations (for reviews, see (Stets & Burke, 2000; Vignoles et al., 2006)). Many of these identity motives are rather new to social psychology and still await further validation (Stets & Burke, 2000). However, three of them have already found consistent empirical support over the past decade in organizational contexts: self-distinctiveness, self-continuity and self-enhancement (Ashforth, 2001; Ashforth, Harrison, & Corley, 2008; Dutton et al., 1994; Shamir, 1991; Steele, 1988). The remainder of the paper further explores these key identity motives, proposes which dimension of the organizational identity may be capable of meeting these motives and concludes in showing how innovation-induced changes in each organizational identity (OI) dimension will drive members' identification with the innovation.

OI distinctiveness and identification with innovations

The need to see oneself as unique has long been recognized in theories of self and identity (Erikson, 1959; Fromm, 1942; Snyder & Fromkin, 1980). Self-distinctiveness has been argued to be important for identity as a basic human need, as a social value or a means to achieve self-enhancement or meaning (for a review, see (Vignoles, Chryssochoou, & Breakwell, 2000)). While early research in social identity conceived of distinctiveness as a source of self-esteem, later identity-related research has come to see *self-distinctiveness* as reflecting a basic need of differentiation that is largely independent of self-enhancement motives (Brewer, 1991). Self-distinctiveness can not only be achieved by distinguished personal attributes, but also by

membership in certain groups which stand out among other groups. In support of this view, research has shown that individuals tend to associate and identify with organizations that they perceive to be relatively distinct (for reviews, see (Pratt, 1998; Riketta, 2005)). If self-distinctiveness is an important identity motive and the ideal organizational identity is rightly defined as that which best meets those motives, an ideal organizational identity will itself have a high degree of distinctiveness. In consequence, an innovation that enhances the current organizational identity in the distinctiveness dimension will be seen to ‘move’ the current organizational identity closer to the ideal. Such an innovation will itself be seen to carry attributes that are highly desirable for members and they will perceive a high congruence between their social identity as organizational members and the image they have created of the innovation. This notion is supported by findings of Vignoles et al. (Vignoles et al., 2006) in social psychology research that individuals generally perceive identity elements as more central to their own identity to the extent that they raise their sense of distinctiveness. Building on the above reasoning and findings, organizational members are expected to identify more with an innovation to the extent that they perceive it to raise their sense of distinctiveness by making their organization more distinct.

Hypothesis 1 (H1): The more organizational members perceive an innovation to increase the distinctiveness of their organization, the more they will identify with the innovation.

OI inconsistency and identification with innovations

Individuals value and try to maintain a consistent sense of self over time (Festinger, 1957; Gecas & Burke, 1995; Steele, 1988). Such self-continuity is a strong motive that may in certain contexts be more important to an individual than achieving self-enhancement, even when the upheld identity is socially unfavourable (Swann, 1990). Dutton et al. (Dutton et al., 1994)

argued that an organization's identity can add or subtract from a member's sense of continuity, depending on the extent to which it is perceived to be consistent with the member's self-concept. They suggested that members will be attracted to organizational identities that are consistent with their self-concepts, firstly, because such identities are more easily attended to, recalled and favourably interpreted (Markus & Wurf, 1987), and secondly, because they provide members with opportunities for self-expression (Shamir, 1991). This has been also confirmed by Chen et al., who have shown at the collective level that self-verifying information is more easily and more favourably processed than disconfirming information (Chen, Chen, & Shaw, 2004). Based on this research, an organization can be expected to become less attractive to its members when its identity is perceived to be losing internal consistency, because in such instances, members will find it difficult to maintain a consistent social identity over time. A loss in identity consistency can occur if central organizational identity elements such as values, goals and strategic or cultural aspects are perceived to be misaligned and incompatible with each other (Kreiner & Ashforth, 2004). Organizational identification research confirms that individuals disidentify or, at best, ambivalently identify with organizations whose identity they perceive to be inconsistent (Kreiner & Ashforth, 2004). Internal consistency will, thus, be another dimension of the ideal organizational identity, which answers to the self-continuity motive of its members. Hence, an innovation that lowers the organization's consistency will be interpreted as moving the current organization's identity away from the ideal. Such innovations will be seen to carry undesirable attributes because they threaten the member's motive for self-continuity. It follows that the image members hold of such innovations will have little overlap with their social identity as organizational members, which represent a low level of identification. This proposition is supported by general findings in social psychology that individuals perceive elements as less central to their sense of self to the extent that these lower their self-continuity (Vignoles et al., 2006). Building on the above reasoning and findings,

organizational members are expected to identify less with an innovation to the extent that they perceive it to lower their sense of continuity by making their organization more inconsistent.

Hypothesis 2 (H2): The more organizational members perceive an innovation to increase the inconsistency of their organization, the less they will identify with the innovation.

OI prestige and identification with innovations

Self-esteem, defined as the desire of achieving a positive overall evaluation of the self (Gecas, 1982; Rosenberg et al., 1995), is one of the most studied aspects of the self-concept and has played a central role in social identity-related organizational research since its inception (Ashforth & Mael, 1989) (for a review, see (Pratt, 1998)). While the self-esteem motive has been conceptually differentiated into efficacy-based self-esteem (self-efficacy) and worth-based self-esteem (self-worth), these aspects can often hardly be kept apart at the experiential level (Gecas, 1982). Hence, they will not be differentiated at this early conceptual stage for the sake of parsimony. Organizational prestige has been frequently argued and found to be a means of enhancing self-esteem, thereby inducing member identification, for example (Bergami & Bagozzi, 2000; Mael & Ashforth, 1992). Organizational prestige is here conceived from a member's point of view, what has been called the construed external image (CEI), that is, how members think their organization is externally appraised (Dukerich et al., 2002; Dutton et al., 1994; Gioia et al., 2000). If organizational prestige serves the identity motive of enhancing self-esteem, organizational prestige represents an important dimension of the ideal organizational identity. Innovations which raise the organization's prestige will be seen to move the current organizational identity closer to the ideal. These innovations will be seen as highly desirable and a member's perceived image of the innovation will widely overlap with their own sense of self as organizational members. Again, research in general social psychology provides support

for this notion, as Vignoles et al. have found that individuals rate identity elements as more central to their self-concept to the extent that these elements enhance their self-esteem (Vignoles et al., 2006). Building on the above reasoning and findings, organizational members are expected to identify more with an innovation to the extent that they perceive it as self-enhancing by making their organization more distinct.

Hypothesis 3 (H3): The more organizational members perceive an innovation to increase the prestige (CEI) of their organization, the more they will identify with the innovation.

Identification with innovations across different social contexts

The development of an innovation, such as a new product in the present study, is often viewed as a process comprising different stages, which can markedly differ in a variety of aspects (Cooper, 1994, 2008; Crawford & Di Benedetto, 2006; Ulrich & Eppinger, 1995). When adopting the social identity approach, social context comes into focus as a potentially important influence on cognition, affect and behaviour along the innovation process and the question should be raised whether it is not necessary to differentiate the social context within which the innovation process is embedded (Granovetter, 1985). Indeed, large differences in social context exist across the innovation process, especially when comparing the mostly internal phases of development and the external phase of commercialization. However, in order to be able to generalize the present theoretical reasoning across the complete innovation process, the hypotheses were consciously derived from fundamental, individual identity motives, which have been found to have general validity independent of social context. The proposed theory thus contends that members will identify with an innovation when they expect it to support their self-distinctiveness, self-continuity and self-enhancement, independently of the innovations' current development stage, that is, its embeddedness in different social contexts. Still, in order

to substantiate the context-independent validity and generalizability of this study's theoretical propositions, two analyses were conceived and performed that address different social contexts. With one study focussing on an internal development context and the other on an external market context, the empirical section is able to cover the fundamental differences in social contexts that may become relevant throughout innovation processes.

Methods

Sample and survey

The hypothesized relationships were assessed in the empirical setting of a health-care organization, 'HealthCo', which is a world leader in providing therapeutic solutions in a certain disease area. A for-profit context was consciously chosen to increase the study's empirical contribution, as much organizational identity and identification research has been performed in not-for-profit organizations (Bhattacharya, Rao, & Glynn, 1995; Dukerich et al., 2002; Gioia & Thomas, 1996; Golden-Biddle & Rao, 1997; Mael & Ashforth, 1992; Olkkonen & Lipponen, 2006).

Large-scale, quantitative data collection was preceded by a qualitative research phase of several months, which served to comprehensively understand HealthCo's identity as well as its innovations. In order to control as much as possible for transient, contextual 'noise', the subsequent analysis was focussed on a specific part of the organization. Working with a relatively homogeneous unit promised to more precisely capture cognitive differences between individuals. If the organizational identity was correctly assessed to be of a holographic nature (Albert & Whetten, 1985), our findings could legitimately be generalized across the organization. A focus on the salesforce of the organization was chosen for several reasons. Firstly, the salesforce represents the organizational unit whose contribution is highly critical for

the success of the innovation at launch (di Benedetto, 1999), which is, again, key for an innovation's overall performance (Hultink, Griffin, Hart, & Robben, 1997; Hultink, Hart, Robben, & Griffin, 2000; Hultink & Robben, 1999; Kleinschmidt, de Brentani, & Salomo, 2007). Thus, achieving a high level of identification among the salesforce is of premier relevance. Secondly, it was by far HealthCo's largest and thereby arguably most representative unit. Thirdly, prior research has shown that social comparison phenomena are highly relevant at the organizational boundaries (Bartel, 2001), as accessibility and fit of the organizational category are especially high in the face of competing 'outgroups'. Fourthly, boundary-spanning organizational members have seldom been the subject of organizational identity and identification research (for exceptions, see (Ahearne, Bhattacharya, & Gruen, 2005; Bartel, 2001; Richter, West, van Dick, & Dawson, 2006)).

Two studies were performed, each focussing on one innovation that differed from the other mainly by its development stage. Both innovations represented therapeutic product/market innovations within the companies' most important therapeutic areas. They were novel in terms of including new product features or different regimes of administration and addressing customer segments that had not previously been targeted by the company.

The introduction of the first innovation (Inno1) was internally announced shortly after the qualitative research phase had begun and was launched a few months afterwards. Survey data for Inno1 was collected six months into its launch phase. At this time, the second innovation (Inno2) had just been internally announced to the salesforce and indicated to be launched within a few months. This situation thus represented a unique opportunity to gather data by means of the same instrument in the same organization for studying two innovations in different social contexts: Inno1 had recently been launched and thereby reached an external market context, while Inno2 was still in an internal development context, having just been internally announced

(Inno2). As both studies used the same constructs, the following discussion on measures is also applicable to both. The two studies are differentiated when their specific results are reported and discussed.

A multi-section survey instrument was developed consisting mostly of established scales, which were adapted to the present research question. The questionnaire was pre-tested and subsequently sent by regular mail with a cover letter to all 200 salesforce members involved in the launching of Inno1 and Inno2. A total of 154 usable questionnaires were returned after one reminder, resulting in a 77% response rate. Respondent demographics were as follows: 69% were female, 41% had a higher education (graduate or post-graduate degree), average tenure was about eight years and 51% of the members were part of the southern sales district.

Measures

Distinctiveness effect: Sheldon and Bettencourt's three-item scale of group distinctiveness (Sheldon & Bettencourt, 2002) was used as a basis for measuring the effect that an innovation has on perceived organizational distinctiveness. Vignoles et al. have shown that group distinctiveness can be conceptualized as consisting of the three dimensions 'difference', 'position' and 'separateness' (Vignoles et al., 2000; Vignoles, Chryssochoou, & Breakwell, 2002). Sheldon and Bettencourt's construct covers the difference and position dimensions of distinctiveness. To ensure a complete representation of the construct domain, an item covering separateness from a scale developed by Vignoles et al. (Vignoles et al., 2002) was added. Finally, a fifth item was also included, based on an expression of difference that had repeatedly been brought up by organizational members throughout the interviews. In their original form, these items gauged organizational distinctiveness as perceived in its current state. However, as the study's focus is on how organizational distinctiveness is perceived to change due to an

innovation, the items had to be modified accordingly. Each item was reformulated as a statement about the perceived impact of the innovation on the organization's distinctiveness. Respondents indicated on a 5-point Likert scale (Likert, 1932) to what extent they agreed or disagreed with them. Wherever Likert scales are used in this study, 5-point scales are chosen over alternatives with more categories in order to lower ambiguity in interpretation of the response categories. Choosing a higher number has not been found to improve data characteristics substantially (Dawes, 2008), especially when opinions towards the measured content diverge widely (Masters, 1974), which is the case in the present study. Sample items of the distinctiveness scale included, for example, "*This innovation makes HealthCo more different from its competitors*", or "*This innovation makes HealthCo seem more unique, compared to its competitors*". Exploratory and confirmatory factor analyses were performed, which led to the exclusion of two items. The remaining items were averaged to create a single distinctiveness effect score. Coefficient alphas were .94 for Inno1 and .96 for Inno2.

Inconsistency effect : An established 6-item scale was available for measuring organizational inconsistency from the organizational identity literature (Kreiner & Ashforth, 2004). Interviews had provided confidence that respondents could conceive how an innovation may create inconsistency in HealthCo's identity. Again, all items were reformulated in order to capture the perceived impact of the innovations on organizational identity inconsistency. Final items include, for example, "*This innovation leads to HealthCo standing for contradictory things*", or "*This innovation leads to HealthCo's major beliefs being less consistent*". Two items were excluded after exploratory and confirmatory factor analyses were performed. The remaining items were averaged to a single score with reliabilities of .88 for both Inno1 and Inno2.

Prestige effect : The perceived effect of innovations on organizational prestige was captured based on two widely used scales, that is, collective self-esteem (Luhtanen & Crocker, 1992)

and perceived organizational prestige (Mael & Ashforth, 1992). Three items of Mael and Ashforth's scale were specific to the university context of their study and were not adequate for our for-profit context. The resulting combined set of nine items was reworded so that it captured the effect of innovation on organizational prestige. Pre-tests revealed that three items were viewed as either redundant or of little relevance, leaving a scale of six items. Pre-tests also indicated that respondents found it helpful to think of organizational prestige in the eye of a specified reference group instead of a 'generalized other' (Dodds, Lawrence, & Valsiner, 1997; Mead, 1934). This is consistent with the notion that social identity salience is dependent on social context. The customer segment towards which both innovations were targeted (i.e., general practitioners) was identified as a highly relevant reference group. Social identity is highly salient when sales representatives relate to customers, because in such contexts, categorization as an organizational member provides a good comparative and normative fit. Final items included, for example, "*This innovation leads to HealthCo being, overall, considered better by general practitioners*", or "*This innovation leads to general practitioners thinking more highly of HealthCo*". Exploratory and confirmatory factor analyses were performed that led to further exclusion of two items, one of which was not unexpected, as this item from Mael and Ashforth's scale really referred to individual and not group prestige. Reliabilities for the resulting 3-item scale were .92 for Inno1 and .91 for Inno2.

Identification with an innovation : Organizational research has developed and fruitfully applied a broad range of measures for identification (for reviews, see (Bergami & Bagozzi, 2000; Pratt, 1998; Riketta, 2005; van Dick, 2001). Bergami and Bagozzi's measure of self-categorization was chosen, which captures the degree of overlap between self-image and the perceived image of an organization (Bergami & Bagozzi, 2000). This measure has proven reliable and useful in organizational identification research (Ahearne et al., 2005; Bartel, 2001; Dukerich et al., 2002).

It fits well the study's understanding of identification with an innovation as the perceived congruence of the image of an innovation with the self-image of an individual as an organizational member ('does this innovation represent who I want to be as an organizational member?'). Other widely used measures, such as Mael and Ashforth's scale (Mael, 1988; Mael & Ashforth, 1992), include items that have been argued to not only tap cognitive, but also affective or behavioural aspects (Bergami & Bagozzi, 2000). While these aspects have in other works been argued to belong to an overarching concept of identification (van Dick, 2001; van Dick, Wagner, Stellmacher, & Christ, 2004), the present study focuses on the cognitive aspect, that is, categorizing one's image of self jointly with the image one holds of the identification target. By limiting itself to the cognitive aspect of identification, Bergami and Bagozzi's scale has high discriminant validity against related concepts such as affective commitment and may thus be especially useful for an assessment of the causes and effects of self-categorization (Bergami & Bagozzi, 2000). The wording of the items – visual and verbal – was adapted to refer to the innovation as the identification target instead of the organization. Confirmatory factor analyses were successfully performed and the items were averaged to create a single score. Reliabilities for the scores were .92 in study 1 and .93 in study 2.

Controls: Several control variables were also included. The first three – *gender*, *age* and *education* – were demographic controls that are traditionally used in person-organization research (Kreiner & Ashforth, 2004). Moreover, age and the level of education have been shown to be related to innovative cognition and behaviour (Mumford & Gustafson, 1988). *Tenure* was also controlled for to account for the possibility that over time, a salesperson may settle into routines and be unwilling to change when faced with innovative approaches (Behrman & Perreault Jr., 1984; Cron, 1984). The *district* to which a salesforce member belonged was also controlled for, as the innovations were introduced by two different district leaders for the northern and the southern parts of the country. Prior research has shown that

members display greater loyalty towards leaders who they perceive to be highly prototypical for their category (Ellemers, De Gilder, & Haslam, 2004; Hogg, 2001), even in cases where leaders display deviant, undesirable behaviours (Bruins, Ellemers, & De Gilder, 1999). Hence, the reception and interpretation of an innovation could partly depend on the perceived characteristics of the leader who introduces it. A control that was specific for the study of the launched innovation (Inno1) was the amount of *time* members had spent with new customers speaking about the innovation. This variable was considered because individuals have been shown to display higher commitment (a concept close to identification) towards targets for which they have made personal investments (Buchanan, 1974; Sheldon, 1971). In sum, while the above variables are included as ‘controls’ – because they represent alternative explanations that are outside the main theoretical interest of the study – some of them represent interesting theoretical issues that have not yet been conclusively solved.

Results

Study 1

Bivariate correlations of all variables included in the first study on Inno1 are shown in table 1.1. Predictor variables were significantly correlated with the criterion variable for the main effects. Predictors showed moderate levels of correlation among each other. This did not come as a surprise, as innovations were expected to often impact more than one facet of the organizational identity at a time. In view of these correlations, collinearity was tested following Belsley, Kuh and Welsch (Belsley, Kuh, & Welsch, 1980). Collinearity proved not to be an issue, because the highest variance inflation factor was 1.57 for a main effects predictor variable and 2.52 for a control variable. Also, the conditioning number of the matrix of independent variables did not exceed 30.

Variables	Mean	s.d.	1	2	3	4	5	6	7	8	9	10
1. Identification with Innovation (1)	5.79	1.34	(.92)									
2. Age	4.92	1.88	.00	-								
3. Gender (female=1)	.69	.46	.07	-.22 **	-							
4. Education (graduate+=1)	.41	.49	.04	.12 †	-.13 †	-						
5. Tenure	8.06	6.55	-.16 *	.75 ***	-.12 †	.06	-					
6. Area (south=1)	.51	.50	-.21 **	.05	-.01	.03	.12 †	-				
7. Time spent	.42	.17	.02	-.32 ***	.07	.17 *	-.29 ***	-.02	-			
8. Distinctiveness effect of Innovation (1)	3.07	1.03	.47 ***	-.04	.00	-.07	-.07	-.21 **	-.01	(.94)		
9. Incongruence effect of Innovation (1)	2.44	1.08	-.49 ***	.18 *	-.02	.07	.19 *	.15 *	-.02	-.52 ***	(.88)	
10. Prestige effect of Innovation (1)	3.62	.88	.51 ***	-.03	.03	-.03	-.05	-.33 ***	.08	.47 ***	-.40 ***	(.92)

n=154. Reliability measures (Cronbach's alpha) are on the diagonal.

† $p \leq .10$; * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

Table 0.1: Descriptive statistics and correlations (Inno1)

Ordinary least squares regression analyses were performed for all hypothesized relationships. Results are shown in table 1.2. and provide support for all hypotheses regarding Inno1 (H1-H3). Members identified more strongly with Inno1 when they perceived it to increase organizational distinctiveness and organizational prestige. They identified less with Inno1 when they viewed it to raise organizational identity inconsistency. It should be noted, though, that perceived changes in organizational prestige ($p < .001$) and inconsistency ($p < .001$) were stronger and more significant predictors for members' identification with Inno1 than perceptions of change in organizational distinctiveness ($p < .05$). The overall regression model reached an R^2 of .44, to which the social identity-derived antecedents contributed .34.

Step and Variable	Model 1	S.E.	Model 2	S.E.
Controls				
Age	.28 *	.09	.31 **	.08
Gender (female=1)	.10	.25	.10	.20
Education (graduate+=1)	.05	.24	.08	.19
Tenure	-.34 **	.03	-.31 **	.02
Area (south=1)	-.18 *	.23	-.01	.19
Time spent	-.01	.72	-.02	.58
Main effects				
Distinctiveness effect of Innovation (1)			.17 *	.11
Incongruence effect of Innovation (1)			-.28 ***	.10
Prestige effect of Innovation (1)			.31 ***	.12
R^2	.10		.44	
R^2 adj.	.06		.40	
Overall F	2.43 *		10.85 ***	

n=154. Standardized coefficients are shown. DV: Identification with Innovation (1)
¹ $p \leq .10$; * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$; all two-tailed

Table 1.2: Regression models for identification with Innovation (Inno1)

Some of the controls' contributions to explaining identification with Inno1 were also noteworthy. The member's age and tenure were both significantly associated with their identification with innovations, but, somewhat surprisingly, in opposite directions. While a longer tenure was associated with weaker identification levels ($p < .01$), a higher age was predictive of stronger identification levels ($p < .01$). Another interesting finding is that the area

to which members belonged was a significant predictor for their identification with Inno1 ($p < .05$). This was only true in Model 1, though. When the main effects that capture members' perceptions of Inno1 were added in Model 2, the area effect vanished completely ($p = .88$). Gender and time spent with innovation were not significant predictors of members' identification with Inno1 in both models.

Study 2

As has been laid out earlier, a second study was performed to, firstly, provide replication and further validation for the above findings and, secondly, ensure the findings were consistent, independent of different social contexts. While study 1 had focussed on an innovation that had already been launched into the market (Inno1, external context), study 2 focussed on an innovation that was still in development (Inno2, internal context). The models run in study 2 in order to gauge the determinants of identification with Inno2 were equivalent to those used in the first study. Also, the set of predictor and criterion variables remained the same as in the prior study, with one exception among the controls. The control '*Time spent on innovation at the customers*' was not applicable to Inno2, as it had not yet been launched. Table 1.3. and table 1.4. present bivariate correlations and results from OLS analyses, respectively.

Variables	Mean	s.d.	1	2	3	4	5	6	7	8	9
1. Identification with Innovation (2)	5.81	1.83	(.93)								
2. Age	4.92	1.88	-.08	-							
3. Gender (female=1)	.69	.46	.04	-.22 **	-						
4. Education (graduate+=1)	.41	.49	-.08	.12 †	-.13 †	-					
5. Tenure	8.06	6.55	-.10	.75 ***	-.12 †	.06	-				
6. Area (south=1)	.51	.50	.00	.05	-.01	.03	.12 †	-			
7. Distinctiveness effect of Innovation (2)	2.62	1.27	.50 ***	.00	.05	-.12 †	-.04	-.05	(.96)		
8. Incongruence effect of Innovation (2)	2.93	1.23	-.47 ***	-.13 †	-.07	.06	-.03	.15 *	-.50 ***	(.88)	
9. Prestige effect of Innovation (2)	4.02	.91	.50 ***	-.13 †	.06	-.06	-.03	-.05	.34 ***	-.19 *	(.91)

n=154. Reliability measures (Cronbach's alpha) are on the diagonal.

† $p \leq .10$; * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

Table 0.3: Descriptive statistics and correlations (Inno2)

Again, predictor variables showed moderate amounts of correlation among each other, and low variance inflation factors and conditioning indices indicated that collinearity was not an issue (Belsley et al., 1980). Concordant with Study 1, all hypothesized relationships (H1-3) were supported when assessing Inno2. The total R^2 of the model reached .45, which was also very similar to Study 1.

Step and Variable	Model 1	S.E.	Model 2	S.E.
Controls				
Age	.00	.13	-.03	.10
Gender (female=1)	.02	.36	-.03	.27
Education (graduate+=1)	-.07	.33	.00	.25
Tenure	-.10	.04	-.08	.03
Area (south=1)	.01	.32	.09	.24
Main effects				
Distinctiveness effect of Innovation (2)			.22 **	.11
Inconsistency effect of Innovation (2)			-.31 ***	.12
Prestige effect of Innovation (2)			.37 ***	.14
R^2	.02		.45	
R^2_{adj}	-.02		.42	
Overall F	.42 n.s.		13.15 ***	

n=154. Standardized coefficients are shown. DV: Identification with Innovation (2)

[†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$; all two-tailed

Table 0.4: Regression models for identification with innovation (Inno2)

The fact that both studies yielded consistent findings provided initial evidence that the postulated main effects could be observed across different stages of the new product development process. They were valid for an innovation that was still under development in an internal social context (Inno2) as well as one that had already entered the launch stage, including an external social context (Inno1).

Both studies differed in two findings. Firstly, H1 found stronger support in Study 2 ($p < .01$) than in Study 1 ($p < .05$). Organizational distinctiveness expectations caused by an innovation were a stronger predictor in a pre-launch setting than in a post-launch situation. Secondly, it came as a

surprise that no control reached significance in study 2, while age, tenure and district had displayed significant explanatory power for the launched innovation in Study 1. Table 1.5. summarizes the findings.

Hypotheses		Findings
Cognitive identification with the innovation (Studies 1&2)		
H1:	Distinctiveness effect of innovation →	Cognitive identification with innovation (+) supported
H2:	Incongruence effect of innovation →	Cognitive identification with innovation (-) supported
H3:	Prestige effect of innovation →	Cognitive identification with innovation (+) supported

Table 1.5: Findings for hypotheses H1-3

Discussion

Theoretical implications

This study started out by recognizing that extant research on organizational identity and identification has mostly focussed on members' perceptions of the *current* organizational identity. Such emphasis on current organizational identity may have led to the preponderant view that organizational identity acts as an inertial force within organizations (Anthony & Tripsas 2016). The present study proposed, however, that moving beyond current identity perceptions and integrating idealized identity expectations as well as their dynamic interrelation (changing identity gap) could lead to different conclusions. Ideal organizational identity, which was defined as the organizational identity that members envision to best meet their own identity motives, was suggested to act as a scheme guiding members' interpretations of innovative organizational actions. The core proposition was that members would identify with innovative actions when they perceived these innovations to reduce the distance between current and ideal organizational identity. Five major conclusions can be drawn from the present findings:

Firstly, it appears that innovations may indeed influence the members' perceptions of their organization's current identity dynamics. High reliabilities and validities of the newly developed antecedents provided confidence that organizational members were effectively interpreting innovations as cues about who the organization is becoming. Such perceptions were strongly associated with the members' level of personal identification with the innovation. More precisely, members recognized innovations as highly consistent with themselves as organizational members when they perceived them as enhancing the organizational identity in important self-definitional dimensions. These conceptual and empirical insights represent the study's major contributions to extant research. While comparisons between identity perceptions and expectations had hitherto been conceptually viewed in a rather static way, this research added a dynamic perspective by arguing that innovative organizational actions change perceptions of the current organizational identity and modify the currently perceived identity gap. Moreover, while previous research on such identity comparison processes had focussed on organizations as targets of identification, the present work extends the approach in showing that innovative actions which change perceptions of organizational identity may become targets of identification as well.

Secondly, the present study also clearly shows that organizational members may come to interpret in a very different way the same innovative organizational action taking place in the same context. While some members evaluated a specific innovation clearly as positively enhancing the organizational identity along important dimensions, others saw the very same innovation as having a pronouncedly negative impact. Thus, whether an organizational action is recognized as a threat or as an opportunity with all the related consequences (Jackson & Dutton, 1988) appears to be in the eye of the organizational member and guided by the interpretive scheme of perceived organizational identity. The existence of such differences

between members, then, points to the need for diligent organizational identity management, which should accompany any innovative change process.

Thirdly, the findings fully confirmed that organizational identity aspects guide the interpretation of organizational actions when they address members' social identity motives of self-distinctiveness, self-continuity and self-enhancement. Members' perception of the innovations' impact on organizational distinctiveness, consistency or prestige played a key role for the members' level of identification with the innovation, explaining nearly half of its variance (including controls). Interestingly, regression models revealed that distinctiveness effects were less strongly associated with identification than prestige effects. A tentative explanation may be that members do not look primarily at their organizations as vehicles for achieving self-distinctiveness. Organizations are typically rather large and diverse social groups and may thus offer limited opportunities for accentuating individual distinctiveness. Members may have other opportunities within the organizational realm to more effectively support their sense of being unique and different from others. As social identity research has argued, members of larger organizations may recur to smaller, intraorganizational identification targets that are better apt to meet their need for self-distinctiveness, for example their strategic business unit, department or project team. Identification at the larger organizational level may thus not serve a need for distinctiveness, but inclusiveness (Brewer, 1991). If members attach relatively little personal value to group distinctiveness at the organizational level, it can also be expected that they will not care much when it changes through innovative actions. If so, the evaluation of innovative actions should not be strongly influenced by their impact on organizational distinctiveness. This could explain why distinctiveness effects of an innovation were only weakly associated with identification levels, although members were clearly capable to discriminate distinctiveness effects from prestige and inconsistency effects. The two predictors

that remain of premier importance at the organizational level, then, are an innovation's perceived effect on the organization's prestige and its consistency.

Fourthly, the results also challenge the common notion that older individuals find it more difficult to accept innovations. On the contrary, age was even significantly positively associated with members' identification with the launched innovation (Inno1). However, its close correlate, tenure, was confirmed as a negative predictor for members' identification (Inno1). This surprising divergence between age and tenure may indicate that the ageing of a workforce is not *per se* an issue for the innovativeness of an organization. The present results rather suggest that older members only become a hindrance for the successful implementation of innovations when they stay within the same organization for many years. This may point, again, towards the function of organizational identity as a scheme for guiding interpretation of organizational actions. The identity gap between current and ideal perceptions of the organizational identity can be expected to be relatively small for longer-tenured members because their staying with the organization evidences that they have been able to mitigate dissatisfaction with their organization's identity through real changes or changes in perception, instead of leaving the organization. In Tajfel and Turner's words, they have been able to successfully exert social change or social creativity strategies instead of social mobility strategies (Tajfel & Turner, 1979). If longer-tenured members can be generally characterized as perceiving a smaller identity gap, then their perception of the ideal organizational identity, that is, their scheme for interpreting the innovation will tend to be relatively close to their view of the current identity. In consequence, most changes to the currently perceived identity will be viewed by them as widening the gap instead of narrowing it. Thus, the interpretive scheme of the organizational identity which forms during members' tenure and not their ageing processes may be the root cause that makes it difficult for them to identify with innovations.

Fifthly, the present studies illustrate how organizational identity insights can be fruitfully integrated with innovation research. More specifically, they provide evidence that organizational identity represents an interesting avenue for studying ‘cultural’ influences in innovation processes. The studies evidence the explicitness and instrumentality of the identity concept (Schultz, Hatch, & Larsen, 2002) and thereby exemplify how organizational identity can serve as a way to solve the difficulties in assessing and capturing cultural aspects of an organization (Fiol, Hatch, & Golden-Biddle, 1998). The present studies thus complement extant innovation literature in the new product development (NPD) area, which has focussed on behaviours and largely ignored cognitive influences (Ernst, 2002).

In conclusion, the results stress the importance to progress beyond a simplistic understanding of resistance to innovations. Resistance to innovations cannot be reduced to a general reluctance to change due to the unwillingness of organizational members to give up familiar routines and habits. Rather, the present studies provide a more sophisticated understanding which acknowledges that members may often withstand innovative change because they wholeheartedly believe that resistance is in the organization’s very best interest. In explaining the determinants of employee identification with innovations, the present studies not only provide a more grounded account of member acceptance of or resistance to innovations, but also offer very specific levers for creating and managing identification with innovations. Such managerial options, which can be derived from the present results, will be discussed in detail in the section on managerial implications.

Limitations and future research

Results and conclusions need to be viewed in light of the present studies' conceptual and methodological limitations. Firstly, the studies adopted a simple and straightforward understanding of identification in order to be able to parsimoniously integrate insights from organizational identity, social identity and innovation within a single conceptual model. The present research thus only differentiated between different degrees of identification, from low to high. Research in organizational identification suggests that it may be fruitful to consider additional forms of identification. For example, Elsbach proposed and Kreiner and Ashforth tested an expanded model, proposing additional dimensions of identification, including neutral identification, ambivalent identification and disidentification (Elsbach, 1999; Kreiner & Ashforth, 2004). They were able to show that such dimensions of identification were related to different antecedents. It would be interesting to consider to what extent their model could be applied to the present model of identification with innovations. For instance, Kreiner and Ashforth showed that perceptions of organizational inconsistency were strongly associated with disidentification. They argued that disidentification differs from a low level of identification in representing an active separation from the organization, possibly including a repulsion of the organization's mission, culture or centrally defining features (Elsbach, 1999; Elsbach & Bhattacharya, 2001). While not probable in the present case, it is easily imaginable that an innovation may be perceived to dramatically alter organizational identity for the worse, so that members would not only show a low level of identification, but actively resist it. Another extension of the concept of identification consists in differentiating the cognitive, affective, evaluative and conative dimensions of the identification concept (van Dick et al., 2004).

Secondly, careful attention was paid in deriving antecedents from within the theoretical domain of the social identity approach. Still, in view of the fact that about half of the variance in the identification construct remained unexplained by the chosen determinants, additional

antecedents can certainly be found which are independent of the organization's identity. For instance, it is imaginable that the studied innovations may also have had an effect on the members' perceptions of the roles that they were expected to fulfil as salespersons, because customer segments, selling strategy or style were somewhat modified due to the innovation. Hence, salesforce members may have perceived that they were not the same salesperson as before, with their role having changed for better or worse due to the innovation. Assessing an innovation's impact on individuals' role identities may be an additional driver of identification and could be studied in similar manner to this present work. This study did not focus on role identity, as the primary interest lay in conceptually developing and empirically testing the relationship between an organization's innovation and members' organizational identity perceptions.

Thirdly, the present study largely assumed that social identity as organizational members was equally salient and equally important to all respondents. Generally speaking, this assumption certainly represents a rough simplification of the reality, because social identity research has clearly shown that the salience of an individual's social identity is often dependent on context. However, the specific empirical context of the study allowed for this simplification without compromising its validity. Salespersons spend most of their time every workday in situations where they are viewed and treated as representing their organization. Thus, their social identity as sales representatives was expected to be chronically accessible and thereby highly salient (Oakes, 1987). In other words, organizational members were assumed to have developed a deep-structure type of identification with their organization (Rousseau, 1998), which implies that their social identity salience was not necessarily dependent on situational cues. This notion was supported by the fact that interviews did not reveal apparent differences whether they were performed in private home or professional work contexts. To be sure, the interviews and the

questionnaire provided cues that addressed the individuals as organizational members and thus made the desired social identity salient. Taken together, there was confidence that respondents saw themselves as organizational members when filling out the questionnaire. Nevertheless, future studies should assess to what degree certain differences in social identity salience and identification with the organization may moderate the present findings. For instance, it may be possible that members who weakly identify with their organization are less concerned about an innovation's impact on the organization, but may still strongly identify with the innovation when it enhances their role identity as salespersons, independent of the organization.

Fourthly, the present studies only assessed two different innovations. As a consequence, generalizations of findings to different stages of the innovation process as well as different kinds of innovations need to be understood as tentative and preliminary. They certainly await confirmation in different industries, types of innovations and stages of development. It is easily conceivable that not all types of innovations may be related to the organizational identity to the same degree. For instance, an organization's innovative products may act as stronger cues for members' perceptions of the organizational identity than other intraorganizational innovations such as new organizational processes or the introduction of new workplace technologies. Therefore, future research could assess the validity of the social-identity-based reasoning presented in this paper for additional types of organizational innovations.

Finally, typical methodological limitations of cross-sectional data apply. When bivariate and multivariate analyses are performed based on data from a single survey instrument at the same point in time, they cannot be postulated to unambiguously support a causal relationship. As the main effects under study all belong to the realm of individual cognition, it could well be that the current account, which proposes a strictly sequential process from cognitive antecedents to cognitive outcomes, may represent a rough simplification. It seems probable that the main effect

variables will iteratively influence each other in a reciprocal process. More specifically, members who have started to identify with an innovation because it appears to support the current organizational identity may be predisposed to additional information that affirm their assessment. Thus, the more members identify with an innovation, the more it may appear to them as enhancing the organization's identity. However, this secondary, reciprocal effect should be weaker than the primary effect that was hypothesized here, as the secondary effect is largely based on a cognitive bias, while the primary effect is grounded in a member's cognitive categorization.

References

- Adarves-Yorno, I., Postmes, T., & Haslam, S. A. 2006. Social identity and the recognition of creativity in groups. *British Journal of Social Psychology*, 45(3): 479-497.
- Adarves-Yorno, I., Postmes, T., & Haslam, S. A. 2007. Creative innovation or crazy irrelevance? The contribution of group norms and social identity to creative behavior. *Journal of Experimental Social Psychology*, 43(3): 410-416.
- Ahearne, M., Bhattacharya, C. B., & Gruen, T. 2005. Antecedents and Consequences of Customer-Company Identification: Expanding the Role of Relationship Marketing. *Journal of Applied Psychology*, 90(3): 574-585.
- Albert, S., & Whetten, D. A. 1985. Organizational identity. In L. L. Cummings, & B. M. Staw (Eds.), *Research in organizational behavior*, Vol. 8: 263-295. Greenwich, CT: JAI Press.
- Amabile, T. 1996. *Creativity in context*. Boulder, CO: Westview Press.
- Anderson, N., De Dreu, C. K. W., & Nijstad, B. A. 2004. The routinization of innovation research: a constructively critical review of the state-of-the-science. *Journal of Organizational Behavior*, 25(2): 147-173.
- Ashforth, B. E. 1998. Epilogue: What Have We Learned, and Where Do We Go From Here? In D. A. Whetten, & P. C. Godfrey (Eds.), *Identity in Organizations*: 268-272. Thousand Oaks: Sage.
- Ashforth, B. E. 2001. *Role transitions in organizational life: An identity-based perspective*. Mahwah, NJ: Erlbaum.
- Ashforth, B. E., Harrison, S. H., & Corley, K. G. 2008. Identification in Organizations: An Examination of Four Fundamental Questions. *Journal of Management*, 34(3): 325-374.
- Ashforth, B. E., & Mael, F. 1989. Social Identity Theory and the Organization. *Academy of Management Review*, 14(1): 20-39.
- Ashforth, B. E., & Mael, F. 1998. The power of resistance: Sustaining Valued Identities. In R. M. Kramer, & M. A. Neale (Eds.), *Power and influence in organizations*: 89-120. Thousand Oaks: Sage.
- Bartel, C. A. 2001. Social Comparisons in Boundary-spanning Work: Effects of Community Outreach on Members' Organizational Identity and Identification. *Administrative Science Quarterly*, 46(3): 379-414.

- Behrman, D. N., & Perreault Jr., W. D. 1984. A Role Stress Model of the Performance and Satisfaction of Industrial Salespersons. *Journal of Marketing*, 48(4): 9-21.
- Belsley, D. A., Kuh, E., & Welsch, R. E. 1980. *Regression Diagnostics*. New York: Wiley.
- Bergami, M., & Bagozzi, R. P. 2000. Self-categorization, affective commitment and group self-esteem as distinct aspects of social identity in the organization. *British Journal of Social Psychology*, 39(4): 555-577.
- Bhattacharya, C. B., Rao, H., & Glynn, M. A. 1995. Understanding the bond of identification: An investigation of its correlates among art museum members. *Journal of Marketing*, 59(4): 46-57.
- Brewer, M. B. 1991. The Social Self: On Being the Same and Different at the Same Time. *Personality & Social Psychology Bulletin*, 17(5): 475-482.
- Brown, A. D., & Starkey, K. 2000. Organizational identity and learning: A psychodynamic perspective. *Academy of Management Review*, 25(1): 102-120.
- Bruins, J., Ellemers, N., & De Gilder, D. 1999. Power use and differential competence as determinants of subordinates' evaluative and behavioural responses in simulated organizations. *European Journal of Social Psychology*, 29(7): 843-870.
- Buchanan, B. 1974. Building organizational commitment: The socialization of managers in work organizations. *Administrative Science Quarterly*, 19(4): 533-546.
- Anthony, C., & Tripsas, M. 2016. Organizational Identity and Innovation. *The Oxford Handbook of Organizational Identity*, 1-26.
- Chen, S., Chen, K. Y., & Shaw, L. 2004. Self-Verification Motives at the Collective Level of Self-Definition. *Journal of Personality & Social Psychology*, 86(1): 77-94.
- Cooper, R. G. 1994. Third-generation new product processes. *Journal of Product Innovation Management*, 11(3): 3-14.
- Cooper, R. G. 2008. Perspective: The Stage-Gate Idea-to-Launch Process - Update, What's New, and NexGen Systems. *Journal of Product Innovation Management*, 25(3): 213-232.
- Crawford, C. M., & Di Benedetto, C. A. 2006. *New products management*. Boston, Mass.: McGraw-Hill/Irwin.
- Cron, W. L. 1984. Industrial Salesperson Development: A Career Stages Perspective. *Journal of Marketing*, 48(4): 41-52.

- Daft, R. L., & Weick, K. E. 1984. Toward a Model of Organizations as Interpretation Systems. *Academy of Management Review*, 9(2): 284-295.
- Dawes, J. 2008. Do Data Characteristics Change According to the number of scale points used? An experiment using 5-point, 7-point and 10-point scales. *International Journal of Market Research*, 50(1): 61-77.
- di Benedetto, C. A. 1999. Identifying the Key Success Factors in New Product Launch. *Journal of Product Innovation Management*, 16(6): 530-544.
- Dodds, A. E., Lawrence, J. A., & Valsiner, J. 1997. The Personal and the Social: Mead's Theory of the 'Generalized Other'. *Theory Psychology*, 7(4): 483-503.
- Dukerich, J. M., Golden, B. R., & Shortell, S. M. 2002. Beauty Is in the Eye of the Beholder: The Impact of Organizational Identification, Identity, and Image on the Cooperative Behaviors of Physicians. *Administrative Science Quarterly*, 47(3): 507-533.
- Dutton, J. E., & Dukerich, J. M. 1991. KEEPING AN EYE ON THE MIRROR: IMAGE AND IDENTITY IN ORGANIZATIONAL ADAPTATION. *Academy of Management Journal*, 34(3): 517-554.
- Dutton, J. E., Dukerich, J. M., & Harquail, C. V. 1994. Organizational Images and Member Identification. *Administrative Science Quarterly*, 39(2): 239-263.
- Ellemers, N., De Gilder, D., & Haslam, S. A. 2004. MOTIVATING INDIVIDUALS AND GROUPS AT WORK: A SOCIAL IDENTITY PERSPECTIVE ON LEADERSHIP AND GROUP PERFORMANCE., *Academy of Management Review*, Vol. 29: 459-478: Academy of Management.
- Elsbach, K. D. 1999. AN EXPANDED MODEL OF ORGANIZATIONAL IDENTIFICATION., *Research in Organizational Behavior*, Vol. 21: 163-200.
- Elsbach, K. D., & Bhattacharya, C. B. 2001. Defining Who You Are By What You're Not: Organizational Disidentification and The National Rifle Association. *Organization Science*, 12(4): 393-413.
- Elsbach, K. D., & Kramer, R. M. 1996. Members' Responses to Organizational Identity Threats: Encountering and Countering the Business Week Rankings. *Administrative Science Quarterly*, 41(3): 442-476.
- Erikson, E. 1959. *Identity and the Life Cycle*. New York: International University Press.
- Ernst, H. 2002. Success Factors of New Product Development: A Review of the Empirical Literature. *International Journal of Management Reviews*, 4(1): 1-39.
- Festinger, L. 1957. *A Theory of Cognitive Dissonance*. Stanford, CA: Stanford University Press.

- Fiol, C. M. 2002. Capitalizing on Paradox: The Role of Language in Transforming Organizational Identities. *Organization Science*, 13(6): 653-666.
- Fiol, C. M., Hatch, M. J., & Golden-Biddle, K. 1998. Organizational Culture and Identity: What's the Difference Anyway? In D. A. Whetten, & P. C. Godfrey (Eds.), *Identity in Organizations*. Thousand Oaks, London, New Delhi: Sage.
- Fiol, C. M., & O'Connor, E. J. 2002. When Hot and Cold Collide in Radical Change Processes: Lessons from Community Development. *Organization Science*, 13(5): 532-546.
- Foreman, P., & Whetten, D. A. 2002. Members' Identification with Multiple-Identity Organizations. *Organization Science*, 13(6): 618-635.
- Fromm, E. 1942. *The fear of freedom*. London: Routledge & Kegan Paul.
- Gecas, V. 1982. The Self-Concept. *Annual Review of Sociology*, 8(1): 1-33.
- Gecas, V., & Burke, P. J. 1995. Self and Identity. In K. S. Cook, G. A. Fine, & J. S. House (Eds.), *Sociological perspectives on social psychology*: xiii, 721 p. Boston: Allyn and Bacon.
- Gioia, D. A., Schultz, M., & Corley, K. G. 2000. ORGANIZATIONAL IDENTITY, IMAGE, AND ADAPTIVE INSTABILITY. *Academy of Management Review*, 25(1): 63-81.
- Gioia, D. A., & Thomas, J. B. 1996. Identity, Image, and Issue Interpretation: Sensemaking during Strategic Change in Academia. *Administrative Science Quarterly*, 41(3): 370-403.
- Gioia, D. A., Thomas, J. B., Clark, S. M., & Chittipeddi, K. 1994. Symbolism and Strategic Change in Academia: The Dynamics of Sensemaking and Influence. *Organization Science*, 5(3): 363-383.
- Glaser, B. G., & Strauss, A. 1967. *The Discovery of Grounded Theory*. Chicago: Aldine.
- Golden-Biddle, K., & Rao, H. 1997. Breaches in the Boardroom: Organizational Identity and Conflicts of Commitment in a Nonprofit Organization. *Organization Science*, 8(6): 593-611.
- Granovetter, M. 1985. Economic action and social structure: the problem of embeddedness. *American Journal of Sociology*, 91: 481-510.
- Gundlach, M., Zivnuska, S., & Stoner, J. 2006. Understanding the relationship between individualism-collectivism and team performance through an integration of social identity theory and the social relations model. *Human Relations*, 59(12): 1603-1632.

- Haslam, S. A., Powell, C., & Turner, J. C. 2000. Social Identity, Self-categorization, and Work Motivation: Rethinking the Contribution of the Group to Positive and Sustainable Organisational Outcomes. *Applied Psychology: An International Review*, 49(3): 319-339.
- Hogg, M. A. 2001. A Social Identity Theory of Leadership. *Personality & Social Psychology Review*, 5(3): 184-200.
- Hultink, E. J., Griffin, A., Hart, S., & Robben, H. S. J. 1997. Industrial New Product Launch Strategies and Product Development Performance. *Journal of Product Innovation Management*, 14(4): 243-257.
- Hultink, E. J., Hart, S., Robben, H. S. J., & Griffin, A. 2000. Launch Decisions and New Product Success: An Empirical Comparison of Consumer and Industrial Products. *Journal of Product Innovation Management*, 17(1): 5-23.
- Hultink, E. J., & Robben, H. S. J. 1999. Launch Strategy and New Product Performance: An Empirical Examination in The Netherlands. *Journal of Product Innovation Management*, 16(6): 545-556.
- Jackson, S. E., & Dutton, J. E. 1988. Discerning Threats and Opportunities. *Administrative Science Quarterly*, 33(3): 370-387.
- Kelly, G. 1955. *The psychology of personal constructs*. New York: Norton.
- King, N. 2003. Involvement in Innovation: The Role of Identity. In L. V. Shavinina (Ed.), *The International Handbook on Innovation*: 619-630. Oxford: Pergamon.
- Kleinschmidt, E. J., de Brentani, U., & Salomo, S. 2007. Performance of Global New Product Development Programs: A Resource-Based View. *Journal of Product Innovation Management*, 24(5): 419-441.
- Kreiner, G. E., & Ashforth, B. E. 2004. Evidence toward an expanded model of organizational identification. *Journal of Organizational Behavior*, 25(1): 1-27.
- Likert, R. 1932. A Technique for the Measurement of Attitudes. *Archives of Psychology*, 22(140): 1-55.
- Luhtanen, R., & Crocker, J. 1992. A Collective Self-Esteem Scale: Self-Evaluation of One's Social Identity. *Personality & Social Psychology Bulletin*, 18(3): 302-318.
- Mael, F. 1988. *Organizational identification*. Wayne State University, Detroit, Michigan.
- Mael, F., & Ashforth, B. E. 1992. Alumni and their alma mater: A partial test of the reformulated model of organizational identification. *Journal of Organizational Behavior*, 13(2): 103-123.

- Markus, H., & Wurf, E. 1987. The Dynamic Self-Concept: A Social Psychological Perspective. *Annual Review of Psychology*, 38(1): 299-337.
- Masters, J. R. 1974. THE RELATIONSHIP BETWEEN NUMBER OF RESPONSE CATEGORIES AND RELIABILITY OF LIKERT-TYPE QUESTIONNAIRES. *Journal of Educational Measurement*, 11(1): 49-53.
- Mead, G. H. 1934. *Mind, self and society*. Chicago: University of Chicago Press.
- Mumford, M. D., & Gustafson, S. B. 1988. Creativity Syndrome: Integration, Application, and Innovation. *Psychological Bulletin*, 103(1): 27-43.
- Nag, R., Corley, K. G., & Gioia, D. A. 2007. THE INTERSECTION OF ORGANIZATIONAL IDENTITY, KNOWLEDGE, AND PRACTICE: ATTEMPTING STRATEGIC CHANGE VIA KNOWLEDGE GRAFTING. *Academy of Management Journal*, 50(4): 821-847.
- Oakes, P. J. 1987. The salience of social categories. In J. C. Turner, M. A. Hogg, P. J. Oakes, S. D. Reicher, & M. S. Wetherell (Eds.), *Rediscovering the social group: A self-categorization theory*.: 117-141. Oxford: Blackwell.
- Olkkonen, M.-E., & Lipponen, J. 2006. Relationships between organizational justice, identification with organization and work unit, and group-related outcomes. *Organizational Behavior & Human Decision Processes*, 100(2): 202-215.
- Piderit, S. K. 2000. RETHINKING RESISTANCE AND RECOGNIZING AMBIVALENCE: A MULTIDIMENSIONAL VIEW OF ATTITUDES TOWARD AN ORGANIZATIONAL CHANGE. *Academy of Management Review*, 25(4): 783-794.
- Pratt, M. G. 1998. To Be or Not to Be ? Central Questions in Organizational Identification. In D. A. Whetten, & P. C. Godfrey (Eds.), *Identity in Organizations*: 171-207. Thousand Oaks, London, New Delhi: Sage.
- Pratt, M. G., & Foreman, P. O. 2000. CLASSIFYING MANAGERIAL RESPONSES TO MULTIPLE ORGANIZATIONAL IDENTITIES. *Academy of Management Review*, 25(1): 18-42.
- Reger, R. K., Gustafson, L. T., Demarie, S. M., & Mullane, J. V. 1994. REFRAMING THE ORGANIZATION: WHY IMPLEMENTING TOTAL QUALITY IS EASIER SAID THAN DONE. *Academy of Management Review*, 19(3): 565-584.
- Richter, A. W., West, M. A., van Dick, R., & Dawson, J. F. 2006. BOUNDARY SPANNERS' IDENTIFICATION, INTERGROUP CONTACT, AND EFFECTIVE INTERGROUP RELATIONS. *Academy of Management Journal*, 49(6): 1252-1269.

- Riketta, M. 2005. Organizational identification: A meta-analysis. *Journal of Vocational Behaviour*, 66: 358-384.
- Rosenberg, M., Schoenbach, C., Schooler, C., & Rosenberg, F. 1995. GLOBAL SELF-ESTEEM AND SPECIFIC SELF-ESTEEM: DIFFERENT CONCEPTS, DIFFERENT OUTCOMES. *American Sociological Review*, 60(1): 141-156.
- Rousseau, D. M. 1998. Why workers still identify with organizations. *Journal of Organizational Behavior*, 19(3): 217-233.
- Schultz, M., Hatch, M. J., & Larsen, M. H. 2002. Scaling the Tower of Babel: Relational Differences between Identity, Image, and Culture in Organizations. *Expressive Organization*: 9-35.
- Shamir, B. 1991. Meaning, self and motivation in organizations. *Organization Studies*, 12: 405-424.
- Sheldon, K. M., & Bettencourt, B. A. 2002. Psychological need-satisfaction and subjective well-being within social groups. *British Journal of Social Psychology*, 41(1): 25-38.
- Sheldon, M. E. 1971. Investments and involvements as mechanisms producing commitment to the organization. *Administrative Science Quarterly*, 16(2): 142-150.
- Snyder, C. R., & Fromkin, H. L. 1980. *Uniqueness: The human pursuit of difference*. New York: Plenum.
- Steele, C. M. 1988. The psychology of self-affirmation: Sustaining the integrity of the self, *Advances in Experimental Social Psychology*, Vol. 21: 261-299. New York, NY: Academic Press.
- Stets, J. E., & Burke, P. J. 2000. Identity theory and social identity theory. *Social Psychology Quarterly*, 63(3): 224-237.
- Swann, W. B., Jr. 1990. To be adored or to be known? The interplay of self-enhancement and self-verification. In E. T. Higgins, & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition*, Vol. 2: 408-448. New York: Guilford Press.
- Tajfel, H. 1979. Individuals and groups in social psychology. *British Journal of Social and Clinical Psychology*, 18(2): 183-190.
- Tajfel, H. 1982. SOCIAL PSYCHOLOGY OF INTERGROUP RELATIONS. *Annual Review of Psychology*, 33: 1-40.
- Tajfel, H., & Turner, J. C. 1979. An Integrative Theory of Intergroup Conflict. In W. G. Austin, & S. Worchel (Eds.), *The Social Psychology of Intergroup Relations*: 38-43. Monterey, CA: Brooks/Cole.

- Tajfel, H., & Turner, J. C. 1985. The Social Identity Theory of Group Behavior. In S. Worchel, & W. G. Austin (Eds.), *Psychology of Intergroup Relations*: 7-24. Chicago: Nelson-Hall.
- Triandis, H. C. 1989. The Self and Social Behavior in Differing Cultural Contexts. *Psychological Review*, 96(3): 506-520.
- Triandis, H. C., McCusker, C., & Hui, C. H. 1990. Multimethod Probes of Individualism and Collectivism. *Journal of Personality & Social Psychology*, 59(5): 1006-1020.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Whetherell, M. S. 1987. *Rediscovering the social group: self-categorization theory*. Oxford, UK: Basil Blackwell.
- Ulrich, K. T., & Eppinger, S. D. 1995. *Product design and development*. New York: McGraw-Hill.
- van Dick, R. 2001. Identification in Organizational Contexts: Linking Theory and Research from Social and Organizational Psychology. *International Journal of Management Reviews*, 3(4): 265-284.
- van Dick, R., Wagner, U., Stellmacher, J., & Christ, O. 2004. The utility of a broader conceptualization of organizational identification: Which aspects really matter? *Journal of Occupational & Organizational Psychology*, 77(2): 171-191.
- Vignoles, V. L., Chryssochoou, X., & Breakwell, G. M. 2000. The Distinctiveness Principle: Identity, Meaning, and the Bounds of Cultural Relativity. *Personality & Social Psychology Review*, 4(4): 337-354.
- Vignoles, V. L., Chryssochoou, X., & Breakwell, G. M. 2002. Sources of distinctiveness: position, difference and separateness in the identities of Anglican parish priests. *European Journal of Social Psychology*, 32(6): 761-780.
- Vignoles, V. L., Regalia, C., Manzi, C., Golledge, J., & Scabini, E. 2006. Beyond Self-Esteem: Influence of Multiple Motives on Identity Construction. *Journal of Personality & Social Psychology*, 90(2): 308-333.
- Wagner, J. A. 1995. Studies of individualism–collectivism: Effects on cooperation in groups. *Academy of Management Journal*, 38(1): 152–172.
- Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. 2005. Organizing and the Process of Sensemaking. *Organization Science*, 16(4): 409-421.
- West, M. A., & Farr, J. L. 1990. Innovation at work. In M. A. West, & J. L. Farr (Eds.), *Innovation and creativity at work psychological and organizational strategies*: 3-13. Chichester, England; New York: Wiley.

Whetten, D. A. 2007. A Critique of Organizational Identity Scholarship: Challenging the Uncritical Use of Social Identity Theory When Social Identities Are Also Social Actors. In C. A. Bartel, S. L. Blader, & A. Wrzesniewski (Eds.), *Identity and the Modern Organization*: 253-272. Mahwah: Lawrence Erlbaum.