WORKING PAPER

IMPACT OF COHERENT VERSUS MULTIPLE IDENTITIES ON KNOWLEDGE INTEGRATION.

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Abstract

This paper addresses the influence of two competing views of social identity on knowledge integration within organizations. One view sees social identity primarily as a coherent characteristic of organisations, which can leverage knowledge integration by developing loyalty, trust, shared values and implicit norms (Kogut and Zander, 1996). The opposing view considers social identification as multiple and fragmented (Albert, Ashforth and Dutton, 2000; Alvesson, 2000). This fragmented view emphasises the problematic nature of social identity for knowledge integration. The aim of this paper is to examine these competing accounts and to develop insight under what conditions coherent respectively multiple social identities are advantageous for knowledge integration by the comparative analysis of two polar case studies. Our case studies reveal the different effects of a coherent versus multiple identity on knowledge integration and the need for a coherent company-wide social identity to leverage knowledge integration between organizational units.

Keywords: case studies, knowledge integration, multiple identities, organization theory, organization-wide identity, social identity

Introduction

The focus of this paper is the role of social identity in the process of knowledge integration within organizations. The importance of knowledge integration to the performance and even raison d'etre of organizations has been widely emphasized in recent years. Grant (1996) explains that knowledge integration is achieved by establishing a mode of interaction such that people's specialist knowledge is integrated, while minimizing the time spent transferring knowledge between them. Knowledge can then be defined as "a property of agents predisposing them to act in particular circumstances" (Boisot, 1998:12). Integration is thus seen as ranging from the synthesis of individuals' specialized knowledge into situation-specific systemic knowledge (Alavi and Tiwana, 2002) to more indirect forms of integration based on rules and procedures – termed 'combination' by Nonaka (1994). Such integration exists on different levels in the organization; namely within teams, sub-units, units or the organization.

As with knowledge integration, the formation of social identity has also been seen as a structural characteristic of hierarchical forms. Kogut and Zander (1996) argue that organizations as opposed to markets are characterized by social identity, bonding individuals together and providing benefits to the organization. The concept of social identity has been intensively studied and there are multiple definitions of this concept. In a review article, Ashforth and Mael (1989) give a good overview of the role social identity can play in organizatons. They provide a broad and inclusive account in describing social identity as "the perception of oneness with a group of persons".

The role of social identity in facilitating or inhibiting knowledge integration has been less widely discussed, with exceptions of the work of Kogut and Zander (1996) and Alvesson (2000; 2001). There is consensus in the literature on the existence of a relationship between social identity and knowledge integration, but not on the exact role and function of social identity (Kane, Argote, and Levine, 2005; Kogut and Zander, 1996). We argue that social identity has paradoxical features, which produce equivocal effects on knowledge integration. The contribution of this paper is to

explore these effects in order to support theory building and to summarize the range of effects on knowledge integration. Two cases are added to provide empirical illustrations on the complex and equivocal effects of social identity on knowledge integration. Although the cases do provide empirical prove of our theory, these case indicate the complexity of social identity and the need to further investigate the paradoxical features of social identity.

The first section presents different perspectives in social identity theory resulting in what we will term the integrationist's and fragmentationist's views on social identity. The next two sections analyze these two views in relation to knowledge integration. The following sections present and discuss material drawn from two case studies.

Social identity theory

Although the literature on social identity theory is extensive, there is still considerable conceptual vagueness (Haslam, Postmes, and Ellemers, 2003). The concept of organizational identity evolved from a metaphor to a predictor and analytical tool of behaviour in organizations (for an overview of the conceptual development of organizational identity see Haslam, Postmes, and Ellemers, 2003). Before explaining the outcomes of social identity, it is useful to differentiate the concept from concepts of organizational culture and organizational commitment. Culture can usefully be viewed as a label for basic principles on how to behave in the organization (Schein, 1988). Ashford and Meal (1989) explain that commitment refers to the beliefs in and the willingness to accept the organization's goals and values; social identity is about the oneness with a group and the self-categorization of individuals. Of course the three concepts are closely related. Social identity will result in a collective mind and a shared understanding among the group members (Haslam et al., 2003), who therefore believe and accept the same values (i.e. the values of the group with which one identifies). This is similar to what individuals with shared culture or commitment do. However, having shared values is clearly a consequence of social identity and not an antecedent. An individual can adopt the shared values to fit within an organizational culture or can be committed to the

organizational values because it is the most appropriate behaviour to reach ones' personal goals; but not necessarily because the individual categorizes oneself to a certain group. Hence, social identity clearly has different grounds.

Social identity is thus a process in which individuals classify themselves and others in groups and perceive oneness with a group, resulting in certain behaviour and outcomes (Ashforth and Mael, 1989; van Knippenberg, van Knippenberg, Monden, and de Lima, 2002). Ashford and Meal (1989) recognize three main consequences of organizational identity: individuals act in congruence with the salient aspects of the identity, group formation with strong intra-group cooperation, and reinforcing the distinctiveness and values of the group. Haslam et al. (2003) make the strong statement that shared identity is essential for the existence and success of communication, leadership and overall for the existence of organizational behaviour. Social identity has been pictured as the instrument that results in loyalty and altruistic behaviour towards the organization's aims, and that therefore should be maximized (Brown, Humphreys, and Gurney, 2005). More recent literature has begun to question the structural view on identity, tending towards a more fragmentationist perspective (Brown et al., 2005; Humphreys and Brown, 2002). It is possible to identify two broad strands in social identity theory literature, which we will term 'integrationist' and 'fragmentationist'. The integrationist camp views social identity as resulting in the attribution of employees towards the organization and its goals (Dutton and Dukerich, 1991; Leana and Van Buren, 1999), emphasizing the role of social identity in encouraging employee loyalty. In the fragmentationist perspective social identity is viewed as multiple, fragmented, processual and situational (Brown et al., 2005; Kärreman and Alvesson, 2001). The multiple social identities can be a source of power and conflicts reducing potential beneficial effects (Humphreys and Brown, 2002). We start from these two strands to unpack the relationship between social identity and knowledge integration.

Integrationist view on social identity and knowledge integration

Several researchers studying knowledge sharing have struggled with the problem of integrating knowledge among specialists and people with different mindsets and goals (Andrews and Delahaye, 2000; Argote, Ingram, Levine, and Moreland, 2000; Hansen, 1999). Jarvenpaa and Staples (2001) explain that people will only share their knowledge with colleagues when they consider their knowledge to be the property of the organization. Other authors discuss the problem of knowledge sharing and integration due to the embedded, sticky, and tacit character of knowledge (Baumard, 1999; Szulanski, 2000; Tsoukas, 1996). Furthermore, the lack of trust as a barrier to knowledge integration is widely recognized (Adler, 2001; McEvily, Perrone, and Zaheer, 2003; Swan, Newell, Scarbrough, and Hislop, 1999). Researchers have been seeking for organizational settings that minimize or overcome the limitations to knowledge integration, and social identity has been mentioned as one of the organizational characteristics that might be crucial in this debate (Cabrera and Cabrera, 2002; Kogut and Zander, 1996). However, the integrationist perspective and the fragmentationist perspective lead to very different conclusions on the role social identity can play in knowledge integration.

One of the most influential statements of the integrationist view in relation to knowledge integration is provided by Kogut and Zander (1996). They argue that social identity plays a pivotal role in overcoming problems of communication across the specialised knowledge created through the division of labour. The most prominent role of social identity in knowledge integration from the integrationist perspective is in the strong intra-group cooperation beyond personal relationships (Ashforth and Mael, 1989). Cabrera and Cabrera (2002) explain that people face a cooperation dilemma in relation to the exchange of knowledge when taking a relational view on knowledge integration; a dilemma that can be overcome though social identity because of the oneness to the group. Through the de-personalization in social identity, spontaneous and unconditional willingness to integrate knowledge within the group can occur, whatever the interactions and relationships between the individuals within the group. Thus, it is claimed that salient social identity goes beyond providing incentives for or reducing barriers to knowledge integration, but creates a context in which limits to knowledge integration (caused by individual and relational considerations) are overruled by

oneness with the group. In this account, social identity can play a different and more far-reaching role in knowledge integration compared to other concepts that have been mentioned as leveraging knowledge integration, such as culture, organizational commitment, social capital and trust.

In addition, social identity indirectly leverages knowledge integration through the development of shared beliefs, values, mindsets, trust, and loyalty. The literature suggests a recursive relationship between the formation of social identity and the development of a dominant set of beliefs forming a collective mind or knowledge structure (Ashforth and Mael, 1989; Beyer and Hannah, 2002). This links knowledge integration to the development of a knowledge base, allowing the absorption and application of knowledge in a new context (Cohen and Levinthal, 1990; Kim, 1993; Kogut and Zander, 1996). Kane, Argote, and Levine (2005) prove also that social identity is required to make people willing to accept knowledge from others. This is because social identity creates trust in others and their knowledge. Trust is very important to make people integrate their knowledge (Andrews and Delahaye, 2000; De Cremer, Snyder, and Dewitte, 2001; Jarvenpaa and Staples, 2001; Newell and Swan, 2000).

Social identity also influences knowledge integration by making people loyal to the organization (Haslam et al., 2003; Kane et al., 2005). Much knowledge is developed in an embodied or embrained form (Blackler, 1995) as human capital. This kind of knowledge is highly mobile since it can exit the organization when employees leave. Therefore, loyalty based on social identity is important in order to retain that knowledge inside the company (Alvesson, 2001; Robertson and Swan, 2003). Moreover, Albert, Ashforth, and Dutton (2000) suggest that loyalty based on social identification has become more important in the current environment because corporate downsizing has decreased long-term stable employee-employer contracts; a shift in employment relationships that places greater reliance on identity rather than career structures as a means of retaining key employees and their knowledge. Furthermore, people will consider their knowledge as the property of the organization instead of their personal property when they identify with the organization and will,

therefore, accept more readily that their knowledge should be made available to others (Jarvenpaa and Staples, 2001).

Summarized, the integrationist view proposes a positive relationship between social identity and knowledge integration based on the high level of cooperative behaviour inherent of the group oneness and the development of shared beliefs, organizational knowledge, trust, and loyalty (*proposition 1*).

This is not to say that all proponents of the integrationist view see social identity as operating in a purely benign way. Fiol (2001), for example, warns of the risk of social identity leading to greater resistance to change. Inefficient collective behaviour and routines (among others developed through social identity) are difficult to change (Levitt and March, 1988; von Krogh and Roos, 1996; Walsh, 1995). Furthermore, social identity creates a common filter through which the organization or community apprehends the environment, termed 'dominant logic' in the literature (Bettis and Prahalad, 1995). It filters information from the environment when converted to organization or community specific knowledge (Boisot, 1998). Hence, a second proposition based on the integrationist view states that social identity can limit knowledge integration through filtering knowledge or impeding change (*proposition 2*).

Fragmentationist view on social identity and knowledge integration

Kärreman and Alvesson (2001) question in their fragmentationist view the chance that employees will associate primarily with an organization-wide social identity. Effective knowledge integration in organizations requires that this integration is not limited to a sub-group of the organization. The benefits for knowledge integration through social identity mentioned above exist when there is a coherent social identity (Kane et al., 2005). However, a coherent organization-wide identity is only one possible scenario. Large companies are seen to encompass a range of more or less fluid identities developed by units or workgroups (Alvesson, 2000; Ashforth, 1989; Araujo, 1998). Van

Knippenberg and van Schie (2000) explain that people prefer to identify with smaller groups with a sufficient level of distinctiveness, and with groups that have characteristics similar to the individuals' identities. Hence, organizations can have: 1) one company-wide social identity without sub-group social identities (termed coherent identity); 2) multiple social identities, e.g. different social identities in each unit, possible in coexistence with a company-wide social identity; or 3) members do not identify with the organization at large or sub-groups, but predominantly with external groups, such as professional associations like audit associations or associations of advisors.

This second scenario is highly plausible because the workgroup identity is expected to be stronger than the organization-wide social identity (van Knippenberg and van Schie, 2000; van Knippenberg, 2003). This is because workgroups are smaller and more similar to personal identities, and within the organization the workgroup identity becomes salient in contrast to the other workgroup identities. In this second scenario, the beneficial effects of social identity on knowledge integration are limited to the unit or workgroup level (Ellemers and Van Rijswijk, 1997). It is well-known that groups in organizations, such as work units, will favour the group even when this might harm others outside the group (Tajfel and Turner, 1979), e.g. by integrating knowledge within only the group. In addition, different social identities can even be a source of conflict between units (Child and Rodriguez, 2003). This, in turn, strongly deteriorates the relationships between the groups in the organization and, hence, knowledge integration between these groups. Thus, social identity will have a beneficial effect on intra-group knowledge integration, and at the same time create limits to inter-group knowledge integration, potentially overruling the benefits of social identity for the group. Social identity is then, from an organization point of view, not only absent as a superior mechanism for eliminating knowledge integration barriers but is, through reinforcing the social identities of the groups within the organization and especially making the different mindsets more salient, a knowledge integration barrier in itself. Strong salient sub-group social identities will thus create inter-group behaviour that decreases knowledge integration between groups, such as viewing the integration in relational instead of social terms, distrusting the knowledge, disloyalty to other groups, and emphasising different mindsets. As a consequence, multiple identities can result in sub-optimal knowledge integration.

In the third scenario, with the dominance of external social identities, identification processes of the organizational members undermine the benefits organizations tend to have in protecting their knowledge (Liebeskind, 1996; Spender, 1996). Such external identification, for example, may mean that knowledge flows more readily within such professional communities than it does within the source organization – indeed, may even be transferred to other organizations by this route (Alvesson 2000; Brown and Duguid, 2001). The loyalty inherent in social identity that has indirect positive effects on knowledge integration, according to the integrationist's view, becomes a major threat to the organization's knowledge integration and even knowledge protection when organizational members categorize themselves in external groups and are, therefore, more loyal to these groups.

In summarizing, applying the fragmentationist view to knowledge integration leads to the conclusion that the benefits for knowledge integration typically ascribed to the influence of social identity become a threat to the knowledge integration in organizations when sub-identities or identities of external groups dominate. This results in the following proposition: social identity is a barrier to knowledge integration in the organization when sub-identities or external identities dominate over a coherent company-wide identity (*proposition 3*). Figure 1 summarizes the positive and negative effects of social identity on knowledge integration in different scenarios. The dotted line indicates a recursive relationship between knowledge integration and the development of social identity. Through knowledge integration, groups can develop a stronger social identity, which in turn helps in furthering knowledge integration in the group (Child and Rodriguez, 2003).

"take in figure 1"

Case illustrations

Data collected using case study research illustrate relationships between social identity and knowledge integration. The data are not used to test propositions or to provide a thorough case study on the process of social identity. We selected two cases based on theoretical sampling: namely, a small entrepreneurial company versus a large merged company. Hence, two polar types of companies that, according to the literature (Fiol, 2001), can result in distinctive social identities. The small entrepreneurial company is a Belgian publishing company with a staff of 40 people and here indicated as the advertising case study. The second case study, here indicated as the finance case study, was the audit department of a Belgian bank in a larger international financial group. Hence, the first case encompassed one whole organisation; while the second case referred only to a part of a very large organization. However, this part, the audit department was larger than the advertising company is the first case study. The same concepts were studied in the two cases but the methods of data collection were different to be more adapted to the particular company context. There is triangulation in both studies on the level of the measurement instruments (Jick, 1979), namely by combining interviews, questionnaires, and document analysis.

Data were collected in the advertising case study by: 1) historical data collected since the founding of the company through years of cooperation between the research department of two of the authors and the case company; 2) four interviews (of 1.5h to 2h each) with each member of the management team, leading one of the four main departments; and 3) an additional questionnaire completed by the 34 employees. The interviews and experiences based on cooperation between the researchers and the company were the main data source. They explained the working and position of the company, the way knowledge was integrated and described the values, norms, and social identity of the organization. Social identity was thus assessed by open questions on the existence of sub-groups, the existence of a coherent identity, and the extent to which members associate with the coherent identity and with external groups. The questionnaire provided interesting additional evidence on the existence and way of knowledge integration and the extent to which the members have shared values, trust, goals, and mental models, that can be reflections of a coherent social identity. Each member of the organization (who worked more than three months in the company) filled out a 5-point Likert scaled

questionnaire. The questionnaire inquired about specific potential impediments on knowledge integration and was part of a larger quantitative study on knowledge integration in different organizations. See appendix 1 for the list of variables and the descriptive statistics.

The complexity of the Finance case required that we focused our data collection much more. The best way to achieve this was by closely following the working of the organization but in a non-obstructive way. Data were therefore collected by following a project team that worked during two months on the testing of a new audit procedure. Data were collected by interviewing the people from the team (seven people were interviewed for 1h to 2h), by attending all four team meetings, by analyzing all official internal documents concerning the project, and by joining two audit interviews in the field that were part of the project. The interviews were open and probed for knowledge integration issues, existence of coherent and multiple social identities, and the level of identification with these social identities. The documents provided evidence of the existence of formal knowledge integration, the existence of routines, and the changing of routines. The interview data were taped, transcribed, and coded. Statements on social identity were coded based on whether or not they referred to each of the different scenarios of social identity that can exist in organizations and the impact this social identity has on the development of trust, loyalty, resistance to change, and other issues outlined in figure 1, and in this way, on knowledge integration. Furthermore, we asked for explanations on the observations made during the project and background information on previous experiences, incidents, and changes. The team members were from different units of the organization and from different pre-merger organizations. Functions and positions of the interviewees that we quote cannot be revealed for confidentiality reasons. The limited number of people involved in this data collection did not allow us to make generalizations on social identities in this organization; nonetheless, the data provided us with a good illustration of the relationship between multiple social identities and knowledge integration.

Identity as knowledge integration facilitator

Our first case study, the advertising case, can be described as a young entrepreneurial firm that has published job-advertising papers since 1996. It was able to grow very fast and to conquer its main competitor in four years. Hard work and fighting for the smallest advertisement were seen as important ingredients in their success. In this advertising case it appeared to be quite easy to develop a coherent identity. First, the advertising company was small (van Knippenberg and van Schie, 2000). Second, strong identities exist often when identities are more salient, which was the case here. Haslam et al. (2003) argue that competition is a source for salient social identity because it makes the identity more distinctive and salient compared to the identities of other groups. Here, the identity is clearly based on competition with another organization. One of the key managers described the social identity she associated with as: *"keep on fighting to be the best and remain the best"*. Another interviewee explained that the identity was based on a common 'enemy', their main competitor: *"We pay attention when new people come in, because we were the underdog, real challengers, but new people now come to work for a market leader and thus in a total different situation but we stimulate the fighters mentality"*. Yet another used the term *'rebellion'* to picture the identity. Narratives and communication, here about the fighter's metaphor, are developing a social identity (Kärreman and Alvesson, 2001). Third, the identity needs to be spread and transmitted to new members (Ashforth, 1989). The entrepreneur and his team of five key people seemed to be effective in transferring the strong company identity. New recruits were socialized to identify with that 'fighters' mentality': *"There is exemplary behaviour by the seniors, the others follow automatically without any further communication on this exemplary behaviour"*. This was also illustrated by the following statement of another one of those key people: "W*e drum this mentality in, to keep fighting even for the smallest advertisement."* Leaders can be 'entrepreneurs of identity': strongly influencing the development of social identity, and social identity is mediating the leadership effectiveness (Haslam et al., 2003; van Knippenberg, van Knippenberg, De Cremer, and Hogg, 2004). However, because of the large role of the key people and the entrepreneur in this organization, they could destabilize the organization and

its strong coherent identity when leaving (Albert and Whetten, 1985). Furthermore, this advertizing organization is successful, a winning team, making organizational members proud of the organization, which is another source for strong social identity (Haslam et al., 2003). Young successful start-ups are typically characterized by strong homogeneous identities (Fiol, 2001).

The fact that the advertising company was located on one site and that the employees all had to work closely together might have been another reason for the existence of a coherent organizational identity. However, literature is not clear about whether or not geographical proximity is important for social identity development, and several empirical studies even prove that geographical dispersion might increase social identity (Marks and Lockyer, 2005). Finally, due to the strong task interdependency in this organization, a situation in which the whole organization can be considered as the relevant workgroup, overruling the existence of the four official workgroups, might have occurred. Hence, workgroup identity and organizational identity seemed to coincide.

The identification of the employees with this company and its working style led to a high level of informal coordination and discourse through the socialisation of shared ways of thinking (Humphreys and Brown, 2002). This identification gave people a common goal, which resulted in very low rivalry and in high levels of trust and cooperation; a situation that is required for a high level of knowledge integration. Clearly, more and strong cooperative behaviour to reach the common organizational goal, the development of organizational knowledge in implicit routines and mental models, are caused by a strong coherent social identity. A high level of knowledge integration was reached, and this occurred seemingly spontaneously, not enhanced by formal systems or incentives.

This is confirmed by the correlation in the quantitative data between the variables of common knowledge, informal coordination, and trust and the variable knowledge integration (see appendix 1). The existence of a strong social identity was also demonstrated by the results of the questionnaire. Items in the questionnaire related to –but not measuring- social identity have high average scores on the 5-point scales, such as: "My colleagues would make personal sacrifices for our organization"

(3.94), "I can realise my personal professional goals in my job" (3.71), and "The goals of the department are consistent with my personal professional goals" (3.65). Furthermore, the questionnaire data indicated high scores on the variables of common knowledge, mental models, trust, and goal congruence and a low score on politicking. An especially high correlation in the questionnaire data between the variables politicking (-), knowledge withholding (-), trust (+), goal congruence (+), and common knowledge (+) indicated the potential role of identity in reducing opportunistic behaviour towards knowledge integration. However, shared mental models, which are a consequence of a strong social identity, do not correlate highly with knowledge integration, although the literature assumes such a relationship (Kogut and Zander, 1996). This particular finding does not confirm the relationship between social identity and knowledge integration; however, the other findings do confirm the relationship. Overall, we can state that there is a dominance of an organization-wide social identity with a positive effect on knowledge integration through the development of loyalty (among the senior people), trust, and organizational knowledge. Hence, combining qualitative and quantitative evidence from the advertising case supports our first proposition.

Among a small group of employees there was a large job turnover by people voluntarily leaving the company. Each time new people went through a social identification process that took up several months (Ashforth and Mael, 1989). One manager stated: *"You need to work here a while to 'feel' what the other departments want; this is not possible if you only worked here for a year, you need to have seen and heard more"*. Hence, knowledge integration through the loyalty social identity caused was not present among these employees because their identification process took more than a year. High employee turnover rates might seem to be in conflict with the very salient social identity that can be observed in this advertising case (Ashforth and Mael, 1989). This turnover was indeed the weak link in this organization's social identity. However, the turnover was situated among a small number of people that were on a low level in the organization and mostly young, especially among the newcomers. Newcomers had to identify themselves with this very salient organizational identity or they would not last long in the organization. This confirms again the strength of the identity and

the impact on members' behaviour. One interviewee mentioned: *"Someone who has not that style will not stay long or will not be allowed to stay long, one has to fit in"*. Hence, people leave the organization because of the saliency of the identity, conflicting with their individual identities, or simply because the organization cannot meet all the individuals' career expectations. Two of the interviewed department heads also claimed that they identified with external groups as well, namely web designers and journalists. However, identification with these groups was mentioned as not that important, but more as an additional information source.

Finally, according to the literature, a coherent social identity can also limit knowledge integration because of inflexibility and knowledge filtering. However, the organization demonstrated a high level of adaptability to environmental changes. Furthermore, none of the strategic changes, such as the launching of an additional paper for a specific audience or offering similar advert services via a website, had conflicted with the identity characteristics in the organization yet. Day to day decisions had to be flexible. *"A decision made can be changed within half an hour again, but this is the strength of our organization"* as indicated by an interviewee. However, these are only minor changes within a fixed framework. Hence, we can not confirm the second proposition on the negative impact of an organization-wide social identity. The implicit rules and values developed within the social identification process in the advertising company remained stable during the strategic changes, which was even a major success factor for this organization. Organizational change and social identity development are closely interwoven, and change should be viewed in terms of identity shifts (Jabri, 2004). Hence, the labels of the identity remained the same but the identity might nevertheless have been evolved due to the innovative actions (Gioia, Schultz, and Corley, 2000). Gioia et al. (2000) state that underneath those labels identity is continuously evolving during daily work processes.

Fragmented identities in the finance company

Many of the abovementioned characteristics were clearly different for our finance case study, the audit department of a financial group. The financial group was the result of a merger between two banks with quite different organizational cultures. It was composed of geographically dispersed units with low levels of workflow integration. This, together with its conglomerate features, seemed to have encouraged the proliferation of identities and clearly the dominance of workgroup identities (Ashforth and Mael, 1989; van Knippenberg and van Schie, 2000).

Mergers are likely to destroy previous identities (Child and Rodriguez, 2003). Nonetheless, the pre-merger social identities still existed to some extent in our case study. An interviewee and a member of the project team said "*We have to deal with the reality that we are not yet a real team and everyone's thinking comes from their own background.*" One auditor mentioned: "W*e have to be honest, the backgrounds of the two previous companies are totally different, the mentality, the way of thinking are fundamentally different*". Brown and Starkey (2000) explain that people tend to defend existing identities even when those identities become dysfunctional and prevent organizational change. Van Knippenberg et al. (2002) mention that specific merger-related factors affect the existence and shape of post-merger social identities. They argue that identity of pre-merger organizations can be continued partly in the post-merger organization, resulting in strong in-group bias. However, when there is a dominant one in the two merging organizations, members of the dominated organization feel that they are really in a different organization with a discontinuity in the social identity. The project leader and project supervisor were from the biggest one of the two merged companies, while the other four members in the project team were from the smaller pre-merger company. The larger pre-merger organization dominated in the number of people but also in the working methods and the systems copied from the larger pre-merger organization into the new merged organization. Following the literature (van Knippenberg et al., 2002; van Leeuwen, van Knippenberg, and Ellemers, 2003), this should result in a stronger in-group bias and a continuation of the social identity of the dominating one of the merged companies. Our limited data does not allow us to judge whether or not this was the case in our finance case study. The data indicated that in the project team both identities (of the dominant and dominated organizations) were equally salient.

When people from the different pre-merger companies had to cooperate, it clearly took some time before both sides became fully open to each other and to share information and knowledge, as was illustrated in the following statement of a team member: *"It is more waiting and not completely committing oneself. You notice that we still operate as if two different companies. The ones from x know each other and if one from y comes in, he needs to be judged before they tell him something."* He also explains that in some larger departments *"there are still 'blocks' formed by the two original companies".* Another team member mentioned that when you met a new person of uncertain background, you still were able to determine from which part of the pre-merged company he or she came from just by the way he or she communicated and behaved: *"The way of communicating shows from which side [original companies] he comes"* This is a situation that will take a lot of time to change, and might endure for a long time among the older employees, as was stressed by the project leader. The manager of the central audit unit at headquarters emphasized that among the young and new employees, a nascent identification with the new merged company was present but was as yet too marginal to be effective. The possibility for the development of a new identity was reduced by the uncertainty arising from the changing situation in the company's market and organizational restructuring. Identity gives certainty and continuity, but the development of identity needs time. In highly emergent environments strong social identity cannot be easily established (Fiol, 2001).

The subgroup identities were also a source of conflict (Ashforth and Mael, 1989). One team member mentioned: *"There is a difference in style, a more direct communication style in the company where I come from; you have to take this into account because if you don't, it generates conflicts and you end up in a conflict situation which is not really dramatic but it happens from time to time".* There was, for example, a conflict between the project supervisor and the manager of one of the local units. This conflict was about the responsibility and workload for the local units in the project. The members of the project team considered it as very typical for cooperation with that particular unit. One team member emphasized the rather difficult communication: *"You have seen the problems in our project group, people from local departments who make trouble about issues which are things that they should not be bothered about. And that is constantly like that, that is because those people simply*

still function differently, still in the old way of working". Hence, the latter indicated that the communication problems were situated in the continuation of the different pre-merger identities.

However, the same interviewees emphasized that in their smaller units, which were also mixed pre-merger groups, such conflicts were absent; *"There is open communication and there are no conflicts, except in the beginning. Problems occur more between different larger groups and regions and among the department heads."* Within the different local units social identity was stronger, resulting in more fluent and informal sharing of knowledge. Interviewees did not mention many typical characteristics of the audit department or the bank in global with which they could have identified. However, we did observe the expression of social identities related to the particular job and work processes. For example, the people who followed internal audit training identified with that training group. *"We had our little group with all people who followed the same training course for internal auditor and we had to work on an assignment and there was real openness, good communication, no barriers at all"*. Hence, workgroup identities dominated pre-merger organizational identities. Sub-identities created through the merger became only relevant when people from different regions and workgroups had to cooperate. The case illustrates the scenario in which multiple social identities of sub-groups are dominant. Different identities can cause conflicting norms, goals, and visions as confirmed in the case study (Ashforth and Mael, 1989). The interviewees confirmed this by emphasizing the different jargon, headquarters mentality versus local cultures, different views on how to execute and divide the work in the project, and the different goals of the project. Hence, we did not observe the development of values, trust, organizational knowledge, and loyalty based on social identity in this Finance case. On the contrary, the multiple social identities were reducing the development of such company-wide values and were even a source of conflict.

Knowledge integration between regions was very formal and occurred strictly following the hierarchical paths. In answering the question of whether or not there were informal rules, one of the team members answered: *"No, everything is written down in a very detailed way, so you know exactly what is expected from your work"*. A need for more knowledge integration was strategically

recognized and attempts were made through training and projects involving people from different units. However, those inter-unit projects did not succeed in crossing the existing mental boundaries and were therefore not leveraging knowledge integration as intended. The team members mentioned that intense knowledge integration only occurred within the own workgroup with which they identified. Even putting people in a project group, such as the one we studied, did not guarantee knowledge integration, especially when the team members came from groups with different social identities (Child and Rodriguez, 2003). The development of trust in the team, followed by the creation of a dominant social identity in the group, is required first. Clearly, our third proposition on the dominance of sub-group identities is illustrated here.

The audit department of the finance company faced a high need for change. Because of the weak company-wide identity, we expected low resistance to change (Fiol, 2001). Yet here the identities were nonetheless constraining the required change. The sub-identities were hard to integrate and to adapt to changes. Moreover, different social identities can change separately from each other and from the weak company-wide identity, resulting in a deviation between those identities of which some are conflicting with the strategic direction of the organization. Moreover, we noticed that although identity was evolving, it did not always change in the direction the organization liked it to evolve. Consequently, social identities might no longer support the global strategy and even become a barrier instead of a benefit to the organization. Hence, resistance to chance and social identity deviating from organizational goals are a characteristic of a multiple identity organization as well, providing an additional barrier of multiple social identities on knowledge integration not yet recognized in the literature.

Conclusion

The claim that knowledge integration is crucial for the rationale and performance of a firm has long been discussed (Lam, 2000; Spender, 1996; Teece, 1998; Tsoukas, 1996). The dominance of an organization-wide social identity has clear benefits for the integration of knowledge between units in

organizations. However, as illustrated by our case, multiple identities weaken the positive relationship between social identity and knowledge integration. In particular, many multiple identities hinder an overall organizational identity, and thus the development of company wide trust, common knowledge, and loyalty as mechanisms to enhance knowledge integration. Thus, it must be emphasized that social identity is a mighty but dangerous instrument for knowledge integration. It can be a superior instrument in overcoming most barriers to knowledge integration, but can also increase barriers to a level that knowledge integration becomes impossible. The development of an organization-wide identity is not evident and the diversity of sub-identities within one organization is mostly large (Humphreys and Brown, 2002). Social identity construction is an ongoing process in organizations, in which tensions between individual, group and organization identities arise, and, hence, the existence of a dominant identity is unstable, making the effects of social identity on knowledge integration unpredictable on the organizational level. Our cases did not confirm the expected negative consequences of a coherent social identity through the creation of a filter and change resistance. In fact, these negative consequences were more present in the multiple identity scenario.

However, our data illustrating these conclusions are limited and suffer from the usual limitations to case study research (Scandura and Williams, 2000). Neither of our two cases experienced the dominance of external social identities. An interesting extension of our research would be the inclusion of a case with this third social identity scenario. Further research is also required, in particular, on the development of identity itself, and why similar companies can exhibit large differences in the strength and situated character of their identities. It would be interesting to look at intermediate forms between pure organizations and pure market relations. Can a strong identity be developed in network organizations or even among parties engaged in long-term market contracting? Our case studies 'explored' the role of social identity in knowledge integration. Further research could go in depth into this issue. What kind of knowledge is most affected and what is the most optimal level of social identification from a knowledge integration stance allowing a balance between

integration and flexibility? Overall, our study suggests that the role of social identity in knowledge integration, though currently under-explored, represents an important challenge for future research.
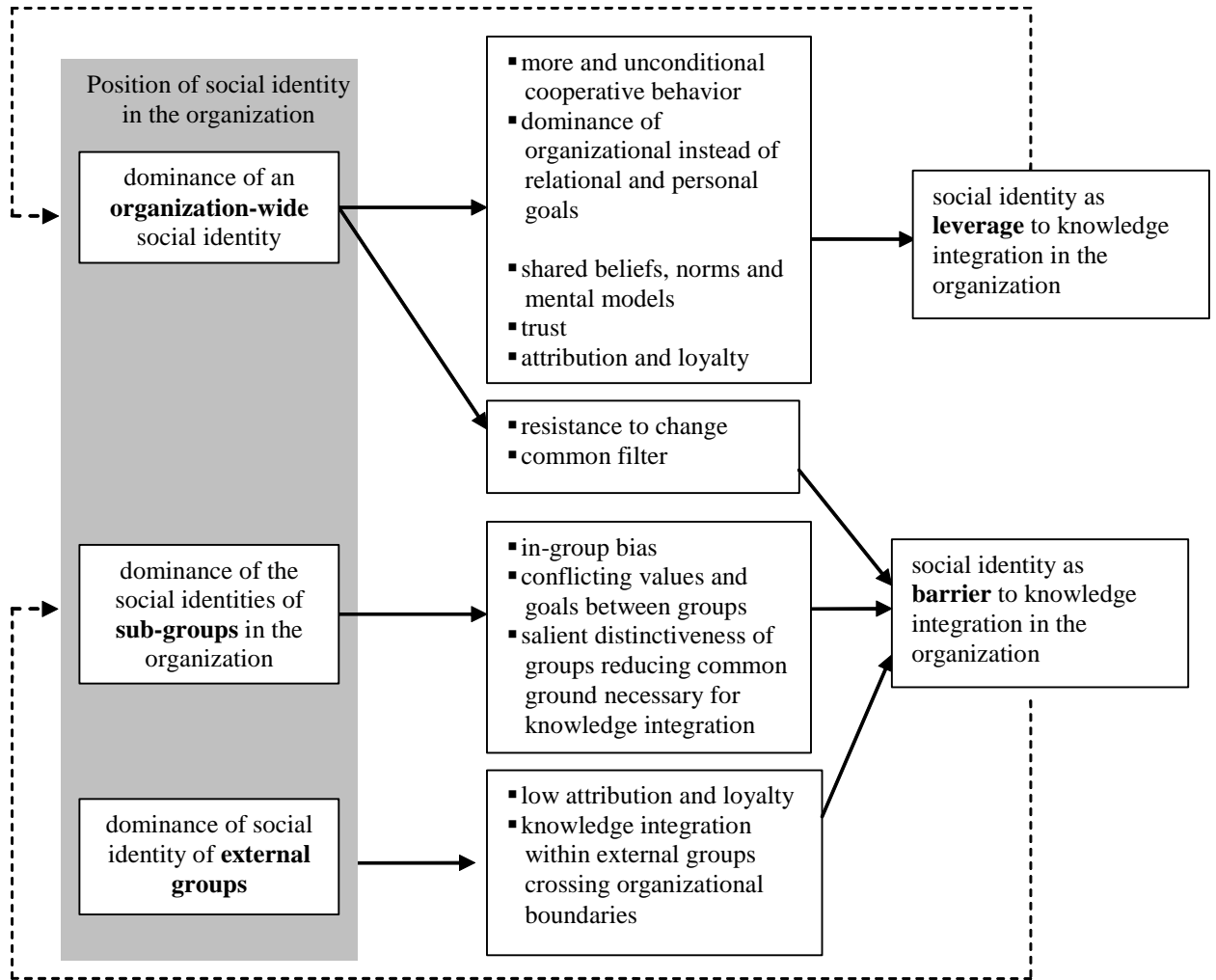
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Figure 1: Social identity and knowledge integration.

Position of social identity in the organization		
dominance of an organization-wide social identity	▪ more and unconditional cooperative behavior ▪ dominance of organizational instead of relational and personal goals ▪ shared beliefs, norms and mental models ▪ trust ▪ attribution and loyalty	social identity as **leverage** to knowledge integration in the organization
	▪ resistance to change ▪ common filter	
dominance of the social identities of sub-groups in the organization	▪ in-group bias ▪ conflicting values and goals between groups ▪ salient distinctiveness of groups reducing common ground necessary for knowledge integration	social identity as **barrier** to knowledge integration in the organization
dominance of social identity of external groups	▪ low attribution and loyalty ▪ knowledge integration within external groups crossing organizational boundaries	

Appendix I: Descriptive statistics for the questionnaire data in de advertising case.

The questionnaire in the advertising case study measured the following variables: politicking, shared mental models, common knowledge, formal and informal coordination, trust, goal congruence (between individual and organizational goals), knowledge withholding and knowledge integration (informal and formal) measured in the questionnaire are relevant here because they are related or influenced by social identity.

A few scales were adopted from existing questionnaires, the others were newly developed. The scale on politicking and part of the scale on trust were adapted from Devos et.al. (2001). The other trust items were adapted from Spreitzer and Mishra (1999). Questions on mental models were partly adapted from Millward and Jeffries (2001). Questions on common knowledge were partly adapted from Szulanski (1996). The scale on formal coordination was based on Miller (1986). The questionnaire was pre-tested in a professional firm where it indicated a high level of construct validity

Means, standard deviations, intercorrelations and Cronbach alphas (in italic).

	Mean	St. dev.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
politicking	2.56	0.69	*0.77*								
shared mental models	3.43	0.46	-0.12	*0.64*							
common knowledge	3.85	0.38	-0.38*	0.02	*0.62*						
formal coordination	2.93	0.66	-0.17	0.52**	0.40*	*0.76*					
informal coordination	3.50	0.46	-0.40*	-0.01	0.63**	0.39*	*0.71*				
trust	3.93	0.50	-0.69**	-0.06	0.68**	0.17	0.44**	*0.91*			
goal congruence	3.73	0.60	-0.71**	0.02	0.40*	0.02	0.41*	0.59**	*0.73*		
knowledge withholding	2.18	0.56	0.72**	-0.15	-0.61**	-0.37*	-0.30	-0.70**	-0.54**	*0.76*	
knowledge integration	3.11	0.48	-0.37*	-0.15	0.40*	0.13	0.57**	0.41*	0.31	-0.42*	*0.75*

* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)