The Concept of Team Transactive Memory Systems
Developing an Extended Model for Organizational Contexts

Volker Wagner
Chair for Human Resource Management, University of Hamburg, Von-Melle-Park 5, Hamburg, Germany

Keywords: Transactive Memory Systems, Knowledge Sharing, Team Processes, Shared Knowledge Structures.

Abstract: There is an ongoing research debate about how to conceptualize transactive memory systems and how they can potentially influence team performance in organizational contexts. Current research mostly seems to focus on the meta-knowledge about the team's expertise distribution in combination with the transactive processes for encoding, storage, and retrieval of information. However, there is still confusion about the interrelations between different components of transactive memory systems. We discuss current issues and develop an extended model of team transactive memory systems which integrates shared task representations and interrelations between individual components to explain how and why teams manage knowledge for a specific task.

1 INTRODUCTION

The ability of a team to efficiently create, share, and utilize knowledge is regarded as a dynamic capability that enables an organization to gain a lasting competitive advantage (Argote and Ren, 2012). Consequently, if we could thoroughly understand this knowledge management within teams, we would gain an invaluable insight into how teams coordinate and use knowledge to accomplish specific tasks. With this knowledge, it would be possible to explain performance differences between knowledge worker teams and to identify issues of low performing teams.

One of the more extensively used constructs to capture this form of knowledge management is the notion of Transactive Memory Systems (TMS) originally developed by Wegner and colleagues (1985). After almost 30 years of research, there is still an ongoing debate about how to conceptualize team TMSs and the stored knowledge, how to outline the transactive processes to encode, store, and retrieve information, and how teams use TMSs to manage and apply their knowledge (as discussed in current reviews, e.g., Peltokorpi, 2008; Ren and Argote, 2011; Lewis and Herndon, 2011).

Knowledge management in a team can be understood as a form of team knowledge coordination for a specific task. So, it is surprising to find little consideration of the task type and shared task representations, and their influence on knowledge differentiation and information sharing in conceptual development, as well as direct empirical assessment in TMS research. Published articles show the basic concept of TMS to be somewhat reduced in scope to storing differentiated knowledge and meta-knowledge about the team's expertise distribution without a shared representation of the team characteristics or the underlying task structure (e.g., Ren and Argote, 2011).

We argue that this simplification does not capture the value of the TMS concept for organizational research and that on this account the TMS concept should be extended. By considering the organizational context, the role of shared task representations, and TMS component interrelations, our extended model aims to support research in explaining differences in the relationship between applied TMS measures and team performance in different organizational contexts. While the proposed model is by no means final, we want to offer our early findings to initiate a discussion about the role of shared task representations in TMS research.

The following short paper is thus structured as follows: First, we briefly explain the original concept of TMS and the specifics of the dyadic research context. Second, some of the current issues in TMS research are discussed on this theoretical basis. Finally, we integrate our first findings into an

Wagner V..
The Concept of Team Transactive Memory Systems - Developing an Extended Model for Organizational Contexts.
DOI: 10.5220/0005149903190325
In *Proceedings of the International Conference on Knowledge Management and Information Sharing* (KMIS-2014), pages 319-325
ISBN: 978-989-758-050-5

extended model of team TMS in organizational contexts.

2 THEORETICAL OVERVIEW

2.1 The Original Concept of Transactive Memory Systems

TMSs were first proposed by Wegner and colleagues (1985) to explain how cognitively interdependent couples manage knowledge entering their dyad. In theory, a TMS consists of a content component and a process component.

The content component is called Transactive Memory (TM), which is "an organized store of knowledge that is contained entirely in the individual memory systems of group members" (Wegner et al., 1985, p. 256). TM is called transactive, because sharing information between individual memories depends on social interaction (Lewis, 2003). It can contain both differentiated and integrated knowledge.

Integrated knowledge in a TM is shared between all group members. This can either be explicit information about a specific topic (lower-order information) or higher-order information about the expertise distribution within the group (location of knowledge). An example of shared higher-order information would be the knowledge shared between all group members that one individual is an expert in the field of tax accounting. Theoretically, this shared higher-order information would allow all group members to reduce search processes since the individual with expertise in a specific topic is easily identifiable.

In contrast to integrated knowledge, differentiated knowledge is not shared between the team members, but theorized to be unique to each group member (following our example, this would be explicit knowledge about tax accounting). The proposition here is that a differentiated knowledge structure would positively influence the group's ability to store relevant knowledge since individual memory is limited and thus redundant information should be avoided. Following this, a group would likely develop a differentiated knowledge structure for lower-order information with experts for specific topics.

While Wegner and colleagues mention a dyad's tendency towards an integration of all relevant knowledge (higher-order and lower-order), they make no statement about the optimal distribution of knowledge in a group or team.

The process component of a TMS consists of this social interaction or so called transactive processes. These processes enable the encoding, storage and retrieval of information through the group's communication in for example discussions and electronic conversations (Hollingshead, 2010). Accordingly, the quality of sharing information within the group should depend on how efficiently group members can communicate.

As explained in the first section, there is still no conceptual clarity as to how to define these transactive processes and how to integrate explicit communicative interactions into TMS research (see Peltokorpi, 2008).

2.2 Research Assumptions in the Dyadic Context

To understand the differences between the dyadic context and different organizational contexts (and the according performance implications), one must be aware of the implicit assumptions in this intimate couple research:

- Couples here are assumed to be cognitively interdependent and to be aware of this interdependence;
- Individuals in couples are assumed to implicitly trust each other;
- Their task of interest here is to manage knowledge entering the dyad as efficiently as possible. Wegner and colleagues were interested in how and why couples divide their cognitive labor.

Not all of those assumptions can be directly transferred to an organizational setting with teams and team members as units of interest. This seems to be one possible explanation as to why we still cannot completely explain how TMSs influence team performance. To further understand the relationship between TMS and team performance in organizational contexts, we discuss conceptual issues in TMS research on this theoretical basis in the next section.

3 CONCEPTUAL ISSUES IN TRANSACTIVE MEMORY RESEARCH

In this section, three conceptual issues in TMS research are briefly elaborated. These issues are the foundation for developing the extended TMS model in the fourth section. A full list of issues discussed in

current TMS research can be found in recent TMS reviews (e.g., Peltokorpi, 2008; Ren and Argote, 2011; Lewis and Herndon, 2011) and will be further analyzed and integrated into our ongoing study.

3.1 Discrepancies in Defining Transactive Memory Systems

In their recent review, Lewis and Herndon (2011) discussed one possible explanation for differences in TMS research and performance implications. Researchers define the concept and its components according to their specific research question. While it is important to consider the specifics of the studied team, task and organization, this conceptual fragmentation hinders the comparability of empirical studies.

In some studies, the terms TMS and TM have however been used interchangeably and the concept of TMS reduced to the shared knowledge about the group's expertise distribution (see Peltokorpi, 2008). This definition fails to incorporate the dynamic nature of team member's sharing information and specializing in different fields of expertise. Peltokorpi also promoted the reintegration of communicative processes into TMS research.

3.2 The Role of Shared Task Representations

Another issue mentioned in TMS research is the role of task types, and, more specifically, the role of shared task representations in team TMSs (e.g., Peltokorpi, 2008; Lewis and Herndon, 2011; Ren and Argote, 2011). While there seems to be a growing consensus about the role of the task types in moderating the relationship between TMSs and team performance, there are few studies in which the role of shared task representations has been directly measured and analyzed. One particular example of this is the study by Brandon and Hollingshead (2004). They conceptualized Task-Expertise-Person (TEP) units as the basis for storing information in the integrated part of a TMS.

This consideration is similar to the concept of shared mental models (SMM). SMMs are defined as "knowledge structures held by members of a team that enable them to form accurate explanations and expectations for the task" (Cannon-Bowers et al., 1993, p. 228). Research on SMMs of the task and the team has focused on analyzing the positive relationship between these types of SMMs and team performance (e.g., Mohammed et al., 2010).

However, the current conceptualization of TMS in organizational settings does not include a shared understanding of the task (Peltokorpi, 2008; Ren and Argote, 2011).

3.3 The Relationship between Knowledge Differentiation and Team Performance

The general performance hypothesis in TMS research is based on the assumption that a differentiated knowledge structure is positively related to team performance. In theory, advantages of a working TMS in dyads and groups would be the ability to store a larger amount of information through reduced redundancy and a quicker access to this information through the hierarchically structured storage (Wegner, 1987). TMSs are seen as a cooperative division of labor for learning, remembering, and communicating knowledge, which theoretically would lead to this differentiation of knowledge (Ren and Argote, 2011). Research in laboratory settings has shown that a differentiated knowledge structure can have a positive effect on performance in memory recall or assembly tasks (e.g., Hollingshead, 1998a, 1998b). However, recent studies suggest that tasks which depend on group discussions and problem-solving might benefit from an integrated knowledge structure (Gupta and Hollingshead, 2010; Lewis and Herndon, 2011). In this context, there is still no conceptual clarity about the influence of differentiated and integrated team knowledge structures in organizational settings.

4 MODELLING TRANSACTIVE MEMORY SYSTEMS IN ORGANIZATIONAL TEAMS

To differentiate between couples (or groups) and teams in an organizational setting, a clear definition of what constitutes a team is needed.

Following Mathieu and colleagues (2008), we adopt Kozlowski and Bell's (2003, p. 334) definition of teams as collectives "(a) who exist to perform organizationally relevant tasks, (b) share one or more common goals, (c) interact socially, (d) exhibit task interdependencies, (e) maintain and manage boundaries, (f) and are embedded in an organizational context that sets boundaries, constrains the team, and influences exchanges with other units in the broader entity." As such, teams are understood as complex, social systems consisting of

individual team members in an organizational context (McGrath et al., 2000).
This understanding leads to a different perspective on the assumptions Wegner and colleagues made to describe cognitive interdependence in dyads. The underlying questions here are: 1) Why do team members share their knowledge, 2) what are the components of a team TMS, and 3) how would this TMS enhance team performance in a given task?

4.1 Reasons for Knowledge Sharing in a Team

Regarding the first question, teams have to accomplish tasks where knowledge matching the specific task such as problem-solving, decision-making, or simpler administrative tasks is needed (Lewis & Herndon, 2011). Following this, teams "are often composed of members with heterogeneous expertise so that the group can benefit from a larger knowledge pool than any individual member possesses" (Wittenbaum and Stasser, 1996, p. 15).
To be able to assess the specific knowledge needed, team members must have an understanding of the task requirements and expertise needed to accomplish the task. In contrast to interdependent couples which consist of fewer individuals, they would otherwise have no efficient coordination strategy for sharing each other's expertise (Brandon and Hollingshead, 2004).
This shared task understanding should entail an awareness of the team members' interdependence to accomplish the task. Without this awareness, the information sharing in teams would likely be hindered because team members could simply follow their individual goals or agendas (Stasser et al., 2000). The awareness of interdependence could be established through a common goal or interdependent performance measure (Lewis and Herndon, 2011).
Furthermore, the distributed expertise and the knowledge embedded within the individuals must be exchanged, discussed, and integrated in a so called communicative process of information elaboration (van Knippenberg et al., 2004). In this elaboration, team members would be made aware of additional expertise or new strategies of expertise combination that individuals gained over time.

4.2 Proposed Components of Team Transactive Memory Systems

Based on this short discussion about important aspects of team members sharing knowledge, it is possible to develop a preliminary extended model of team TMS in organizational contexts. In contrast to the basic model, the shared task representations, an awareness of interdependence, and the knowledge of how to access each other's knowledge have been integrated.
Therefore, a team TMS should have at least the following components:

- Individual expertise and knowledge embedded in this expertise; this expertise would be differentiated or integrated to some degree according to the task structure (and the shared task representation)
- A shared understanding of the team's expertise distribution embedded in the individuals' memories to utilize individual knowledge; this understanding should also contain the knowledge about how to access an individual team member's knowledge depending on individual characteristics
- A shared understanding about the task and its knowledge requirements; this understanding enables team members to evaluate their potential interdependence to accomplish the task
- An awareness of the team's cognitive interdependence developed through the shared task understanding; this awareness should be shared between team members
- Social interaction (communication) between the team members to share and combine their individual knowledge to create new knowledge; this interaction is also important to align and update the shared understanding about the expertise distribution and changing task requirements over time; also, this interaction constitutes the transactive processes in a TMS.

A team TMS in this form should develop over time by working together, discussing about how to accomplish the task, and sharing information as Wegner and colleagues (1985) initially proposed. Here, the focus would not exclusively lie on knowledge differentiation, but also on the influence of integrated knowledge structures matching the specific task requirements. Another important consequence of this definition would be that teams can have multiple TMSs matching different tasks. This proposition has already been made (e.g., Austin, 2003; Brandon and Hollingshead, 2004) and should be further integrated in TMS research.

4.3 Influence of Team Transactive Memory Systems on Team Performance and Processes

Our model of team TMS leads us to the final question of how a working team TMS can potentially enhance task performance, despite possible negative effects of knowledge differentiation. In theory, a TMS should enhance the memory performance of a team (see the discussion section 3.3). While this general performance hypothesis is quite basic, we propose that the relationship between a team TMS and team performance may be more complex than a direct influence on knowledge differentiation and possible coordination mechanisms.

Although the following performance propositions have been mentioned individually in TMS research, we argue that a holistic approach is needed to capture the interrelations between different TMS components in an organizational setting.

4.3.1 Positive Performance Implications

One possible explanation for a higher performance of teams with a working TMS in this form is that a team TMS would lead to a more efficient coordination between team members because team members would make less errors in task assumptions, communication, and sharing of knowledge (e.g., Liang et al., 1995; Moreland and Myaskovsky, 2000). Lewis (2003) integrated this explanation into indirect measurements of memory differentiation, task credibility, and task coordination, which could potentially indicate a working TMS without directly measuring the TMS structure and processes. These coordination mechanisms have also been studied in research on implicit coordination mechanisms (e.g. Jarvenpaa and Keating, 2011; Mohammed and Dumville, 2001) and expertise coordination (Faraj and Sproull, 2000).

Another advantage of a team TMS would be the possibility to transfer the team's developed strategies for knowledge combination and information sharing developed to other task contexts (Lewis et al., 2005). The hierarchical structure of the shared knowledge which leads to an arrangement of information in the context of other knowledge (Wegner et al., 1985) in combination with the experience of linking this knowledge to a specific task would possibly lead team members to understand the underlying principles of specific task contexts. This in turn could minimize transaction costs of adapting to new task contexts.

Furthermore, as Wegner and colleagues (1985) proposed, the improved discussion of unshared information could lead to team members integrating explicit information in other expertise dimensions into their own memory and combine these dimensions to create new information. This integrated structure has also been discussed in TMS research (e.g., Baumann and Bonner, 2011; Gupta and Hollingshead, 2010; Hollingshead, 2001; van Ginkel and van Knippenberg, 2008) and could potentially enable team members to further understand each other's perspective (Nonaka, 1994). The ability to understand different perspectives could in turn lead to more efficient group discussions and task coordination.

4.3.2 Interrelations between TMS Components

One of the effects of team members specializing in different fields of expertise is the growing knowledge diversity within the team (this effect would also exist in new teams consisting of experts). Whereas this specialization is assumed to have beneficial effects in dyads or groups, research has shown that knowledge diversity in an organizational setting can lead to a team discussing previously shared information in favor to new or more relevant information, preventing unshared and perhaps more relevant information to be discussed (Stasser et al., 1989). This favoring of shared information could thus have a negative influence on creativity and group decision-making.

Here, the sharedness of task-relevant information and a team's expertise distribution in the team TMS could counter this effect through a validation of knowledge and lead to a discussion of new and unshared information in favor of already shared information (Alavi and Leidner, 2001).

Another possible negative effect of knowledge diversity is the influence on trust and the psychological safety within a team (Edmondson and Roloff, 2009). Psychological safety is defined as a team's property that "facilitates the appropriate conditions to release individual knowledge, ultimately stimulating learning behavior" (ibid., p. 201). If a safety climate within a team is not present, knowledge diversity can potentially lead to issues in sharing this knowledge because team members would not trust each other's intentions (e.g. Edmondson, 1999). Shared task representations in combination with the awareness of the team's

cognitive interdependence could have positive effects on the team's psychological safety. This proposition is in line with research which analyzed the positive effects of shared task understanding on the team's expectations and trust (e.g., Ilgen et al., 2005; Borgatti and Cross, 2003; Mathieu et al., 2008; van Ginkel and van Knippenberg, 2008).

These possible implications of the extended model are by no means final and lead us to believe in a more complex nature of TMS dimensions and performance effects than depicted in current TMS frameworks.

5 CONCLUSIONS

Although in a preliminary form, our extended model offers a different explanation as to how team TMSs can potentially enhance a team's performance in an organizational setting compared to the general TMS performance hypotheses. The further proposed components of this model and the interrelations between different TMS components enable research to adapt the model to specific task and organizational contexts and in turn render it possible to compare future team TMS studies.

Despite the fact that this discussion and the proposed model represent a brief theoretical contribution, a review of research in adjacent fields - such as team mental models, agency behavior, the role of team leaders, social network theory, or task type differentiations - shows empirical results to be in line with the proposed component interrelations. Our aim is to integrate this research and empirical results to draw further implications for the extended team TMS model.

REFERENCES

Alavi, M. and Leidner, D.E. (2001), Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues, *MIS Quarterly*, Vol. 25 No. 1, pp. 107–136.

Argote, L. and Ren, Y. (2012), Transactive memory systems. A microfoundation of dynamic capabilities, *Journal of Management Studies JMS*, Vol. 49 No. 8, pp. 1375–1382.

Austin, J.R. (2003), Transactive memory in organizational groups: The effects of content, consensus, specialization, and accuracy on group performance, *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 866–878.

Baumann, M.R. and Bonner, B.L. (2011), The effects of expected group longevity and expected task difficulty on learning and recall: Implications for the development of transactive memory, *Group Dynamics: Theory, Research, and Practice*, Vol. 15 No. 3, pp. 220–232.

Borgatti, S.R. and Cross, R. (2003), A relational view of information seeking and learning in social networks, *Management Science*, Vol. 49 No. 4, pp. 432–445.

Brandon, D.P. and Hollingshead, A.B. (2004), transactive memory systems in organizations: Matching tasks, expertise, and people, *Organization Science*, Vol. 15 No. 6, pp. 633–644.

Cannon-Bowers, J.A., Salas, E. and Converse, S. (1993), Shared mental models in expert team decision making, in Castellan, N.J. (Ed.), *Individual and Group Decision Making: Current Issues*, L. Erlbaum Associates, Hillsdale, N.J, pp. 221–246.

Edmondson, A. (1999), Psychological safety and learning behavior in work teams, *Administrative Science Quarterly*, Vol. 44 No. 2, pp. 350–383.

Edmondson, A.C. and Roloff, K.S. (2009), Overcoming barriers to collaboration: Psychological safety and learning in diverse teams, in Salas, E., Goodwin, G.F. and Burke, C.S. (Eds.), *Team effectiveness in complex organizations: Cross-disciplinary perspectives and approaches*, The Organizational Frontiers Series, Routledge, New York, pp. 183–208.

Faraj, S. and Sproull, L. (2000), Coordinating expertise in software development teams, *Management Science*, Vol. 46 No. 12, pp. 1554–1568.

Gupta, N. and Hollingshead, A.B. (2010), Differentiated versus integrated transactive memory effectiveness: It depends on the task, *Group Dynamics: Theory, Research, and Practice*, Vol. 14 No. 4, pp. 384–398.

Hollingshead, A.B., Transactive memory systems, in Levine (Ed.) 2010 – *Encyclopedia of Group Processes & Intergroup Relations*, pp. 931–933.

Hollingshead, A.B. (1998a), Communication, learning, and retrieval in transactive memory systems, *Journal of Experimental Social Psychology*, Vol. 34 No. 5, pp. 423–442.

Hollingshead, A.B. (1998b), Retrieval processes in transactive memory systems, *Journal of Personality and Social Psychology*, Vol. 74 No. 3, pp. 659–670.

Hollingshead, A.B. (2001), Cognitive interdependence and convergent expectations in transactive memory, *Journal of Personality & Social Psychology*, Vol. 81 No. 6, pp. 1080–1089.

Ilgen, D.R., Hollenbeck, J.R., Johnson, M. and Jundt, D. (2005), Teams in organizations: From input-process-output models to IMOI models, *Annual Review of Psychology*, Vol. 56 No. 1, pp. 517–543.

Jarvenpaa, S.L. and Keating, E. (2011), Hallowed grounds: The role of cultural values, practices, and institutions in TMS in an offshored complex engineering services project, *IEEE Transactions on Engineering Management*, Vol. 58 No. 4, pp. 786–798.

Kozlowski, S.W.J. and Bell, B.S. (2003), Work groups and teams in organizations, in Borman, W.C. and Weiner, I.B. (Eds.), *Handbook of Psychology:*

Industrial and Organizational Psychology, Vol. 12, Wiley, Hoboken, NJ, pp. 333–375.

Lewis, K. (2003), Measuring transactive memory systems in the field: scale development and validation, *Journal of Applied Psychology*, Vol. 88 No. 4, pp. 587–603.

Lewis, K. and Herndon, B. (2011), Transactive memory systems: Current issues and future research directions, *Organization Science*, Vol. 22 No. 5, pp. 1254–1265.

Lewis, K., Lange, D. and Gillis, L. (2005), Transactive memory systems, learning, and learning transfer, *Organization Science*, Vol. 16 No. 6, pp. 581–598.

Liang, D.W., Moreland, R. and Argote, L. (1995), Group versus individual training and group performance: The mediating role of transactive memory, *Personality and Social Psychology Bulletin*, Vol. 21 No. 4, pp. 384–393.

Mathieu, J., Maynard, M.T., Rapp, T. and Gilson, L. (2008), Team effectiveness 1997-2007: A review of recent advancements and a glimpse into the future, *Journal of Management*, Vol. 34 No. 3, pp. 410–476.

McGrath, J.E., Arrow, H. and Berdahl, J.L. (2000), The study of groups: Past, present, and future, *Personality and Social Psychology Review*, Vol. 4 No. 1, pp. 95–105.

Mohammed, S. and Dumville, B.C. (2001), Team mental models in a team knowledge framework: Expanding theory and measurement across disciplinary boundaries, *Journal of Organizational Behavior*, Vol. 22 No. 2, pp. 89–106.

Mohammed, S., Ferzandi, L. and Hamilton, K. (2010), Metaphor no more: A 15-year review of the team mental model construct, *Journal of Management*, Vol. 36 No. 4, pp. 876–910.

Moreland, R.L. and Myaskovsky, L. (2000), Exploring the performance benefits of group training: Transactive memory or improved communication?, *Organizational Behavior and Human Decision Processes*, Vol. 82, pp. 117–133.

Nonaka, I. (1994), A dynamic theory of organizational knowledge creation, *Organization Science*, Vol. 5 No. 1, pp. 14–37.

Peltokorpi, V. (2008), Transactive memory systems, *Review of General Psychology*, Vol. 12 No. 4, pp. 378–394.

Ren, Y. and Argote, L. (2011), Transactive memory systems 1985-2010: An integrative framework of key dimensions, antecedents, and consequences, *Academy of Management Annals*, Vol. 5, pp. 189–229.

Stasser, G., Taylor, L.A. and Hanna, C. (1989), Information sampling in structured and unstructured discussions of three- and six-person groups, *Journal of Personality and Social Psychology*, Vol. 57 No. 1, pp. 67–78.

Stasser, G., Vaughan, S.I. and Stewart, D.D. (2000), Pooling unshared information: The benefits of knowing how access to information is distributed among group members, *Organizational Behavior and Human Decision Processes*, Vol. 82 No. 1, pp. 102–116.

van Ginkel, W.P. and van Knippenberg, D. (2008), Group information elaboration and group decision making: The role of shared task representations, *Organizational Behavior and Human Decision Processes*, Vol. 105 No. 1, pp. 82–97.

van Knippenberg, D., De Dreu, Carsten K. W. and Homan, A.C. (2004), Work group diversity and group performance: An integrative model and research agenda, *Journal of Applied Psychology*, Vol. 89 No. 6, pp. 1008–1022.

Wegner, D.M. (1987), Transactive memory: A contemporary analysis of the group mind, in Mullen, B. and Goethals, G.R. (Eds.), *Theories of Group Behavior*, Springer series in social psychology, Springer, New York, NY, pp. 185–208.

Wegner, D.M., Giuliano, T. and Hertel, P.T. (1985), Cognitive interdependence in close relationships, in Ickes, W.J. (Ed.), *Compatible and Incompatible Relationships*, Springer series in social psychology, Springer, New York, NY, pp. 253–276.

Wittenbaum, G.M. and Stasser, G. (1996), Management of information in small groups, in Nye, J.L. (Ed.), *What's Social about Social Cognition?: Research on Socially Shared Cognition in Small Groups*, Sage, Thousand Oaks, pp. 3–28.