An ounce of prevention or a pound of cure? Two experiments on in-process interventions in decision-making groups

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ABSTRACT

This paper details two laboratory experiments about the timing of formal interventions in decision-making groups. Study 1 showed that groups receiving in-process interventions pooled more critical information and made better decisions than groups receiving pre-task interventions because in-process interventions prolonged discussions and reduced discussion of member preferences. Study 2 showed a similar pattern of results over a smaller time frame; groups receiving in-process interventions prolonged their discussions, discussed member preferences less, and pooled more critical information than those receiving pre-task interventions because they perceived those interventions as more valuable, which indirectly improved the quality of their decisions. Surprisingly, the specific timing of in-process interventions had no significant effects on information pooling or group decisions in either study. These studies collectively suggest that decision-making groups respond more strongly to interventions designed to cure process problems, rather than prevent them, which has implications for theory on formal interventions, group decision making, and group development.

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1. Introduction

An ounce of prevention is worth a pound of cure.

[– Benjamin Franklin]

Intervening to change the behavior of in-process groups has troubled researchers and practitioners for decades (e.g., Kaplan, 1979; Wageman, Fisher, & Hackman, 2009). Task-performing groups quickly establish norms and work processes that shape their subsequent behavior (Bettenhausen & Murnighan, 1985; Ericksen & Dyer, 2004), making in-process groups resistant to change (e.g., Zellmer-Bruhn, Waller, & Ancona, 2004). Decision-making groups, in particular, often struggle to alter their processes. For instance, Arthur Schlesinger tried, to no avail, to share critical information during discussions with the Kennedy cabinet to avert the Bay of Pigs fiasco (Janis, 1982), and Colin Powell tried to introduce contradictory views into the Bush cabinet's discussion of whether to invade Iraq (Woodward, 2004). Like Schlesinger and Powell, many leaders, managers, and scholars have observed decision-making groups using flawed processes, yet have been unable to alter their established trajectories.

When critical information is unevenly distributed among members, groups often reach a premature consensus, failing to use all the information that members possess (e.g., Stasser & Titus, 1985). In such instances, some information is available to only one group member (unshared information), while other information is available to all group members (shared information). Groups tend to over-emphasize shared information and under-emphasize unshared information (e.g., Lu, Yuan, & McLeod, 2012). Groups also focus too much on preference negotiation—advocating for and negotiating among members' preferences—which crowds out information pooling and processing (Gigone & Hastie, 1993) and reduces the impact of new information on member preferences (Brodbeck, Kerschreiter, Mojzisch, & Schulz-Hardt, 2007). Consequently, groups make suboptimal decisions at a disturbingly high rate when the best choice is not immediately evident to individual members (known as "hidden profiles"; e.g., Stasser and Titus (1985); for a review, see Lu et al., 2012). Although these problems are most pronounced when members are unfamiliar with one another (Gruenfeld, Mannix, Williams, & Neale, 1996), groups rarely correct faulty processes on their own; dysfunctional processes can persist even when groups make many decisions over time (Gigone & Hastie, 1993; Greitemeyer, Schulz-Hardt, Brodbeck, & Frey, 2006).

To prevent such problems, scholars have tested many types of formal interventions, or "instructions given to groups for members

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to follow as they work" (Okhuysen, 2001, p. 795). Larson, Foster-Fishman, and Keys (1994), for example, randomly assigned half of their groups to receive training on group decision making before beginning their work. The training consisted of instructions to discuss task strategy, advice on how to avoid common group decision-making pitfalls, and a video of exemplary group process. Although this training prompted groups to discuss more critical information, it did not lead to higher-quality decisions; groups continued to make decisions consistent with their pre-discussion preferences. Other simple pre-task interventions, such as instructions to share information systematically (Henry, 1995), set an agenda (Mennecke, 1997), or advocate for each decision option in turn (Greitemeyer et al., 2006), have also improved information processing, but not always decision quality (e.g., Stasser, Taylor, & Hanna, 1989; Van Swol & Ludutsky, 2007).

Although there has been a great deal of research on *what* to do to help decision-making groups, there has been almost no research on *when* to do it. This is surprising because scholars of team coaching argue that the timing of an intervention strongly influences its effectiveness (e.g., Hackman & Wageman, 2005; Woolley, 1998). Implicitly, most researchers have adopted Benjamin Franklin's wisdom (cf., Woolley, 1998) that pre-task interventions, focusing on preventing process problems from emerging, are more worthy of research than in-process interventions focused on curing these problems. Building on research on group decision making, group development, and formal interventions, I hypothesize and find the reverse in two laboratory experiments: in-process interventions evoke larger process and outcome changes than pre-task interventions. Because simple interventions appear to be as effective as complex ones (Okhuysen, 2001), I focus on direct instructions to share all available information, which have stimulated information pooling in previous studies (e.g., Henry, 1995; Okhuysen & Eisenhardt, 2002) and can be easily used at any time before or during discussion.

2. Theory and hypotheses

2.1. In-process vs. pre-task interventions in group decision processes

In-process interventions are more likely than pre-task interventions to alter group decision processes for two reasons: (1) they interrupt premature consensus and extend discussions and (2) they capitalize on increased group readiness for intervention once discussion is underway. Fig. 1 summarizes the theoretical model and hypotheses, which are described in detail below. The bold text depicts a general model of intervention timing in groups, and italics specify the manifestations of those categories in group decision making.

2.1.1. In-process interventions as productive interruptions: the role of preference negotiation and discussion length

To their detriment, many decision-making groups use preference-driven approaches to discussion (e.g., Stasser & Birchmeier, 2003), which leads them to focus on preference negotiation and push for early consensus. At the extreme, group discussions are little more than quick votes; members strive for agreement without exploring the information underlying their competing preferences (Gigone & Hastie, 1993, 1997). In these circumstances, in-process interventions can serve two functions. First, they should reduce preference negotiation by interrupting premature consensus and encouraging members to adopt an information-driven approach to discussion (e.g., Stasser & Birchmeier, 2003). When groups recognize the importance of processing information for high-quality decisions, they go beyond quick votes and discuss information more thoroughly (van Ginkel

& van Knippenberg, 2008). Second, in-process interventions can extend discussions by shifting members' attention away from their interactions and prompt them to reconsider their process and emerging consensus. These longer discussions allow groups to pool more unshared information (Parks & Cowlin, 1995) and increase their likelihood of making high-quality decisions (Lu et al., 2012; Mesmer-Magnus & DeChurch, 2009).

2.1.2. Group readiness for intervention

Task-performing groups are theorized to change over time in their "readiness for intervention," defined as, "the degree to which the issues to be addressed are among those naturally on team members' minds … [and] members are not at that time preoccupied with more pressing or compelling matters" (Hackman & Wageman, 2005, p. 275). Three factors explain why groups should be more ready for in-process interventions than pre-task ones. First, members should better understand and remember the content of interventions in process than pre-task because they have fewer competing demands on their attention. Before discussion begins, group members focus on their individual information (Tindale & Sheffey, 2002) and worry about how their personal preferences mesh with other members' (Loyd, Wang, Phillips, & Lount, 2013) and, in newly formed groups, how other members will perceive them (Gruenfeld et al., 1996). This leaves group members with fewer cognitive resources to devote to conducting their discussion. Once discussion begins, however, the discussion process becomes more salient and, as other members' preferences are revealed, concerns about preference fit should fade. Further, because in-process interventions interrupt discussion, they should easily attract members' attention. Thus, members are more likely to understand and remember in-process interventions than pre-task interventions.

Second, groups should view in-process interventions as more valuable than pre-task interventions. Members are most likely to see interventions as valuable when they align with their current attentional focus and concerns (Hackman & Wageman, 2005). Construal level theory (e.g., Trope & Liberman, 2010) helps explain why groups should perceive more value in in-process than pre-task interventions. Construal level theory predicts that more temporally distant targets will be viewed more abstractly, while more temporally proximate objects will be viewed more concretely (Eyal, Liberman, Trope, & Walther, 2004). Abstract construals (high-level construals) are linked to questions of "why," while concrete construals (low-level construals) are linked to questions of "how" (Trope & Liberman, 2010). Formal interventions instructing groups about their processes are fundamentally questions of "how" and should be better aligned with more concrete, low-level construals. Thus, before work on a given decision has begun, members should view discussion more abstractly because it is more temporally distant. However, once discussion has begun, it is more temporally proximate, and the group and task become more concrete, increasing members' focus on how to conduct their discussion. Further, groups tend to vary over time in their focus on task and relational issues (i.e., Bales & Strodtbeck, 1951; Tuckman, 1965). Like other kinds of groups, decision-making groups tend to focus on relational issues, such as building trust and affinity, earlier in discussion (Fisher, 1970), while discussing and resolving points of contention later (Jehn & Mannix, 2001; Lim & Murnighan, 1994). Groups should see in-process interventions as aligned with their lower-level construals and focus on the task, and thus see more value in them than in pre-task interventions.

Third, group readiness may be associated with the degree to which interventions increase members' experience of process accountability – individuals' perceptions that they need to explain or account for the way in which they work (Lerner & Tetlock, 1999). Process accountability enhances information processing