

Leading for Creative Synthesis: A Process-based Model for Creative Leadership

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Organizations rely on groups and teams to come up with new, breakthrough ideas. This is particularly evident in the creative industry sectors like product design, filmmaking, TV, and music where groups of professionals work together to come up with creative art and music, consumer products, policy recommendations, research projects and a variety of other innovative outputs (Elsbach and Flynn 2013; Elsbach and Kramer 2003; Harvey and Kou, 2013; Hargadon and Bechky 2006; Long-Lingo and O'Mahony 2010; Sutton and Hargadon 1996). Those groups display distinct characteristics that mean the process of developing new ideas faces a variety of challenges. Creative groups often work on relatively short term tasks, group members are highly skilled experts with unique abilities and knowledge to contribute to the project, and they have to work in a highly interdependent fashion despite their novel tasks evolving and emerging over time. As a result of the nature of this work, creative groups face a variety of coordination challenges (Harrison and Rouse, 2014). Yet, perhaps because of the importance of creative professionals to producing breakthrough new ideas and the critical need for them to have freedom in the creative process, researchers have often studied these people as if they are autonomous (e.g., Reiter-Palmon et al., 2008; Shalley, 1991).

Research has begun to unpick the processes through which creative professionals can work together (Bechky and Hargadon, 2006; Harvey, 2014; Harrison and Rouse, 2015), building an understanding of how creativity is embedded within a social context (Amabile, 1996; Csikzentmihaly, 1999; Drazin, Glynn, and Kazanjian, 1999; Ford, 1996; Hennessey, 2004). However, we know relatively less about how leaders can facilitate that process (Mainemelis et al., 2016). One reason for the disconnection between research on creative processes and leadership may be that we assume that leaders will constrain a creative process

that is expected to be free-flowing, chaotic, and iterative. Leaders of creative teams have been advised to minimize power and status differences (Galinsky, Magee, Gruenfeld, Whitson and Liljenquist, 2008), so that all members of the group can bring their unique and diverse cognitive, social and environmental resources. However, evidence increasingly suggests that creativity also benefits from constraint (Binyamin and Carmeli, 2010; Gilson, Mathieu, Shalley, and Ruddy, 2005; Goldenberg, Mazursky, and Solomon, 1999). Leaders may therefore play a vital role in setting and enforcing boundaries on the collective creative process.

In this chapter, we build on a process-based view of collective creativity to suggest one set of leader behaviours that can facilitate creativity. Specifically, we extend one process for collective creativity – the process of creative synthesis (Harvey, 2014) – to the domain of leadership to develop a model of leading for creative synthesis. Creative synthesis is a dialectic process in which group members integrate their diverse inputs to develop a shared understanding of a task that guides future idea generation and enables the group to recognize highly creative ideas when they arise. We suggest that leaders can play a critical role in guiding creative synthesis. Mainemelis et al (2016) have suggested that leading for creativity can be conceptualized in three ways – facilitating employees' (or group members') creativity, materializing the leader's vision, and integrating heterogeneous contributions. Our model draws on all three conceptualizations to describe how leaders can shape and help materialize a vision by drawing out and then enabling integration of group members' diverse inputs.

An overview of the process of creative synthesis

The idea generation paradigm views breakthrough ideas as resulting from a combination of diverse input (Staw, 2009). It assumes that creative products triumph when leaders can include more diverse individuals with different background and experiences (Muir and Hida, 2004; Watson, Kumar, and Michaelson, 1993). To produce creative output,

existing research builds on the assumption that the more varied input is collected from diverse group members, the better the creative output will be.

Introducing diverse perspective into the creative process, however, is costly. It is difficult for group members to appreciate, understand and use one another's diverse knowledge and ideas (Srikanth, Harvey, and Peterson, 2016). As a result, groups with diverse perspectives can struggle to develop integrated creative products (Harvey, 2013). Studies that have examined the use of different domain knowledge also indicate that diverse perspectives can be harmful for groups, as they increase the amount of time and effort needed time to reach a consensus (Edmondson and Nembhard, 2009; Harvey, Currall, and Hammer, 2017), require additional political effort to negotiate across domain or knowledge boundaries (Carlile, 2004), reveal conflicting interests (Carlile, 2002; Jarvenpaa and Majchrzak, 2008), and may ultimately cause status challenges, blame, and dysfunctional interpersonal dynamics (Faraj and Sproull, 2000; Srikanth et al., 2016). Therefore, understanding the process through which divergent perspectives are combined is critical for understanding collective creativity.

Harvey (2014) proposed a dialectic process for integrating diverse group resources into breakthrough creative output in groups. In the process of creative synthesis, group members integrate their individual ideas, information, and perspectives into a shared understanding that draws uniquely on those individual inputs to enable group members to commonly interpret their task or problem. The theory is that the integrated understanding can guide collective idea generating efforts to facilitate the development of radically new ideas. As specific ideas develop, they also help to reveal problems and inconsistencies with the shared understanding that prompts the group to continue evolving how they think about the task or problem, so that the shared understanding developed by the group is dynamic over time.

Synthesis unfolds as groups iterate between three process facilitators. To develop shared understanding, groups: a) enact ideas by making them concrete (for example, through sketches, drawings, prototypes, or conversations about implementation); b) focus their collective attention on joint creative products; and c) build on the similarities or overlaps within their diverse perspectives. Underlying that process are the resources available to the group – the composition of group members’ knowledge; their idea generation ability; and the supportive environment of the group (Amabile, Conti, Coon, Lazenby, and Herron 1996; Woodman, Sawyer and Griffin, 1993) – and the external feedback that the group receives (e.g., Harrison and Rouse, 2015) about their ideas, which helps their ideas and shared understanding to develop and evolve.

Although the creative synthesis model lays out a process for groups to follow, creative synthesis is still likely to be challenging for groups who are left to manage the process on their own. Left to their own devices, groups tend to focus on their differences rather than their similarities (van Knippenberg and Schippers, 2007); they tend to divide things up rather than integrate (Heath and Staudenmayer, 2000); and they tend to go off on tangents rather than focusing their attention (Jackson and Poole, 1993). Leadership can therefore be critical for overcoming those issues. Indeed, prior literature often recommends relying on leaders to engage in creative synthesis themselves by collecting ideas and perspectives from organizational members, integrating them, and using them to set the creative direction of the organization (Lewis et al. 2002; Mainemelis et al., 2016).

In this chapter, we propose a different solution. We suggest that leaders can direct and facilitate processes that will enable groups to engage in the process of creative synthesis. We elaborate this model below.

A model of leading through creative synthesis

We extend the model of creative synthesis by suggesting that leaders can facilitate that process in three ways. First, leaders can help groups to engage in each of the three process facilitators of creative synthesis. Second, leaders can ensure groups have the appropriate resources to form productive inputs into that process. Third, leaders can help groups to obtain and productively use external feedback. We summarize our model of leading for synthesis in Figure 1.

[Insert Figure 1 about here]

Helping groups to engage in the process facilitators: Leader behaviours

To help groups achieve creative synthesis, leaders should facilitate the process of integrating perspectives into collective output. This is perhaps the most important way that our model departs from prior work. Whereas research has traditionally emphasized the importance of creating a supportive environment, such as establishing a climate for creativity (Eisenbeiss, van Knippenberg and Boerner, 2008; Somech and Drach-Zahavy, 2013) or building psychological safety (Edmondson, 1999), our model highlights how leaders should aim to direct the creative process. We therefore offer a more project-based approach that focuses on what leaders can do in the moment during interactions between group members. To that end, we offer a set of leader behaviours that corresponds to the process facilitators in the creative synthesis model.

Inciting action for enacting ideas. We suggest that a first set of leader behaviours involves inciting action. Groups follow a variety of styles in their early development, often beginning with planning activities (Marks et al., 2001; Gersick, 1988). However, the creative synthesis model suggests that groups should begin instead by discussing ideas in detail, making them concrete, and realizing them in some physical form like drawings, sketches, or powerpoint documents. Those physical artefacts are likely to be basic and provisional; yet, they can help groups to reveal and build collective knowledge, communicate more easily, and

generating positive affect. For instance, Harvey and Kou (2013) found that one path for collective creativity was to generate and discuss a small number of ideas in concrete detail at the beginning of a group interaction. They suggested that doing so helped groups to establish a problem framework and evaluation criteria that could be used to consider subsequent ideas.

Leaders can help groups to enact ideas in two ways. The first is to directly begin to enact ideas themselves through physical objects like drawings, prototypes, or performances (e.g., role plays). Leaders can initiate those physical artefacts themselves. For instance, collecting pictures to develop design mood boards or opening role playing conversations. Doing so can help group members begin to visualize output and set a group norm for enacting or physically representing ideas.

However, getting group members involved in enacting ideas themselves is also critical; otherwise, the group may simply rely on the leader to enact ideas and limit their own engagement in the creative process. Therefore, a second way leaders can help groups to enact ideas is to incite action, so that group members themselves begin to move ideas towards physical representation. This could occur by promoting conversations around specific ideas or objects, asking for visualizations, or requesting performances like presentations of ideas. Alternatively, however, a variety of contextual factors can also promote action in a way likely to lead groups to enact ideas without direct intervention. In particular, leaders can influence group creativity by providing appropriate physical spaces to enable the creative process. For instance, one study found that having group members move around while generating new ideas increased information elaboration and reduced territoriality over ideas (Knight and Baer, 2014). Thus, to the extent that leaders can provide non-sedentary work spaces, they may help groups to enact ideas. Other work has associated workspaces that can act as physical representations of ideas themselves with creativity (e.g., Hargadon and Sutton, 1996; Stigliani and Ravasi, 2012). Being able to pin things on walls or reconfigure the work space

allows creative groups to move around in the process of making connections between ideas, visualize and externalize their thoughts, and also remember ideas that may otherwise be lost. For leaders, these contextual factors are more than simple fixes that can be easily instituted, however. They require leaders to both establish stimulating physical spaces, and build a culture in which creators feel comfortable and free to move around and play with ideas. Leaders can also go a step beyond this by providing resources to begin implementing ideas early in the creative process. Idea implementation can then act as an indispensable part of idea generation (Škerlavaj et al. 2014).

Directing collective attention. A second set of leader behaviours centers on directing collective attention towards the group's shared understanding or dominant paradigm. Focusing collective attention helps group members to cognitively engage with and develop new ideas, facilitates interaction, and can help to create psychological meaning in new ideas. The advice to focus collective attention appears to run counter to the traditional idea generating approach of diverging in many directions (e.g., Paulus, 2002). What we propose is a more focused path for diverging (e.g., Cropley, 2006). Leaders are critical for facilitating that focus.

Leaders can facilitate collective attention by directing group member's attention towards collective products. During idea generation, this amounts to controlling the divergent processes of group members. We propose two ways that leaders may facilitate collective attention during idea generation. The first way is to frame ideas and cues from the group discussion to draw attention to those things that may be most engaging for the group, helping to create and sustain attention. People tend to pay more creative attention to opportunities than to threats, so framing information and tasks in terms of opportunities can help to direct members' collective attention. For instance, when leaders classify strategic issues as opportunities, it encourages subordinates to think freely, resulting in a more creative

outcomes (Naidoo, 2016). People also tend to notice and attend to novel stimuli (Wu and Huberman, 2008). However, people can also overlook novel ideas that are generated by others, particularly if those ideas do not fit with their own understanding of the problem, evaluation criteria, or information that is relevant for the task (Stasser and Titus, 1985; Harvey, 2013). Therefore, the leader can highlight unique ideas or contributions that have not been previously discussed by the group. Research suggests that even straightforward, explicit instructions are enough to improve creative problem solving (Redmond et al., 1993; Reiter-Palmon et al., 1998), so simple direction are likely to shift collective attention.

A second way that leaders can promote collective attention is by creating a new framework that integrates multiple goals, so that the group focuses on those ideas that fit within their shared framework. Leaders can use the conflicting goals between group members to restrict how issues are framed (Butler and Scherer, 1997; Stokes, 1999). Evidence found in a study by Mumford, Baughman, Threlfall, Supinski, and Costanza (1996), using undergraduate student samples in creative problem solving tasks, found that people who focus on factual information and ignore irrelevant data produce higher quality, and more original solutions on the creative tasks. That focusing on relevant factual data serves as the benchmark to identify alternative perspectives. In other words, by creating a new framework, group members may become more adept at identifying and using alternative concepts, and leading to better collective focus and more original solutions (Baughman and Mumford, 1995).

Finally, a third way that leaders can direct collective attention during idea evaluation is by creating an environment that encourages shared emotion and protects the group from distraction (Metiu and Rothbard, 2012). Shared emotion develops through close interaction, routines, and rituals (Collins, 2005). Shared emotion can be enhanced by, for instance, sharing and celebrating successes or by working together to overcome problems. Leaders can

therefore manage shared emotion by creating rituals or imposing challenges that provide opportunities for groups to pull together. When groups share experiences, it can focus their attention internally to the group task.

Identifying overlaps for building on similarities. A final set of leader behaviours involves helping group members to identify overlaps between their divergent perspectives and ideas. According to the creative synthesis model, building on similarities is the beginning of synthesis; groups develop those ideas they are commonly attracted to as they integrate ideas. Building on similarities facilitates creativity because similarities form the foundation for new connections, ease group interactions, and provide opportunities for group members to become affectively attracted or attached to ideas.

Leaders can help groups to build on members' similarities by establishing clear goals that can be assessed with transparent evaluation standards. Transparent evaluation criteria make it easier for group members to know how to plug their own ideas and perspectives into the collective task (Faraj and Xiao, 2006; Harvey and Mueller, 2018). Restricting the problem framework in this way has been linked to more creative solutions, because it channels group members' divergent inputs. The existence of multiple and conflicting goals places a restriction on how a problem can be framed and the type of solutions that are appropriate, as multiple goals need to be integrated and satisfied (Butler and Scherer, 1997; Stokes, 1999). The need to integrate multiple goals and take into account the restrictions that are placed because of conflicting goals may result in a more complex and innovative problem construction, leading to higher quality and more original solutions.

Alternatively, leaders can help groups to establish the common framework themselves. Encouraging group members to discuss their different perspectives to identify similarities is critical for initiating a dialectic process. For ambiguous creative ideas, this task is non-trivial – on creative tasks, it is unclear how to judge what is a good idea and defining

idea quality requires input from multiple stakeholders (Long-Lingo and O'Mahony, 2010). Leaders can provide that judgement, but without explicitly deciding on evaluation standards for the group. For instance, leaders can be attuned to similarities in group members' ideas and opinions, so that they can direct the group towards those overlaps. To be effective at this, leaders may need a mix of both broad and deep technical competence in the group task. Leaders need broad enough experience so that they can identify important contributions from a range of perspectives and see overlaps between group members' diverse ideas. Yet, they may also need sufficiently deep technical competence for group members' to view their direction as legitimate (Kacperczyk and Younkin, 2017).

Leaders can also help group members to identify similarities themselves by encouraging group members to take on the perspectives of other group members (Hoever and van Knippenberg, 2012) and to construct multiple different problem frames (Redmond et al., 1993; Reiter-Palmon et al., 1998). They can also prompt group members to open up their thinking by giving individual members a variety of assignments, increasing the diversity within each person, which facilitates cross-domain understanding (Bunderson and Sutcliffe, 2002; Reiter-Palmon et al 1998). Finally, leaders can help groups to identify similarities by encouraging group members to search for other's unique and unshared information, which may provide the basis for making novel connections (Stasser and Birchmeier, 2003).

Finally, helping groups to identify overlaps and similarities may involve excluding some group members at different points in the creative process if their perspective is preventing integration between other group members. For instance, Long-Lingo and O'Mahony (2010) found that excluding people at particular points of the process was critical for synthesizing diverse inputs. For the creative synthesis process, these exclusions serve an additional purpose. If a member of the group has been excluded at one stage, their perspective can be brought back in after a temporary synthesis is achieved, so that they

trigger a new dialectic process aimed at integrating their perspective with the rest of the group. That can help the group's synthesized understanding to remain dynamic.

Marshalling resources

Our model is consistent with prior research that focuses on how leaders compile collective resources to support creativity. To lead for synthesis, leaders must also establish a positive interpersonal environment in which group members feel motivated to contribute and comfortable drawing on one another's contributions (Amabile et al., 1996) and compile a group of people whose individual creative thinking skills can contribute to the group (Amabile, 1988; Taggar, 2002).

Of particular importance to the model of leading for synthesis is composing the group for creativity. This is a tricky leadership task. Variety between group members in terms of the perspectives and knowledge triggers the creative synthesis process by producing conflict and dissent, and prevents groups from reaching consensus prematurely (Harvey, 2014). Therefore, diversity in group composition is critical. Yet at the same time, synthesis is not possible if group members' knowledge structures are too distant from one another or incompatible (Cronin and Weingart, 2007). Therefore, getting the right mix of diverse group members, with an underlying thread of common interest through which to connect those diverse perspectives, is a fundamental function of leadership in the creative synthesis model.

A further critical resource for groups engaged in this process is time. Searching for similarities and integrating ideas takes a significant amount of cognitive effort and engagement with other group members. Therefore, leading for creative synthesis requires leaders to manage their time in two ways – leaders need to give the group adequate time to engage in the creative process as well as ensure that group members spend enough of that time working together to help build shared understanding.

Feedback

Finally, the creative synthesis model relies on feedback from the external environment to fuel new conflicts that help groups to renew their shared understandings continuously over time. Since leaders are the group's most critical link to the external environment, facilitating external feedback is an important facet of leading for synthesis. Leaders can act as brokers (Lingo and O'Mahony, 2010) or boundary spanners (Marrone, 2010) to connect groups to external parties. In particular, we propose that leaders can use their status and influence to find opportunities for the group to present emerging ideas to a variety of stakeholder audiences. Prior research has found that a leader's centrality within her network of peers is associated with higher group creativity (Venkatramin, Richter, and Clark, 2014). Recent research further suggests that in obtaining external feedback, a critical task for leaders is to establish the appropriate social frame for interaction to take place (Fisher et al., 2017).

How might leaders achieve these behaviours?

Some evidence suggests that leadership itself benefits from a dialectic process (Kearney et al, 2009; Kazanjian et al., 1999; Smith and Tushman, 2005). Leaders may need to embody different ends of a spectrum to successfully engage in leading for synthesis – they need to both encourage conflict and divergence and bring group members together; to help groups enact ideas and to build new ways of understanding problems; and to develop an internally cohesive problem framework while continuously exposing that framework to external feedback. Leading creative teams may therefore require a combination of different leadership styles. For example, inspiring members to generate novel ideas and challenging existing paradigms may require transformational leadership style. Listening to members' ideas, helping members when they need aid, and creating a positive atmosphere for all group members may require a servant leadership style.

We suggest that one avenue to achieve the balance of skills necessary for leading for synthesis is through shared leadership. In shared leadership, leadership functions can be

distributed among team members (Gibb, 1954; Pearce and Conger, 2002). With shared leadership, different leadership styles and different leadership behaviours can occur simultaneously or sequentially. That means that leaders can engage in different ends of the spectrum as necessary; but also that in doing so, they can iterate back and forth between those ends in a way that promotes synthesis at the leadership level. Sharing leadership requires the team to commit to the same goal, trust and support each other (Carson et al., 2007). That also suggests that shared leadership could help build shared understanding by helping to find similarities between group members. Shifting roles may also drive leaders to stand in each other's shoes to understand situations, prompting more perspective taking and helping them to see connections between diverse inputs.

Conclusion

Leading for creativity may be unlike other forms of leadership. It requires leaders to both encourage group members to diverge and contribute their unique perspectives and ideas, and to gently bring group members together to move their ideas forward in a common collective direction. In this chapter, we have set out a process model of leading for creative synthesis and some associated leader behaviours to facilitate that process.

Our model reiterates some aspects of leadership that have been highlighted in prior research. For instance, we suggest that leading for creative synthesis involves providing groups with resources of sufficient time and a positive group environment and establishing clear and transparent goals. We also elevate and elaborate the importance of some aspects of leadership. For example, our model emphasizes the careful management of group composition for both diversity and overlap, and engaging feedback from external audiences. These are both fundamental to creative synthesis, and so prioritized over environment and goals in our model. Finally, our model introduces some new leadership behaviours. Those

include inciting action, encouraging shared emotion, and carefully excluding group members at different points of the creative process.

From our perspective, leadership may be seen more as a process of continuously managing uncertainty and ambiguity (Long-Lingo and O'Mahony, 2010) by allowing group members to diverge but also helping them to converge periodically. Rather than emphasizing how leaders can create an environment where new ideas arise or a context where new ideas are resourced and implemented, our model focuses on the way that leaders can help others to integrate and synthesize ideas as they engage in a messier middle process that takes them between idea generation and idea selection.

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Figure 1: Leading for creative synthesis

