

Leading for Creativity and Innovation: A Review of the Current Evidence

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Creativity and innovation can be critical drivers of an organisation's performance (Gong, Zhou & Chang, 2013; Hashi & Stojcic, 2013), and creativity remains a capacity that cannot *yet* be automated (Amabile, 2020). As organizations increasingly shift to automation, a trend accelerated by the COVID-19 pandemic (Romei, 2020), it will become more important that the creative potential of employees is developed and supported within organisations. In many respects, leaders are key drivers of organisational behaviour. For example, they are instrumental in setting strategy (O'Reilly, Caldwell, Chatman, Lapid & Self, 2010), initiating and implementing change (Battilana, Gilmartin, Sengul, Pache, & Alexander, 2010), or driving culture (Liden, Wayne, Liao, & Meuser, 2014). At lower levels, they are critical in motivating their team members (Zhang & Bartol, 2010), giving structure to the work (Gottfredson & Aguinis, 2017), and creating a positive team climate (Rego et al., 2017).

In this light, leaders also have an important role to play in the creativity and innovation that occurs in organisations. Leadership of creativity and innovation is different to leading "standard" performance (Mumford, Scott, Gaddis, & Strange, 2002; Rosing, Frese & Bausch, 2011). Real world cases highlight the impact that the leader of an innovative effort can have on its success or failure. Consider Professor Sarah Gilbert, who led the team that developed the Oxford/AstraZeneca vaccine. She has been recognised for her confident steadfastness, efforts to marshal resources for her team's work, and humility in the process (Neville, 2020; RSA, 2021). In stark contrast is the hubris and deception wrapped in a "radical innovation" mystique from Elizabeth Holmes, the disgraced CEO of medical technology company Theranos, whose manipulative and unethical behaviour undermined any potential for innovation (Carreyrou, 2018). In this State-of-the-Art Review, I will review the latest research on leading for creativity and innovation, make suggestions for leaders on fostering creativity and innovation, and identify gaps in our knowledge of this area.

Background

Creativity is defined as the development of ideas that are both novel and useful, while innovation is the implementation of those ideas (Anderson, Potocnik, & Zhou, 2014). The likelihood that someone will engage in creativity and innovation at work is influenced by a number of factors. There are a variety of individual level characteristics, such as knowledge, personality, or skills, that might predict whether someone will be creative (Zwick, Frosch, Hoisl, & Harhoff, 2017). However, having workers with these key capacities is often not enough. There are contextual factors, such as the psychological safety within the team (Hu, Erdogan, Jiang, Bauer, & Liu, 2018), or bureaucratic practices (Hirst, van Knippenberg, Chen & Sacramento, 2011), that will affect whether those individual propensities are enhanced or diminished (Anderson, et al., 2014). One of the key contextual factors that can enhance or diminish the likelihood of creativity and innovation occurring is the leadership that the individual or team is exposed to.

The influence that leaders have on creativity and innovation can take many forms, but can be generally direct (e.g., setting goals for creativity) or indirect (e.g., role modelling it themselves) (Hunter & Cushenbery, 2011). There is an extensive body of research demonstrating a range of ways that leaders influence creativity and innovation – whether it is creating innovation-friendly conditions in the team (Boies, Fiset, & Gill, 2015), defining the creative problems for followers (Redmond, Mumford, & Teach, 1993), managing the creative and innovative process (Waples & Friedrich, 2011), championing the team's ideas within the organisation (Vessey, Barrett, Mumford, Johnson, & Litwiller, 2014), or even participating in the process themselves (Mainemelis, Kark, & Epitropaki, 2015). Not all influence is positive, however. Negative leader behaviours such as abusive supervision (Liu, Liao, & Loi, 2012) and unethical behaviours (Peng, Wang, & Chen, 2018), have been shown to reduce creativity and innovation in followers.

In the following section I will review the state of the art in this field of research. Much of this work is structured around specific leadership theories or models, such as Transformational Leadership, Leader-Member Exchange Theory, or Empowering Leadership. I will frame the summary around these areas as it will facilitate searches for additional information, since academic discussions around these topics will use that terminology. However, as has been acknowledged by Lee, Legood, Hughes, Tian, Newman and Knight (2020) and Hughes, Lee, Tian, Newman and Legood (2018), there is a great deal of overlap in these areas of work with regard to the leader behaviours they examine and the recommendations they make for practice. Thus, I will end the section with a list of actions leaders can take that have been shown to foster creativity and innovation. Following that, I will highlight some emerging trends in the field as well as key gaps in the research that I hope scholars of leadership and creativity/innovation will address. To be a "State of the Art" review I have limited it to empirical work published in the last ten years (2010-2020) and focused on work in the leading organisational psychology, organisational behaviour, general management, leadership, and creativity and innovation focused journals.

Evidence

By far the most studied leadership style with regard to creativity and innovation is Transformational Leadership. Transformational leadership involves four sets of behaviours – idealised influence, inspirational motivation, intellectual stimulation, and

individualised consideration (Boies, et al., 2015). Transformational leadership shows a positive relationship with employee creativity (Wang, Oh, Courtright, & Colbert, 2011). Although many studies evaluate transformation leadership as a single construct (e.g., Garcia-Morales, Jimenez-Barrionuevo, & Gutierrez-Gutierrez, 2012), recent work has sought to examine the specific parts of transformational leadership that influence follower creativity. Work by Boies, et al. (2015) found evidence that intellectual stimulation, or when the leader challenges followers to think more critically, is related to follower creativity. Sheehan, Garavan, and Morley (2020) found evidence that the dimensions of idealised influence and inspirational motivation played a role by facilitating team knowledge sharing. These dimensions include behaviours such as motivating followers to look beyond themselves, developing their confidence, and articulating a clear and compelling vision.

Following transformational leadership, the second most studied leadership theory is Leader-Member-Exchange (LMX) theory which focuses on the relationship between the leader and follower. LMX states that, through a series of “tests”, leaders and followers establish a trusting relationship and leaders form relationships of varying quality with their different followers. With regard to creativity and innovation, the prevailing conclusion is that high LMX relationships, i.e. relationships between followers and leaders that are characterised by support and trust, are positively related to creativity (Tierney, 2015). A number of mechanisms have been found, including that a high LMX relationship often means employees feel more empowered (Pan, Sun, & Chow, 2012), more respected (Mascareno, Rietzschel, & Wisse, 2020), have greater self-efficacy (Liao, Liu & Loi, 2010), and engage in more information sharing (Khazanchi & Masterson, 2011). Research by Olsson, Hemlin, and Pousette (2012) however, shows that the effects of the different components of LMX on follower creativity can be highly dependent on the context, and other work suggests that LMX has a stronger relationship to creativity than to innovation (Carnevale et al., 2017; Mascareno et al., 2020).

Empowering leadership is the third most studied leadership style with regard to creativity and innovation. As with LMX and Transformational leadership, there is typically a positive relationship between this set of leadership actions and creative outcomes. Empowering leadership includes the leader involving followers in decision making, divesting power to them, and giving them autonomy (Zhang & Bartol, 2010). Zhang and Bartol (2010) found that empowering leadership positively effects creativity through its impact on psychological empowerment – when employees feel that work has meaning, that they are competent in performing their tasks, that there is freedom to choose how and what to work on, and the belief that their actions have a direct effect on outcomes. Zhang and Zhou (2014) found a key mechanism was that empowering leadership fostered greater creative self-efficacy in followers, or the belief that they had the capacity to be creative.

In the last decade, several newer models of leadership have been studied for potential effects on creativity and innovation – moral forms of leadership, ambidextrous leadership, entrepreneurial leadership, and shared leadership. The first of these, Moral Leadership, is a collection of leadership styles that Lee et al (2020) grouped together due to their general moral underpinnings. These include Ethical Leadership (Tu, Lu, Choi & Guo, 2019), Servant Leadership (Yoshida, Sendjaya, Hirst, & Cooper, 2014), Authentic Leadership (Rego, Sousa, Marques, & Cunha, 2012), and Leader Humility (Rego, et al., 2017). Key themes across the findings in these areas is that leaders who promote a positive and ethical climate, have a clear moral code, encourage transparency, and put others first are more likely to foster creativity and innovation (Lee et al., 2020; Rego, et al., 2012; Tu et al., 2019; Yoshida, et al., 2014).

Entrepreneurial leadership is defined as “leadership that creates visionary scenarios that are used to assemble and mobilize a “supporting cast” of participants who become committed by the vision to the discovery and exploitation of strategic value creation” (Gupta, MacMillan, & Surie., 2004, pp 2004) or involves leading or mobilizing others “toward the co-creation and exploitation of opportunities” (Lingo, 2020; pp 963). Entrepreneurial leadership can foster creativity and innovation by being brokers in the process, for instance by shaping discussions, assembling key actors, and developing the creative discussions (Lingo, 2020). Other research by Newman, Tse, Schwarz, & Nielsen (2018) suggests that the positive effect is due to entrepreneurial leaders’ role modelling creativity and innovation themselves.

Shared leadership is the process by which multiple individuals in the team engage in the influence process, or team members mutually lead each other (Wang, Waldman & Zhang, 2014). This model of leadership offers an important distinction from the models previously discussed where the focus was on a single focal leader. While the study of shared leadership began nearly two decades ago (Pearce & Conger, 2003), the studies of shared leadership and creativity have emerged more in the last ten years. What evidence does exist indicates that it is positively related with creativity and innovation (Ali, Wang, & Johnson, 2020; Hoch, 2013) and may affect creativity by creating a sense of meaningful work (Liang, van Knippenberg, & Gu, 2021), and enhancing individuals’ creative self-efficacy (He, Hao, Huang, Long, Hiller, & Li, 2020). Wang, et al.’s (2014) meta-analysis on shared leadership also showed that it was more beneficial for team performance when the team was working on a complex task – one that involved more interdependency, knowledge sharing, and creativity.

An interesting area of research that has developed in the last 10 years is on how a leader’s position in their network and the characteristics of their network might shape their capacity for leading innovation. Research by Venkataramani, Richter, and Clarke (2014) showed that the connections of an employee’s immediate leaders predicted their radical creativity and proposed this was a function of their “integrator” role within the team as well as connecting the team to external information sources.

Taking these different bodies of research together, we can distil some common themes in the findings and make recommendations for leading for creativity and innovation. This is not an exhaustive list, but based on the predominant findings reviewed above.

1. Set a compelling vision or goal for creativity and innovation
2. Motivate followers through intellectual stimulation or challenging work
3. Grant them autonomy over their work
4. Build a trusting and supportive relationship with followers
5. Support and reward them for creative attempts (not just creative outcomes)
6. Provide time and marshal resources for creative activities
7. Give them voice; encourage participation
8. Establish and facilitate a psychologically safe climate in the team
9. Encourage information sharing within the team
10. Role model transparency, authenticity, and humility
11. Be an information hub in your network – transmit and integrate knowledge within the team, and transport ideas in and out of team boundaries
12. Role model your own creativity, innovation, or being entrepreneurial

Emerging Trends

A first, and quite important, emerging trend is the consideration of creative or innovative leadership as an entity unto itself, rather than a context to apply more general leadership models. An excellent review and synthesis of the research by Mainemelis, Kark and Epitropaki (2015) proposed that there are three key ways in which we can think about creative leadership: Directing, Integrating and Facilitating. Directing involves being the key driver of the creative effort – it is your creative vision and followers serve to fulfil that vision. Facilitating is opposite to this in that the key driver is the creative vision of the followers. The leader provides support and the broader conditions under which the followers' creativity will flourish. Finally, Integrators synthesise both the leader and the followers' creative ideas. The authors then map the behaviours studied through the various models outlined earlier (e.g., transformational leadership, LMX) onto these different types. This paper provides an important contribution because it synthesizes a wide-ranging literature.

Another important trend is an increasing focus on negative forms of leadership. Much of this work has been on extreme forms of negative behaviours, such as abusive supervision (Liu, et al., 2012), despotic leadership (Naseer, Raja, Syed, Donia, & Darr, 2016), leader bullying (Jiang, Gu, & Tang, 2017), and unethical leader behaviours (Peng, et al., 2018). The pattern across these areas is clear – leadership that harms followers or creates conditions in which they feel unsafe, insecure, or worry about the impact of their work, will decrease creativity and innovation. For instance, a study on self-serving leadership found that this form of unethical leadership decreased team creativity due to its negative effect on the psychological safety of the team as well as an increase in knowledge hiding (Peng et al., 2018). Jiang, et al. (2017) found that leader bullying affected follower creativity by harming follower's creative self-efficacy. As this area of research develops, it will be important to look at less extreme forms of negativity that followers are more likely to experience, such as micromanaging or poor emotion regulation in leaders.

Research Gaps

The first research gap is the need to examine what qualities of leaders, such as their knowledge, skills, abilities, or other characteristics that might be related to their leadership of creativity and innovation (Huang, Krasikova, & Liu, 2016). Understanding the key antecedents for leading for innovation would help with the selection or development of those who will be tasked with leading the creativity and innovation of others. For instance, a study by Castro, Gomes, & de Sousa found a positive relationship between a leader's emotional intelligence and follower creativity. Huang et al. (2016) found a leader's own creative self-efficacy was positively related to whether they encouraged their followers to be creative, and ultimately their followers' creative behaviours. We could take this further by examining more potential antecedents as well as the relative importance of each. For instance, which individual characteristics are the strongest predictors of successful innovation leadership?

Another research gap, and one that is true of leadership research more broadly, is a need to move away from leadership theories built around WEIRD (western, educated, industrial, rich, and democratic) populations (Hiller, Sin, Ponnappalli, & Ozgen, 2019). There is growing research on populations outside of the WEIRD domain, but most still use theories developed in WEIRD contexts (e.g., Gilmore, Hu, Wei, Tetrick, & Zaccaro, 2013; Pan, et al., 2012) which may not be appropriate in other domains. A recent study by Li, Zhao, and Begley (2015), examined transformational leadership and employee

creativity in China but adapted the dimensions of transformational leadership to be more appropriate for the Chinese context. They found that moral modelling and individualised consideration were related to employee creativity. After conducting interviews with over 100 of the top executives in India, Cappelli, Singh, Singh, & Useem (2015) discuss how leadership perspectives in India may offer different models of leadership than those developed in western cultures, particularly the United States. One difference they note is an emphasis on creative value propositions, or a focus on “inexpensive but high-value business models” (pp 10). The field must expand to consider not just applying our existing models in different national and cultural contexts, but to also developing theories and measures rooted in them.

Along similar lines, more research is needed on the context that the creative work is being done in – the industry, the type of task, organizational conditions, and the needs of the individual or team. Montag, Maertz, and Baer (2012) discuss how the predictors of creative performance might vary with regard to whether the creative performance was expected versus unexpected. Similarly, the type of leadership needed to encourage creativity in an environment where it is not a core task may be different to a context in which creativity is essential to the job (Vessey, et al., 2014). Similarly, the leadership behaviours that are most effective for one stage of the creative and innovative process may be different to those that are most effective at another stage (Hughes et al., 2018). Rosing et al. (2011) take a step in this direction by evaluating how leaders may be ambidextrous, or use both explorative or exploitative behaviours as necessary at a given stage in the innovation process. However, there is still much that could be examined, particularly for other stages of the creative process. For instance, what behaviours facilitate opportunity identification, idea generation, idea evaluation, or implementation? In addition, there is minimal understanding on how leading for creativity and innovation may work differently in a remote work environment, something hastened by the COVID-19 pandemic.

Finally, the leadership behaviours that might be most effective may also differ by the level of leadership – whether it is leading a small team, a department, or an organization. While many have proposed this as something to consider (Friedrich, Mumford, Vessey, Beeler & Eubanks, 2010), or have looked at existing results across levels (Anderson, et al., 2014; Hughes, et al., 2018), there is little empirical work examining differences in the effectiveness of specific leader behaviours across levels. For instance, is a leader’s own creativity more important when they are working directly with those engaged in the creativity? Is transformational leadership more effective at higher levels of leadership? In addition, there has been an over-emphasis on leader behaviours that initiate motivation for creativity and innovation, while largely ignoring that individuals also need the skills and knowledge to be creative (Hughes et al., 2018). How can leaders prepare their followers for creative actions through skill and knowledge development?

Conclusion

In this SOTA review, I have briefly summarised some key trends in the last ten years of research on leading for creativity and innovation. The findings across different domains of leadership research often overlap, so I have distilled some key ‘take aways’ that may help leaders improve their capacity for creativity and innovation. Given the importance of employee creativity, organisational leaders may also consider this work in selecting or developing leaders in their organisations if they have the goal of increasing their firm’s innovative performance. As the work of *human* resources shifts further to more creative and knowledge-based work, and other forms of work become increasingly automated

(Pistrul, 2018), it will be even more important that leaders are able to foster and manage creativity in their teams and organisations. This trend has only been hastened by the COVID-19 pandemic (Romei, 2020), which has also highlighted the importance of leading people, creatively, through uncertain conditions.

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About the Author



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Dr. Tamara Friedrich is an Associate Professor of Entrepreneurship and Innovation at Warwick Business School. Her primary research interests fall into the broad categories of creativity and leadership, however much of her recent research falls into the intersection of these two areas. For instance, she has studied how organizational leaders may initiate, support, and sustain innovative efforts through hiring, performance management, and creating a climate for creativity. She has also conducted research on leadership in a collective context and how leadership is influenced by the social environment around them. Her work has appeared in several books and journals, including *The Leadership Quarterly*, *Creativity Research Journal*, and *Human Resource Management Review*.

She is a member of the Innovation Caucus which aims to provide evidence-based support to policy makers and practitioners in the UK. She has worked on several research grants with different funding agencies including the NIH, US Army Research Institute and the US Department of Defense. She has given invited talks on creativity and leadership to local schools and business groups such as the City Womens Network and the Leamington Business Forum, and organisations such as Optum UK and the Canadian Imperial Bank of Commerce.

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