"We Are All One Family":

The Positive Effect of the Family Metaphor on Intra-Team Helping Behaviors

"Families stick together no matter what." – Probst, 2012

As stated by Probst, family members should stick together in good times and also in bad times. Consistent with this notion, in the current research, we examine whether the family metaphor may guide team members to act as "family members," that is, in a greater caring and helpful manner towards each other, and to do so, even in the event of a team relationship conflict, which is known to be especially toxic and detrimental to team functioning and outcomes (see De Dreu & Weingart, 2003; De Wit, Greer, & Jehn, 2012, for meta-analyses).

As proposed in the linguistic theory of metaphor (Lakoff, 1993; Lakoff & Johnson, 1980), metaphors are more than mere linguistic expressions. Rather, they enable us to better understand, and provide meaning to abstract concepts, by "importing" concrete domains from the physical world. Research suggests that metaphors act as a source of cognitive priming, which brings forth semantic, behavioral, and affective responses (Landau, Meier, & Keefer, 2010) that are characteristic of the source domain (Gibson & Zellmer-Bruhn, 2001). As such, metaphors are central to our understanding of experience and to the way we act upon that understanding. Previous work has documented the substantial impact that metaphors can have (e.g., Cleary & Packard, 1992; Jackson, Landau, & Gelfand, 2016; Morgan, 1986; Oberlechner & Mayer-Schonberger, 2002).

In this research, we explore the role of the family metaphor in teams, which have become a fundamental unit in modern organizations (e.g., Hills, 2007; Kozlowski & Bell, 2003), and

particularly in team conflicts, which are prevalent among team members and consequential in terms of team processes and outcomes (e.g., De Wit et al., 2012).

Two studies supported our theorizing that a family metaphor may promote intra-team helping behaviors. Study 1 (N = 85) , a field correlational study conducted among students working in teams on their final project, revealed that the more students viewed their team as "a family," the more intra-team helping behaviors they reported (independent of the negative impact of team relationship conflict).

In study 2 (N = 248), a controlled laboratory experiment, we manipulated team relationship conflict (with vs. without relationship conflict) as well as company's family metaphor (familial vs. non-familial metaphor), and measured actual intra-team helping during a simulated team task. Results replicated the positive impact of the family metaphor on helping behaviors, which was apparent both in the absence and in the presence of team relationship conflict. This positive effect was mediated through an increase in interpersonal-relationship values (including supportiveness and team orientation, O'Reilly, Chatman, & Caldwell, 1991) leading to greater attachment to the metaphor.

Theoretically, the current research integrates three disparate research streams: the linguistic theory of metaphor, the organizational culture literature, and the OB literature. Building on the OCP (O'Reilly et al., 1991), we explored the organizational culture values associated with the family metaphor in teams, as well as the role of the family metaphor in promoting intra-team helping behaviors (independent of the negative impact of team relationship conflict).

Our findings also have practical implications for both Family Businesses (*FB*s) and non-FBs. The FB literature suggests that FBs as a whole are more conflict-prone than non-FBs

because FBs often deal with challenges involving encumbered familial relationships, which are potential causes of conflict (see McKee, Madden, Kellermanns, & Eddleston, 2014 for a review). Since team relationship conflicts are inevitable and likely to be common in FBs, illuminating on the conditions that may facilitate cooperative interactions despite such conflicts is important, and can provide FB managers with insights that are more attainable than to simply avoid such conflicts. Our findings suggest that presenting or highlighting the family metaphor or inducing a familial climate is beneficial in promoting pro-social behaviors, even in face of relationship conflicts, and thus should be encouraged in both FBs and non-FBs.

Given the increased reliance on teams and team work in contemporary work organizations (e.g., Kozlowski & Bell, 2003), we believe that promoting intra-team helping behaviors (especially in times of conflicts) represents an important avenue for future empirical research. In particular, the implication of our research is substantial for practitioners because it provides an avenue for organizations to manage team relationship conflicts and to promote intra-team helping – namely, by employing family metaphors. Indeed, organizations often use metaphors to influence organizational related behaviors and increase effectiveness (e.g., Cleary & Packard, 1992). Here we offer the family metaphor as one that may promote intra-team cooperation and helping, even under circumstances of team relationship conflicts, which typically undermine team functioning and outcomes.

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FAMILY FIRMS AS EMOTIONAL ORGANIZATIONS: MEASURING BOUNDED EMOTIONALITY AMONG NONFAMILY EMPLOYEES

Over the last 30 years, family ownership has been studied as a unique organizational phenomenon, and multiple differences have been identified between family- and nonfamily-owned firms. In particular, family and nonfamily firms differ along dimensions such as firm performance (e.g., Anderson & Reeb, 2003), risk taking (Gomez-Mejia, Haynes, Nunez-Nickel, Jacobson, & Moyano-Fuentes, 2007), and even pollution levels (Berrone, Cruz, & Gomez-Mejia, 2010). These differences have primarily been explained at the ownership level, and have been attributed to various factors associated with the owners' emotions [e.g., firm owners' subjective valuation of the emotional returns and costs associated with their organizations; (Astrachan & Jaskiewicz, 2008; Zellweger & Astrachan, 2008); or the manner in which emotions influence founders' cognition and behavior; (Baron, 2008)]. The proposed relationships between firm owners' emotions and organizational outcomes converge to the current leading theory in research on family-owned firms, namely, socioemotional wealth (SEW) theory (Gomez-Mejia, Cruz, Berrone, & De-Castro, 2011). SEW is defined as "the stock of affect-related value invested in the firm", or, in other words, as the noneconomic utilities that individuals receive from their businesses. In effect, SEW theory suggests that family-owned firms seek to maximize these types of utilities, rather than to maximize purely financial returns (Gomez-Mejia, et al., 2011).

In spite of the dominance of SEW theory, current studies are unable to explain how and under which conditions the affective elements (i.e., feelings and emotions) that are considered to be so important in family firms influence the formation of SEW, thereby shaping organization members' perceptions or behavior (Zellweger & Dehlen, 2012). Accordingly, recent calls have been issued to empirically study

emotions in family firms (Morgan & Gomez-Mejia, 2014) and, in particular, to explore how such firms “build a stock of emotion resources”, and how these resources influence organizational outcomes (Shepherd, 2016, p. 152). Recently, scholars have pointed to a need to gain a better understanding of the emotional components characterizing the organizational structures of family firms; to this end, it is necessary to obtain more “fine-grained information” (Miller & Le-Breton-Miller, 2014, p. 718) about the distinct preferences and perceptions of owners, executives, and other important stakeholders. The current study responds to these calls by examining the emotional components of organizing in family firms. Moreover, in contrast to most studies in this vein, it focuses on nonfamily employees of family firms, rather than on family owners.

Our focus on nonfamily employees is motivated by the idea that, in order to study a firm’s "stock of emotion resources" and the influence of these resources on organizational behavior, it is necessary to move beyond the standard equation of ownership → firm outcomes, and to delve into the level of the firm (Huy, 1999). Our focus on the emotional resources typical to the organizing of nonfamily employees of family firms enables us to respond to these challenges.

In our effort to expose emotional experiences typical to nonfamily members of family firms, we draw on the theory of Bounded Emotionality (BE). Over two decades ago, Mumby and Putnam (1992, 1993) put forward the idea that emotion is an inevitable component of organizing, and developed BE as an alternative organizational framework that takes such emotion into account. BE is based on the idea that “nurturance, caring, community, supportiveness, and interrelatedness are fused with individual responsibility to shape organizational experiences" (Mumby & Putnam, 1992, p. 474). BE has been used as a theoretical framework for studying

emotions in organizations and has been suggested as a prism through which to study entrepreneurship (Koskina & Keithley, 2010; Thomas & Wickramasinghe, 2007). In a case study of The Body Shop (a family firm), Martin, Knopoff, and Beckman (1998) described how a BE approach is enacted in an organization.

We present a mixed-method approach consisting of two studies. In the first study, we qualitatively describe emotional components of organizing in family firms, drawing from data obtained from interviews with nonfamily members of such firms. At this stage, we are able to identify three quantifiable emotional characteristics of organizing in family firms, namely, sensitivity to one another, authenticity and empathy. We consider these characteristics to be manifestations of BE. Then, in a second study, we empirically measure these three characteristics among 220 employees of family- and 186 employees of nonfamily firms, with the aim of comparing the two groups of employees. We find that employees working in family firms score higher on all three dimensions compared with employees in nonfamily firms. We further generate a multidimensional construct of BE composed of these three emotional components, and observe that the level of BE is positively associated with the level of family influence on the firm (where "family influence" is operationalized as the percentage of family-member-owners in the top management team; TMT).

This study offers three key contributions towards enhancing the understanding the role of emotions in organizing in family firms. First, by focusing on the firm level rather than on the ownership level, we uncover emotional utilities of nonfamily employees of family firms. Second, we offer a characterization of the emotional organizing that is typical to family firms, where family ownership shapes an emotional work setting. Third, we suggest an empirical measurement of BE.

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Team affect in the different phases of the Design Thinking process

A Sentiment Analysis of Design Thinking Teams in the wild

Abstract
Working in innovation teams means navigating uncertainty. This is often mediated by the methods and phase structure of a particular innovation process. Besides procedural and content-related methods, socio-emotional factors are known to be especially crucial for innovation teams. Design Thinking, a popular idea generation methodology, is said to account for all of these factors. But how exactly process structure and socio-emotional team dynamics are interrelated is yet to be established scientifically. This paper aims to shed light on this relationship by conducting a sentiment analysis via LIWC of the whole process of two Design Thinking teams "in the wild". Our study supports the hypothesis that convergent phases (synthesis, prototype refinement) are especially critical on a socio-emotional scale, reflected in a significantly lower average of words reflecting positive emotions used.

Keywords: Team affect; socio-emotional team dynamics; creativity; innovation processes; Design Thinking; sentiment analysis

1. Introduction & Background

Innovation and creativity are the new imperatives of work, whether in business, politics/policy or social contexts. But how are these imperatives achieved?
According to Anderson, Potonik, & Zhou (2014), "[c]reativity and innovation at work are the process, outcomes, and products of attempts to develop and introduce new and improved ways of doing things." The definition for creative outcomes in the sense of ideas as *novel* and *useful* is well known to the point to be called "standard" (see Runco & Jaeger, 2012), but how can a creative process in the sense of an idea generation process (the first stage of innovation; see Anderson, Potočnik, Bledow, Hulsheger, & Rosing, 2016; Hülsheger, Anderson, & Salgado, 2009; West & Farr, 1990) be defined, measured and eventually optimally shaped?

Sentiment analysis as a way to assess teams in creative processes

Innovation and creativity are strongly connected to risk-taking, on an individual, team and organizational level (Dewett, 2007; Kuczmarski, 1996; Edmondson, Bohmer, & Pisano, 2001), due to the inherent need to navigate uncertainty. To encourage this on a team level in the first place, especially socio-emotional factors, e.g. team cohesion, support for innovation and participative or psychological safety (Edmonson, 1999; West & Anderson, 1996; Hülsheger, Anderson & Salgado, 2009), are relevant. One way of understanding, assessing and improving creative processes is to look at the affective states and processes needed for and

invoked by these (Amabile, Barsade, Mueller, & Staw, 2005; Ting Fong, 2006). Sentiment analysis has been used to dig deeper into the affectional state of individuals through language analysis for years, especially in the realm of marketing (see Qu, Shanahan & Wiebe, 2004). One way to computationally evaluate large amounts of text for sentiment analysis is the Linguistic Inquiry and Word Count (LIWC; Tauscik & Pennebaker, 2010). Its word categories are well validated and can successfully measure positive and negative emotions as well as other psychometric properties, as has been demonstrated in hundreds of studies (ibd.; Pennebaker, Jordan, Boyd & Blackburn, 2015). We use the *affect* categories *posemo*, reflecting positive emotions, and *negemo*, reflecting negative emotions.
Using sentiment analysis for teams though presents a new application not yet deeply fathomed. This is especially interesting as it presents a way to access the actual team process. Process variables have been shown to be more strongly connected to innovation than input variables (Hülsheger et al., 2009).

Design Thinking as a creative methodology combining convergent and divergent thinking

Advancing in a creative process is ultimately connected to alternating between divergent and convergent thinking and acting (Guilford, 1967; Cross 2006). Divergent thinking is an important indicator of overall creative ability (Christensen & Guilford, 1958) and, in various framings, a condicio sine qua non for creativity and innovation processes (e.g. abductive thinking - cf. Dorst, 2015; Endrejat & Kauffeld, 2016; lateral thinking - De Bono, 1967; associative thinking - Mednick, 1962). Convergent thinking, in contrast, is needed to boil down the variety of concepts in order to be able to focus and consolidate the explorative work.
This constant movement between divergent and convergent thinking phases is engrained in and shared by most design process, e.g. in the Design Council Double Diamond (Design Council, 2007) or in the Design Thinking process used at the "d.schools" in Potsdam (HPI School of Design Thinking; Plattner, Meinel & Weinberg, 2009 – see Figure 1) and Stanford (d.school, 2010; see Howard, Culley, & Dekoninck, E., 2008, for an overview of design processes).

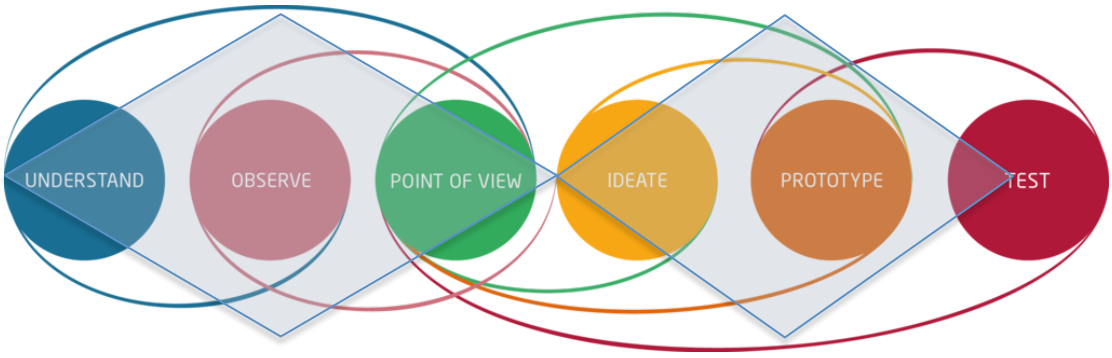

Figure 1: Design Thinking process as used at the HPI School of Design Thinking with overlay to visualize the alternating divergent and convergent phases. Divergent: Understand, Observe, Ideate; convergent: Point of View, Prototype & Test. Adapted from © HPI School of Design Thinking, 2017

We hypothesize that these different thinking modes are connected to different affectional states in the teams, more precisely: that convergent phases, in con-

trast to divergent phases, come along with a higher stress in the team, reflected in a less positive team sentiment.

2. Data set & method

Data set

To investigate this hypothesis, we conducted a study with two teams working on real life Design Thinking projects in the context of the HPI School of Design Thinking "Basic Track". The teams worked on two different projects with real life project partners over the course of six weeks, two full days per week. We recorded video and audio of all in-house project meeting days and managed to capture the most decisive Design Thinking phases happening in a classic team setting. These phases are: first approximation of the challenge ('Understand'), bringing together and synthesizing information gathered in the field ('Synthesis'; 'Point of View' in Figure 1), developing ideas ('Ideation'), and building and refining prototypes ('Prototype'). Both 'Observe' and 'Test', the two Design Thinking phases not included, are happening outside in the field and usually not in a classic meeting or team setting.

Both the 'Understand' and the 'Ideation' phase are divergent phases, i.e. as much data or ideas as possible should be gathered, respectively, while judgement and selection is deferred. 'Synthesis' and 'Prototype', in contrast, are convergent phases, i.e. one to a few insights and ideas need to be selected and will then be used to develop a 'Point of View' or a first prototype (see Figure 1).

The video and audio data was transcribed and segmented into speaker turns. A turn begins when a new speaker starts her utterance and ends when she stops to speak (or is interrupted). This led to a total of 4500 transcribed turns, of which 2932 turns (33203 words) were analyzed using the LIWC2015 categories *posemo* (positive emotions) , *negemo* (negative emotions), *assent* as well as *WC* (word count) and the overall *affect* category as a control. For all categories except *WC* it was averaged over all divergent and convergent turns of both teams, respectively.

3. Results & Discussion

The preliminary results show a clear difference between the average positive emotion articulated in the divergent and the convergent phases for both teams, respectively (see Table 1 & Figure 2). The divergent phases ('Understand' and 'Ideation') are accompanied by more positive emotions than the convergent phases ('Synthesis' and 'Prototype') for the respective team.

	Posemo Team 1	Posemo Team 2
Divergent phases	13.48	10.12
Convergent phases	10.40	7.36

Table 1: Averages for the LIWC2015 *posemo* category over the divergent and convergent phases of Team 1 and Team 2, respectively.

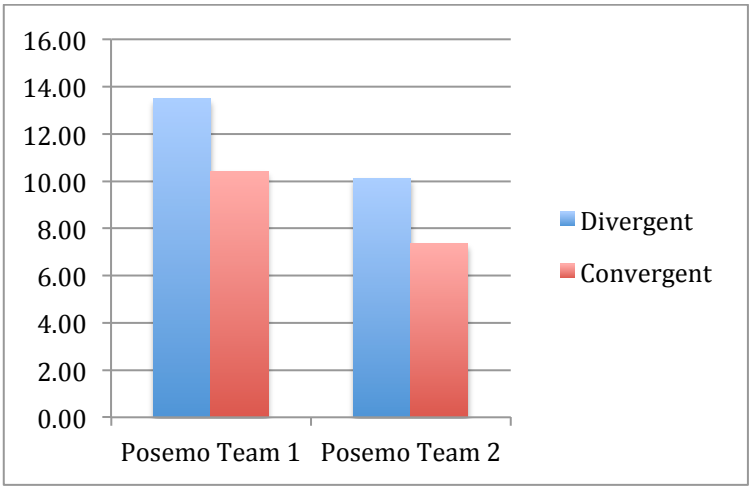

Figure 2: Clustered column chart for the averages of LIWC2015 *posemo* category for Team 1 and Team 2.

Up to now, only two teams could be analyzed, and only limited analysis could be conducted (statistical significance, assent dynamics, etc. not yet evaluated). We are currently collecting more data as well as conduct an in-depth analysis and will include this in the final paper. Also the – here completely omitted – assent analysis will be included.

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The Creative Benefits of Wearing Hearts on Sleeves: Authentic Affect Climate, Surface Acting, and Team Creativity

Organizations rely on teams to generate new and useful ideas (i.e., creativity) that contribute to their growth and success (George, 2007; Shalley, Hitt, & Zhou, 2015). A key tenet of team creativity research is that creative outcomes are more likely when groups have a safe and trusting environment that support members in expressing their honest ideas, opinions, or perspectives (Amabile, Conti, Coon, Lazenby, & Herron, 1996; Gong, Kim, Lee, & Zhu, 2013; Kark & Carmeli, 2009; Kessel, Kratzer, & Schultz, 2012). This is because offering creative ideas that challenge or deviate from existing team processes and knowledge in order to do things in novel ways is socially risky (Amabile, Goldfarb, & Brackfield, 1990; Baer & Brown, 2012; Mueller, Melwani, & Goncalo, 2012; Sutton & Hargadon, 1996). Thus, a prevailing solution to this problem is for teams to encourage and support open communication because "creative ideas are more likely to emerge when people feel liberated to defy convention and state their authentic and unfiltered point of view" (Goncalo, Chatman, Duguid, & Kennedy, 2015: 2).

Despite this acknowledgement that teams need environments in which members can express their *authentic ideas and opinions*, this research is largely silent on another fundamental component of group interaction that may have significant implications for team creative processing: *authentic emotion expression*. That is, members in teams can share more than what they truly think; they can also express how they truly feel. Yet, it is also risky, and perhaps even more so, for team members to express genuine affect—the overarching concept referring to emotions, moods, and feeling states (Barsade & Gibson, 2007; Bartel & Saavedra, 2000). This is because team creative work often involves experiences of emotions that may be less accepted in professional work settings, such as experiences of confusion or doubt when trying to grasp novelty; frustration or anger at the lack of solutions; or extreme enthusiasm with the potential of new breakthroughs (Harrison & Dossinger, in press; Harrison & Rouse, 2014; Lingo & O'Mahony, 2010). Thus, when trying to develop novel and useful ideas, team members may hold back, mask, or avoid sharing their true feelings about each other or the team's work because they succumb to social pressures to manage their emotions and express only those that are socially desirable or accepted by the group (e.g., Sutton and Hargadon, 1996). Moreover, research and case studies indicate that even teams pursuing creativity that desire honest opinions and feedback can differ in their degree of authenticity of emotion expression. For instance, while IDEO

creative teams are encouraged and "nearly required" to manage their feelings during brainstorming in order to express only positive feelings (Sutton & Hargadon, 1996: 709), other teams, such as those at Bridgewater Associates, aim to eliminate emotion censorship and openly promote authentic expression of feelings to identify problems that can lead to improvements and creative insights (Kegan, Lahey, Fleming, & Miller, 2014). These affective dynamics of team creative work and the differences found in how teams approach authenticity in affect expression poses an important research question: Do teams in which members stay true to their authentic affect and "wear their hearts on their sleeves" generate more creative outcomes than teams whose members hold back or avoid sharing their genuine feelings?

Building on emerging theory that suggests groups adopt different climates regarding the appropriateness and support of sharing authentic feelings, we propose that teams with higher levels of *authentic affect climate*—or team members' shared perception of the team environment (e.g., norms, rewards, routines) supporting members in expressing genuine affective states (Grandey, Foo, Groth, & Goodwin, 2012; Parke & Seo, 2017)—enhances team creativity. We argue this effect occurs because authentic affect climate reduces team surface acting—the extent to which team members change their public display of feelings by masking or suppressing what they truly feel internally (Côté, 2005; Grandey, 2003). First, when members are less constrained by the need to express socially desirable feelings, this emotional freedom enables them to fully engage in the work as opposed to spend personal resources on surface acting. Second, because affect has fundamental informational value (Côté, Van Kleef, & Sy, 2013; Niedenthal & Brauer, 2012), we propose that when it is muted or suppressed, it prevents the team from receiving affective information that is critical to feedback and evaluation processes essential to the development of creative outcomes (Harvey and Kou, 2013; S. H. Harrison and Rouse, 2015; S. H. Harrison and Dossinger, in press). Thus, authentic affect climate, by reducing team surface acting, enables important affective information processing that benefits team creativity.

Yet, authentic affect climate may benefit team creativity more for certain types of teams. In particular, cross-functional teams, or those with greater functional variety in which members differ from one another in terms of their functional roles (Bunderson & Sutcliffe, 2002; Harrison & Klein, 2007), are often charged by organizations to deliver creative outcomes because they have the potential to achieve higher levels of creativity when they utilize their diverse knowledge and experience (Lovelace, Shapiro, and Weingart, 2001; Mannucci, in press). At the same time,

however, these teams face heightened communication challenges caused by their functional differences that, unless effectively dealt with, can prevent their elaboration and combination of knowledge to produce creative outcomes (Dougherty, 1992; Harvey, 2013; Leonardi, 2011; Majchrzak, More, & Faraj, 2012). In that context, we propose that teams with greater functional variety benefit more from authentic affect climate reducing team surface acting because members (a) require even greater attention and cognitive resources to engage fully in creative processing and (b) rely on affect as a universal and basic communication medium that helps the group transcend and utilize its diverse knowledge sets (cf., Majchrzak et al., 2012).

We used two independent studies to test our theoretical relationships. In Study 1, we utilized a team experiment in which we manipulated authentic affect climate. Results support the hypothesized effects as team authentic affect climate negatively related to team surface acting (b = -.47 [SE = .12]; $p < .001$), team surface acting negatively related to team creativity (b = -.31 [SE =.13]; $p < .05$), and authentic affect climate had a positive indirect effect on team creativity (estimate = .14 [SE = .07]; 95% CI = [.03, .32]). In Study 2, we used field data from 100 teams in a Global 100 company to replicate the findings in Study 1, increase external validity, and test the moderator hypotheses of team functional variety. Hypotheses were also supported in Study 2 as authentic affect climate negatively related to team surface acting (b = -.33 [SE= .06]; $p < .001$), team surface acting negatively related to team creativity (b = -.18 [SE = .08]; $p < .05$), and authentic affect climate had a positive indirect effect on team creativity via team surface acting (estimate = .06; [SE = .03] 95% CI = [.001, .12]). Further, functional variety moderated the relationship between surface acting and team creativity (b = -1.09 [SE = .54]; $p < .01$) in which surface acting had a stronger negative effect on team creativity at high levels of functional variety (b = -.39 [SE = .12]; $p < .01$) than at low levels of functional variety (b = .03 [SE = .13]; *ns*). Finally, results indicated support that team authentic affect climate enhanced team creativity via team surface acting at high levels of functional variety (b = .13 [SE = .04]; 95% CI = [.05, .22]), but had no indirect effect at low levels of functional variety (b = -.01 [SE = .04]; 95% CI = [-.10, .07]), and the difference between the indirect effect at high versus low levels of team functional variety was significant (estimate = .14 [SE = .06]; 95% CI = [.02, .27]). This research makes several important contributions to knowledge on team creativity, functional diversity, and team affect.

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