

Symposium Proposal:
Motivating Creativity Over Context and Time

Presentation 1. Motivating Creativity Over Time: Learning and Performance
Achievement Goals and Creativity Momentum

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Creativity

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OVERVIEW

Innovation and creativity in the workplace have become increasingly important determinants of organizational success. Considerable research investigated personal and contextual factors that influence creativity outcomes and processes at different levels of analysis. These studies informed key theories (e.g., Amabile, 1988), which have been recently revised to incorporate dynamic, paradoxical and emotional relationships and constructs (Amabile and Pratt, 2016; Anderson et al., 2014).

Inspired by the dynamic componential model of creativity and innovation (Amabile and Prat, 2016), this symposium seeks to advance the body of knowledge on creativity in four important ways. Adopting a process approach to creativity, in the first paper Miron-Spektor and Vashdi introduce the construct of *creativity momentum* – a systematic increase (or decrease) in creativity level over time. Using organizational evaluations of creative ideas generated by manufacturing employees, they show that learning and performance-approach orientations interact to affect the creativity momentum, which predicts the tendency to generate additional ideas. In the second paper, Lazar, Miron-Spektor and Mueller show that individuals are more likely to develop emotional attachment toward ideas that match their cultural ideals. In Western and individualistic cultures people feel greater attachment to novel ideas, whereas in Eastern and collectivistic cultures people develop attachment to practical

ideas. The third paper by Van Dijk, Kark, Matta and Johnson examines the effects of leadership type and regulatory focus on team creativity. Using a product development task, they show that team prevention and promotion focus interact to affect team creativity. Lastly, Morgensztern, Zhong, Erez and Lee report how structural elements promote organizational innovation in China, challenging the assumption that bureaucracy hampers innovation. Together these papers offer new insights to creativity and innovation theory, highlighting its dynamic, multilevel and context-specific nature.

Motivating Creativity Over Time:

Learning and Performance Achievement Goals and Creativity Momentum

The increasing complexity and agility of today's organizational life require employees to both continuously engage in learning and to be creative. Employees behave creatively when they produce novel solutions that are useful to the organization (Amabile & Pratt, 2016), and employees learn when they draw inferences from experience (Argote and Miron-Spektor, 2011). Considerable research examined factors that explain creativity and learning (for reviews see Anderson, Potocnik and Zhou, 2014; Argote and Miron-Spektor, 2011), with few studies showing that successful experience in initiating ideas affect subsequent creativity (Audia and Goncalo, 2007; Bayus 2013; Deichmann and van den Ende, 2014). While informative, these studies provide little insight as to why some employees improve their creativity over time and with more experience, while others do not.

To answer this question, we investigate how learning and performance-approach orientations motivate individuals to improve their creativity over time. A learning orientation represents a focus on mastery and self-improvement, while a performance-approach orientation represents a more general concern with demonstrating ability and trying to do better than others (Dweck & Leggett, 1988). Studies on the effects of these goal orientations on creativity documented inconsistent findings including positive, null, nonlinear or negative effects (e.g., Hirst et al., 2009; Janssen & Van Yperen, 2004; Midgley, Kaplan, & Middleton, 2001; To et al., 2011). We try to reconcile these mixed findings by considering the possibility that individuals can be both learning and performance orientated, and by examining improvement in creativity over time.

Research consistently finds that learning and performance goal orientations are independent goals that individuals can simultaneously pursue (Harackiewicz et al., 2002).

Yet, studies that examined the effect of learning and performance orientations on employee creativity examined their effect independently of one another. Recent findings suggest that pursuing both goals simultaneously contributes to creativity because a learning goal orients individuals to gain new knowledge and develop novel ideas that are not necessarily useful, while a performance goal motivates them to reduce risk and develop feasible solutions that will be valued by the organization (Hirst et al., 2009; Miron-Spektor & Beenen, 2015). Individuals high on both goal orientations, can adaptively change their focus on novelty or usefulness at different stages of the creativity process and can integrate the goals (Harackiewicz et al., 2002). Further, research suggests that balancing learning and performance goal orientations requires experience (Porter et al., 2010), and thus the interactive effect of these goals may be manifested over time. We introduce the construct of *creativity momentum* – a systematic increase (or decrease) in creativity level over time, and suggest that learning oriented employees are more likely to demonstrate a positive creativity momentum, if they also score high on performance orientation. Experiencing a positive creativity momentum increases the likelihood to propose new ideas. By examining creative behavior over time, we address recent calls for process research in creativity (Anderson, et al., 2014).

Participants were 127 employees in 23 divisions of a manufacturing plant that develops sophisticated electro-optic equipment. Our data included three datasets merged together. First, employees reported their learning and performance orientations (VandeWalle, 1997). The second dataset included all the ideas proposed within the years 2007- 2014 (1240 ideas) as part of an innovation program. Through this program each employee could submit a creative idea concerning a product, work processes or procedures through a computerized system. Each idea was evaluated by a panel of 8-10 judges including department managers and expert employees on a 1= “not creative” to 10 = “highly creative” scale. Using these data for each employee we calculated the total sum of proposed ideas and creativity momentum. Based on Chen et al.'s, (2011) each individual creative momentum was calculated as the slope value of the creativity scores across the measurement years drawn from a mixed effects growth model (Bliese and Ployhart, 2002). With this approach, more positive values indicate that over time there is a general increase in creativity scores whereas more negative values indicate that over time there is a general decrease in creativity scores. The final dataset was taken from the above-mentioned innovation program. Data were collected indicating whether the participants had further submitted additional ideas between 2014 and 2016.

Our results based on hierarchical linear modeling (HLM) show that performance approach orientation strengthens the positive effect of learning orientation on both the number of generated ideas and creativity momentum, which in turn predict the tendency to propose additional ideas.

Our results provide initial evidence regarding what is required for people to be more creative over time. More specifically, it seems that a combination of high performance and learning orientation goals are important for continuous improvement in creativity level above and beyond the number of creativity attempts. We draw theoretical implications for both the creativity and motivation literature.

Getting Attached: Emotional Attachment to New Ideas in Different Cultures

Do people feel attachment towards their ideas? If so, what kinds of ideas might people feel more attached to in different cultures? Answering these questions is important because research has shown that when people feel passion and ownership toward their ideas they are more likely to pursue them in face of challenges (Baer & Brown, 2012; Baron, 2008). In this study, we develop a theoretical model of idea attachment, proposing that people feel attached to, value and preserve ideas that match their cultural ideals.

People become attached to targets that help them maintain positive self and social image, as well as to communicate “who they are” to others (Ahuvia, 2005). Emotional attachment is an emotion-laden bond that connects an individual with a specific target (Thomson, Macinnis, & Park, 2005). Research in marketing suggests that emotional attachment increases brand loyalty, the perceived value of a product (Price, Arnould, & Curasi, 2000) and resistance to product change (Jimenez & Voss, 2010). Building on this work, we suggest that individuals are likely to feel emotionally attached to their ideas when they reflect and preserve their self-concept.

Cultures stress different self-aspects (Singelis, 1994; Triandis, 1989), thus inferencing the type of ideas that people may feel attached to. Individualism is a cultural dimension which prioritizes self-reliance, personal interests, and is “antagonistic to community and collective social structure” (Oyserman, Coon, & Kemmelmeier, 2002). Individualistic cultures stress the appreciation of one’s difference from another, and the importance of asserting the self (Markus & Kitayama, 1991). For this reason, theory strongly supports the notion that people in individualistic cultures will value novel over practical ideas they

generate, because novel ideas express the person's own distinctiveness - a trait which is highly desirable in an individualistic culture (Brewer & Chen, 2007). In contrast, collectivistic cultures value solidarity and contribution to the community; they view distinctiveness as disruptive to the broader social order (Markus & Kitayama, 1991). For this reason, theory supports the notion that people in collectivistic cultures will value their practical over novel ideas because purely practical ideas with little novelty have a higher likelihood of resembling solutions that are socially accepted - and so have a higher likelihood of bringing value to the broader group (Erez & Nouri, 2010).

We tested our theory in three studies. In Study 1, 68 MBA students in Israel were asked to develop either a novel or a practical idea for a new business and then reported their emotional attachment toward their idea (Ball & Tasaki, 1992). Results indicate that participants felt more attached to their novel ideas than to their practical ones ($b = 1.59$, $s.e = .31$, $p < .001$). In Study 2, 218 students in Israel and in China performed the same idea generation task, reported their emotional attachment and perceived value of the idea. Results supported a moderated mediation model. Israelis felt more attached to their novel ideas and perceived them as more valuable ($b = .07$, $s.e = .06$, $[0.00, 0.26]$), whereas Chinese felt more attached and therefore assigned higher value to their practical ideas ($b = -.07$, $s.e = .06$, $[-0.26, -0.00]$). In Study 3, we manipulated cultural values by asking 205 bicultural individuals (East Asians from Europe and the US) to reflect on either individualistic or collectivistic self-aspects (Goncalo & Staw, 2006; Hong, Morris, Chiu & Benet-Martinez, 2000) prior to performing an idea generation task. In line with our prediction, in the individualism condition individuals felt more strongly attached to their novel ideas, perceived them as more valuable ($b = .282$, $s.e = 1.69$, $[-.15, 6.97]$) and were less likely to change the idea in response to feedback ($b = -.16$, $s.e = .12$, $[-.50, -.00]$). Interestingly, in the collectivism condition, participants felt equally attached to their novel and practical ideas.

Our work provides a window into how organizations that support innovation might encourage creativity in employees from collectivistic cultures. Rather than training them in idea generation or recognition techniques - helping them build emotional attachment toward their new ideas could be a more fruitful place to start. Managers in the West should also be aware of the implications of emotional attachment, as individuals in those cultures are less receptive to feedback on their novel ideas as compared to their practical ideas.

Collective Aspirations: Collective Regulatory Focus as a Mediator of the Effects of Leadership and Chronic Regulatory Focus on Team Creativity

The scientific interest in team-level motivational processes has raised in the last two decades (Anderson, Potočnik, & Zhou, 2014). Yet, the understanding of the motivational process by which groups become creative and innovative, and especially the interplay between individual and team motivations are incomplete (Chen et al., 2013). In this research we focus on a team-level motivational orientation based on Higgins's regulatory focus theory (Higgins, 1997) – Collective Regulatory Focus (CRF; Faddegon, Scheepers, & Ellemers, 2008; Owens & Hekman, 2016; Rietzschel, 2011; Sacramento, Fay, & West, 2013).

We propose a model suggesting that both leaders' behaviors and team members' regulatory focus contribute to the development of CRF at the team level, and that team's CRF further affects team creativity through the mechanism of team initiative.

We tested our model on 157 undergraduate students from the Faculty of Management in an Israeli University, which were divided into 54 teams of three persons each. During each session, the experimenter played the role of either a transactional leader or a transformational leader, according to detailed scripts (see Benjamin & Flynn, 2006). Participants filled in questionnaires (e.g., chronic-regulatory focus) before the manager came into the room; then the manager introduced himself and his vision. Next the manager asked the participants to develop a prototype of a decor object during a 20-min period and told the participants that the prototype should be novel and useful (Gino, Argote, Miron-Spektor, & Todorova, 2010). Finally, team members were asked to complete additional measures about their team processes (CRF, team initiative). After completing the study, four independent judges rated the creative performance of the teams.

Our model was conceptualized at the group level of analysis and achieved adequate fit with the data: $\chi^2(14) = 18.01$, *ns*; CFI = .94; RMSEA = .07; SRMR = .11. Regarding the antecedents of CRF, we found that both leadership and chronic-regulatory focus affected prevention CRF; but only chronic-regulatory focus (and not leadership) predicted promotion CRF. Regarding outcomes of CRF, we found that prevention CRF (but not promotion CRF) mediated the effect of leadership behavior on team initiative. In addition, both promotion and prevention CRF mediated the relations between team chronic-promotion/prevention foci and team initiative (respectively). We also found support for indirect effects between CRF and creative performance via team initiative. Specifically, promotion CRF increased team

initiative, which increased creativity, whereas, prevention CRF decreased team initiative, which led to decrease in team creativity. Finally, we found an interaction between promotion and prevention CRF, revealing that the negative relation between prevention CRF and team initiative was weaker when promotion CRF was high (vs. low).

This study contributes to the understanding of the ways in which a team-level regulatory focus is formed within work teams by top-down processes, namely, leader's behaviors, as well as bottom-up process, namely, followers' chronic-regulatory focus. To our knowledge, this study is among the first that addressed the role of CRF in the leadership process. By clarifying the antecedents of CRF, this study has important implications for organizations that wish to increase team creativity.

One practical contribution of our findings is that it is more effective for leaders to avoid behaviors that harm creativity, than to adopt behaviors that foster creativity (Kark, Van Dijk, & Vashdi, under review). Leaders could more easily distract their followers' creativity, making them more restrained and guarded, than inspire their followers' creativity. In order to foster team creativity, organizations need to train their managers to reduce transactional behaviors and messages in order to reduce the formation of prevention CRF, which may harm team initiative and creativity. In addition, organizations that want to encourage creativity should consider attracting promotion-focused employees to their working teams, in order to increase the level of shared promotion-focused and create promotion CRF.

The Bureaucracy – Innovation Relations in Chinese Firms

In today's dynamic and global market, innovation has become a key success factor to the sustainable competitive advantage of corporations (Bledow, Frese, Anderson, Erez, & Farr, 2009). The question is whether a Western theory that identifies the structural factors of formalization and centralization as inhibitors of innovation (Gupta & Govindarajan, 2000; Jansen, Van Den Bosch, & Volberda, 2005) is also valid in China. The Chinese culture differs from the Western cultures in its higher levels of power distance, uncertainty avoidance and collectivism (Hofstede & Bond, 1984). These values support the centralized and formalized structure of Chinese organizations. In China, the organizational structure of high centralization and formalization enables top-level managers, who receive new knowledge and information from outside the organization, to communicate it to employees in a formalized, documented way, enabling knowledge utilization and integration. Centralization and formalization have some benefits, such as information-processing efficiency (Sheremata,

2000) and the diffusion of requested practices (Zander & Kogut, 1995). This study aims to test for the effects of centralization and formalization on innovation, through their effects on knowledge integration, which consists of temporal knowledge integration from past-experience to present, functional knowledge integration across different functions, and inter-organizational integration across different organizations.

Participants were 347 R&D managers of 347 technology firms located in Jinagsu province in China, who responded to the research questionnaire, using a 5-point Likert type scales. Measures: *Product innovation*, assessed by a measure of The European Community Innovation Survey. *Centralization and formalization*, each assessed by 4 items based on Hage and Aiken (1967). *Inter-temporal integration*, assessed by 4 items based on Marsh and Stock (2000). Sample item: “Our firm acquires information and know-how about technology developed in prior projects”. *Inter-organizational integration*, assessed by 3 items based on Caloghirou, Hondroyiannis and Vonortas (2003). *Inter-functional integration*, assessed by 3 items, based on De Luca and Atuahene-Gima (2007) and Xueming, Slotegraaf and Xing (2006). *Financial performance*, obtained from objective data.

Using structural equation modeling (SEM), our results demonstrated a positive effect of centralization and formalization on the three types of knowledge integration, which were significantly related to the organization’ level of innovation and its consequent objective performance. The model fit indices ($\chi^2= 8.073$, $df=7$, $p=0.326$; $RMSEA=0.022$; $CFI=0.997$; $LI=0.991$; $NFI=0.980$; $SRMR=0.024$) suggest that this network of relationships fits the data. This study enriches the research knowledge by demonstrating partial support for western theories by replicating the positive effect of knowledge integration on innovation, but it shows that the factors influencing knowledge integration are different in China compared to western cultures. In contrast to the West, the positive effect of formalization and centralization on knowledge integration suggests that the fit between the cultural values and the organizational structure, is crucial for enhancing knowledge integration.

References

- Abrams, D., & Hogg, M. A. 2008. Collective Identity: Group Membership and Self-Conception. *Blackwell Handbook of Social Psychology: Group Processes*, 425–460.
- Ahuvia, A. C. 2005. Beyond the Extended Self: Loved Objects and Consumers' Identity Narratives. *Journal of Consumer Research*, 32(1): 171–184.
- Amabile, T. M. 1988. A Model of Creativity and Innovation in Organizations. *Research in Organizational Behavior*, 10(1): 123–167.
- Amabile, T. M., & Pratt, M. G. 2016. The dynamic componential model of creativity and innovation in organizations: Making progress, making meaning. *Research in Organizational Behavior*.
- Anderson, N., Potonik, K., & Zhou, J. 2014. Innovation and creativity in organizations: A state-of-the-science review, prospective commentary, and guiding framework. *Journal of Management*, 40(5): 1297–1333.
- Argote, L., & Miron-Spektor, E. (2011). Organizational learning: From experience to knowledge. *Organization Science*, 22(5), 1123-1137.
- Audia, P.G., & Goncalo, J.A. (2007). Past success and creativity over time: A study of inventors in the hard disk drive industry. *Management Science*, 53 (1), 1-15.
- Baer, M., & Brown, G. 2012. Blind in one eye: How psychological ownership of ideas affects the types of suggestions people adopt. *Organizational Behavior and Human Decision Processes*, 118(1): 60–71.
- Ball, a. D., & Tasaki, L. H. 1992. The Role and Measurement of Attachment in Consumer Behavior. *Journal of Consumer Psychology*, 1(2): 155–172.
- Baron, R. A. 2008. the Role of Affect in the Entrepreneurial Process. *Academy of Management Review*, 33(2): 328–340.
- Bledow, R., Frese, M., Anderson, N., Erez, M., & Farr, J. 2009. Extending and Refining the Dialectic Perspective on Innovation: There Is Nothing as Practical as a Good Theory; Nothing as Theoretical as a Good Practice. *Industrial & Organizational Psychology*, 2(3): 363–373.
- Bliese, P. D., & Ployhart, R. E. (2002). Growth modeling using random coefficient models: Model building, testing, and illustrations. *Organizational Research Methods*, 5(4), 362-387.
- Brewer, M. B., & Chen, Y.-R. 2007. Where (who) are collectives in collectivism? Toward conceptual clarification of individualism and collectivism. *Psychological Review*, 114(1): 133–51.
- Caloghirou, Y., Hondroyiannis, G., & Vonortas, N. S. (2003). The performance of research partnerships. *Managerial and Decision Economics*, 24(2-3), 85-99.
- Chen, G., R. E. Ployhart, H. C. Thomas, N. Anderson, P. D. Bliese. (2011). The power of momentum: A new model of dynamic relationships between job satisfaction change and turnover intentions. *Academy of Management Journal*, 54(1) 159–181.
- Deichmann, D., J. Van Den Ende. 2014. Rising from failure and learning from success: The role of past experience in radical initiative taking. *Organization Science*, 25(3) 670–690.
- Erez, M., & Nouri, R. 2010. Creativity: the influence of cultural, social, and work contexts. *Management and Organization Review*, 6(3): 351–370.
- Goncalo, J. A., & Staw, B. M. 2006. Individualism-collectivism and group creativity. *Organizational Behavior and Human Decision Processes*, 100(1): 96–109.
- Grant, A. M., & Berry, J. W. 2011. The Necessity of Others is the Mother of Invention: Intrinsic and Prosocial Motivations, Perspective Taking, and Creativity. *Academy of Management Journal*, 54(1): 73–96.

- Gupta, A. K., & Govindarajan, V. (2000). Knowledge Flows Within Multinational Corporations. *Strategic Management Journal*, 21(August 1999), 473–496.
- Harackiewicz J.M., Barron, K.E., Pintrich, P.R., Elliot, A.J., and Tharash, T.M. (2002). Revision of achievement goal theory: Necessary and illuminating. *Journal of Educational Psychology*, 94 (3), 638-645.
- Hirst, G., Knippenberg, D. V., Zhou, J. (2009). A cross-level perspective on employee creativity: Goal orientation, team learning behavior, and individual creativity. *Academy of Management Journal*, 52(2), 280–293.
- Hofstede, G., & Bond, M. H. 1984. Hofstede's Culture Dimensions: An Independent Validation Using Rokeach's Value Survey. *Journal of Cross-Cultural Psychology*.
- Hong, Y. Y., & Mallorie, L. M. 2004. A dynamic constructivist approach to culture: Lessons learned from personality psychology. *Journal of Research in Personality*, 38(1): 59–67.
- Jansen, J. J. P., Van Den Bosch, F. a J., & Volberda, H. W. 2005. Managing potential and realized absorptive capacity: How do organizational antecedents matter? *Academy of Management Journal*, 48(6): 999–1015.
- Janssen, O., N. Van Yperen. 2004. Employee's goal orientation, the quality of leader- member exchange, and the outcomes of job performance and job satisfaction. *Academy of Management Journal*, 47(3) 368–384.
- Jimenez, F. R., & Voss, K. E. 2010. An Alternative Approach to the Measurement of Emotional Attachment. *Psychology & Marketing*, 30(6): 461–469.
- Markus, H. R., & Kitayama, S. 1991. Culture and the Self: Implications for Cognition, Emotion, and Motivation. *Psychological Review*, 98(2): 224–253.
- Miron-Spektor, E., & Beenen, G. 2015. Motivating creativity: The effects of sequential and simultaneous learning and performance achievement goals on product novelty and usefulness. *Organizational Behavior and Human Decision Processes*, 127: 53–65.
- Midgley, C., Kaplan, A., & Middleton, M. (2001). Performance-approach goals: Good for what, for whom, under what circumstances, and at what cost?. *Journal of Educational Psychology*, 93(1), 77.
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. 2002. Rethinking individualism and collectivism: evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, 128(1): 3–72.
- Price, L. L., Arnould, E. J., & Curasi, C. F. 2000. Older Consumers' Disposition of Special Possessions. *Journal of Consumer Research*, 27(2): 179–201.
- Sheremata, W. A. 2000. Centrifugal and centripetal forces in radical new product development under time pressure. *Academy of Management Review*, 25(2): 389–408.
- Thomson, M., Macinnis, D. J., & Park, C. W. 2005. The Ties That Bind: Measuring the Strength of Consumers' Emotional Attachments to Brands. *Journal of Consumer Psychology*, 15(1): 77–91.
- Triandis, H. C. 1989. The Self and Social Behavior in Differing Cultural Contexts. *Psychological Review*, 96(3): 506–520.
- Vandewalle, D. (1997). Development and validation of a work domain goal orientation instrument. *Educational and Psychological Measurement*, 57(6), 995-1015.
- Zander, U., & Kogut, B. 1995. Knowledge and the Speed of the Transfer and Imitation of Organizational Capabilities: An Empirical Test. *Organization Science*.