Construing creativity: The how and why of recognizing creative ideas

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HIGHLIGHTS

- Creativity theory assumes people can recognize creative ideas
- We provide theory and evidence to challenge this assumption
- Three studies show that low level construals deter creative idea recognition
- Low level construals diminish creativity ratings by promoting uncertainty feelings
- Future research should examine antecedents to creative idea recognition

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ABSTRACT

While prior theory proposes that domain knowledge is the main factor that determines creativity assessments, we provide theory and evidence to suggest that situational factors can also alter what people view as creative. Specifically, we test the notion that one's current construal-level can shift what people perceive as creative. We employ three studies manipulating construal in two ways (i.e., with spatial distance and construal level mindset priming) to show that people with low-level and high-level construal orientations differ in creativity assessments of the same idea. We further show that low- and high-level construals do not alter perceptions of ideas low in creativity, and that uncertainty sometimes mediates the relationship between construal level priming and creativity assessments of an examined idea. These findings shed light on why people desire but often reject creativity, and suggest practical solutions to help organizations (e.g., journals, government agencies, venture capitalists) spot creative ideas.

Introduction

Innovation, the process of implementing creative ideas (Amabile, 1988), increasingly involves recognizing creative ideas, rather than generating them. For example, Proctor & Gamble, the consumer products company, developed many successful products (e.g., Olay Regenerist, Swiffer Dusters, the Crest SpinBrush) by spotting creative ideas offered by outsiders —customers, suppliers, and technology partners. In this model of innovation, popularly termed 'crowd-sourcing' or 'open innovation,' the onus on the focal actor is to spot and recognize creative ideas developed by others rather than to generate new ideas personally (Erat & Krishnan, 2012). This approach to innovation is not limited to organizations; it exists in many different contexts. For example, it occurs in academic contexts where journals seek to spot creative scholarly content or where funding agencies, such as governments,

angel investors, and private ventures, strive to recognize and capitalize on the most novel and useful research.

Due to the emergence of internet-based technologies, which have opened a floodgate of ideas, the trend of recognizing externally-generated creative ideas is intensifying (Chesbrough, Vanhaverbeke, & West, 2006). Hence, it is increasingly important to develop an eye for spotting truly useful ideas that also happen to be quite novel, or to become (as Bill Gates once described Steve Jobs) a "natural in terms of intuitive taste" for creative ideas (Isaacson, 2011).

Research can play a critical role by helping to explore how creative ideas are spotted —specifically, by unearthing the antecedents of creative idea recognition. The bulk of creativity literature has examined how creative ideas are generated (for a review see George, 2007 Chap. 9), with relatively less emphasis on how creative ideas are selected (cf, West, 2002). Prior research concerned with creativity assessment has largely assumed that domain knowledge is the primary driver (Simonton, 1999), without considering whether situational factors may also play a role while domain knowledge remains constant. Challenging this previous assumption, we point to one important and widely relevant psychological

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antecedent to creative idea recognition. Specifically, we explore whether a person's current level of construal might shift what he views as creative, and if so, what processes might explain this association.

Creative idea recognition and construal

Construal level theory distinguishes between two forms of mental representation: high-level and low-level construals. High-level construals, which tend to represent distant events, are abstract, schematic representations that capture an item's gist and emphasize goals and end-states. Low-level construals, which are used to capture proximal events, are concrete representations that focus on more supporting and secondary information, including the particular means by which an activity is carried out (Trope & Liberman, 2010). Research has shown that increased psychological distance facilitates solving insight problems (Förster, Friedman, & Liberman, 2004; Jia, Hirt, & Karpen, 2009; Kwang, 2005; Schimmel & Förster, 2008). Presumably, this occurs because higher levels of psychological distance enhance abstract thinking, a factor that has been linked to increased creative cognition (Förster et al., 2004). Furthermore, exposure to novel, unfamiliar stimuli tends to activate global, abstract processing (Förster, 2009; Förster, Liberman, & Shapira, 2009); a broader, global perspective seems to prepare one best for understanding novel information (Förster, Marguc, & Gillebaart, 2010).

Given these previously established associations between distance and creative idea generation, and between novelty and global processing, it seems plausible that the tendency to think in abstract ways may also shape people's assessments of creative ideas (see also Berry, 2011). People categorize ideas as "creative" if the ideas are both novel and appropriate to the situation (Amabile, 1982). However, because creative ideas are new – and it is not possible to know with certainty whether any new idea is truly valuable and appropriate (Amabile, 1988; Elsbach & Kramer, 2003) – people may employ cues beyond domain knowledge to determine whether ideas fit the category of being truly creative. In particular, a high-level mindset may make a person more comfortable with creative ideas, because of a fit or match between the person's cognitive orientation and the content under consideration. If distance promotes creative cognition and novelty tends to activate broad processing, then being in an abstract mindset may serve as one cue people use in determining whether highly novel ideas are appropriate. In contrast, given that proximity is associated with relatively non-creative cognition and that familiarity tends to activate narrow processing, being in a concrete mindset may make one increasingly comfortable with familiar ideas, and thereby, provide a cue that the novel idea in question is not appropriate. Intriguingly, such fit may influence creativity judgments themselves, leading people to categorize ideas as relatively more or less creative.

This relative fit between mindset and the novelty of an idea may manifest as feelings of uncertainty regarding the idea under consideration. Recent research (Mueller, Melwani, & Goncalo, 2012) highlights that people have both positive and negative associations with creativity; the negative associations can involve uncertainty about social acceptance when expressing the idea (Diehl & Stroebe, 1987), the idea's value (Amabile, 1988), whether the idea will work (Fleming, 2001), and whether it is feasible (Elsbach & Kramer, 2003). Moreover, this work found that an uncertainty prime heightened people's implicit negative associations with creativity, which in turn, diminished creativity assessments, presumably because people reject or devalue things that contribute to their aversive feelings of uncertainty. People with high-level construal orientations, whose mindsets fit the content under consideration, may be less likely to experience uncertainty about creative ideas relative to people with low-level orientations, which may activate such uncertainty concerns. Indeed, a low-level mindset includes a focus on the 'how' aspects of activities (Liberman & Trope, 1998), which have the potential to highlight more implicit associations with the social, tactical, and logistical uncertainty inherent in any creative idea.

In sum, given that a narrow or more concrete processing orientation presents a mismatch with idea novelty, which may create feelings of uncertainty about whether a creative idea is valuable, lower-level construals may lead to lower assessments of creative ideas than high level construals, which fit well with novel ideas. We explore this prediction across three studies employing different manipulations of construal and ideas of high and low creativity. Across the three studies, our primary hypothesis is that low-level construals (as compared to high-level construals) will lead to lower creativity assessments of ideas that are relatively high in creativity. We also explore the possibility that uncertainty plays a role in this process.

Experiment 1

Method

Participants and design

One hundred and sixty-eight participants (42% males; $M_{age} = 34.5$ years) from Amazon Mechanical Turk were randomly assigned to one of two conditions —high and low levels of psychological distance.

Procedure and materials

Participants were asked to assess an idea. Following prior research, we manipulated construal level via a geographical distance manipulation (see Henderson & Wakslak, 2010), telling participants that the ideas they were about to rate were generated by someone living either "faraway" or "nearby." Fifty-five participants failed a manipulation check, which asked them where the ideas were generated; hence, we dropped the 55 participants from all subsequent analyses, yielding a final sample size of 113.[1] After reading this introduction, participants rated a highly creative idea adapted from prior work (Mueller et al., 2012): a running shoe with nanotechnology that decreases blistering by improving shoe fit. Participants rated the idea using a three item "creativity" scale, indicating the extent to which they thought the idea was "creative," "unique," and "novel and useful" ($\alpha = .81$). Participants also rated uncertainty about the idea using three items: "I am uncertain about this idea," "Success of this idea is assured (reverse coded)," and "I am uncertain whether this idea has potential," $\alpha = .80$, used in prior research (Mueller et al., 2012). After completing the idea assessment, participants rated several items measuring factors that potentially covaried with geographical distance (see Henderson, Fujita, Trope, & Liberman, 2006): 1) how similar is this person to you, 2) how much do you like this person, and 3) how familiar is this person to you. All items used a 7-point scale (1 = not at all, 4 = moderately so, 7 = very much so).

Results and discussion

Table 1 includes all descriptive statistics and Pearson correlation coefficients for all variables used in the study. An independent *t*-test showed that construal level shifted creativity assessments ($t(111) = 2.00, p = .04$, Cohen's d = .37), with participants in the faraway condition rating the idea as more creative ($M = 6.14, SD = .85$) than participants in the nearby condition ($M = 5.82, SD = .85$).[2] This pattern

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[1] Because 2 participants in the sample of 113 did not answer items we used as covariates in the study, their responses were not included in analyses including covariates.

[2] We also examined whether our findings held when employing the full dataset (as opposed to reporting results from the sub-sample that did not fail the manipulation check). For the full data sample, an independent *t*-test showed that construal level shifted creativity assessments ($t(166) = 2.30, p = .02$, Cohen's d = .35), with participants in the faraway condition rating the idea as more creative ($M = 6.03, SD = .82$) than participants in the nearby condition ($M = 5.71, SD = .95$). This pattern remained the same when controlling for similarity to, liking, and familiarity with the hypothetical person generating the idea, $F(1, 146) = 2.48, p = .04, \eta^2_p = .028$. Seventeen participants in the total sample of 168 did not answer items we included as covariates and so are not included in these analyses.