Can Busyness Influence Consumer Creativity?
Luke Nowlan, University of Miami, USA
Juliano Laran, University of Miami, USA

We examine the relationship between busyness, or the perception of having many tasks to complete, and creativity. We propose that busyness makes it more difficult to inhibit interfering thoughts when working on a task, which ultimately enhances creativity. Four studies support this framework and rule out alternative explanations.

[to cite]:

[url]:
http://www.acrwebsite.org/volumes/1023973/volumes/v45/NA-45

[copyright notice]:
This work is copyrighted by The Association for Consumer Research. For permission to copy or use this work in whole or in part, please contact the Copyright Clearance Center at http://www.copyright.com/.
Creativity Triggers: The Influence of Novel Antecedents on Creative Cognition

Chairs: Anoosha Izadi, University of Houston, USA
Lidan Xu, University of Illinois at Urbana-Champaign, USA

Paper #1: Physically Short, Mentally Flexible? Exploring the Relationship between Stature and Creativity
Lei Jia, Ohio State University, USA
Xiaojing Yang, University of Wisconsin-Milwaukee, USA
Xiaoyan Deng, Ohio State University, USA

Paper #2: Can Busyness Influence Consumer Creativity?
Luke Nowlan, University of Miami, USA
Juliano Laran, University of Miami, USA

Paper #3: The Way the Wind Blows: How Direction of Airflow Influences Creativity
Anoosha Izadi, University of Houston, USA
Melanie Rudd, University of Houston, USA
Vanessa M. Patrick, University of Houston, USA

Paper #4: Can Conspicuous Consumption Experience Affect Consumer Creativity?
Lidan Xu, University of Illinois at Urbana-Champaign, USA
Ravi Mehta, University of Illinois at Urbana-Champaign, USA
Jennifer Argo, University of Alberta, Canada

SESSION OVERVIEW

Creativity plays an important role in our consumer environments. Being creative not only helps companies generate original and novel business ideas, but also facilitates consumers to solve everyday problems (Burroughs and Mick 2004). Given the importance of creativity, it is not surprising that researchers have explored various factors and cognitive processes that drive creativity, such as cognitive factors (Dahl and Moreau 2002) and motivational factors (Burroughs et al. 2008). This session seeks to provide new insights into creative cognition and explores various novel antecedents from multifaceted perspectives, including physical and mental states, environmental factors and individual consumption experiences that provide important insights that are likely to be of interest to a wide range of audiences.

The previous research has thus far explored various antecedents of creativity that can be broadly categorized into person-based and situational based factors. From a person-based angle, however, research focusing on the potential relationship between consumers’ physical and mental states and their creativity is relatively scarce. Two papers in this session intend to fill this gap. The first paper in this session highlights how a person’s physical state of being short (or their feelings of being short)—something commonly perceived as a disadvantage in modern society—can lead to positive consequences like enhanced creativity (Jia, Yang, and Deng). The second paper investigates a certain mental state—busyness—and demonstrates how the perception of having many tasks to do can promote creativity (Nowlan and Laran). Together, these two papers show the substantial role that mental and physical states can play in influencing creativity and encourage a deeper understanding of how such states impact consumer behavior.

From a situational-based point of view, the potential role of the physical environment and individual consumption experience in creativity research has received little attention. Thus, the other two papers in this session shed light on these less investigated factors and how and why they might influence creativity. The third paper in this session examines an environmental factor, airflow, and shows that the direction of airflow (facing the source of the airflow vs. facing away from the source of the airflow) can influence creativity by enhancing people’s psychological energy (Izadi, Rudd, and Patrick). Finally, the fourth paper explores the role of individual consumption experience and shows that engaging in a conspicuous consumption experience enhances creative performance (Xu, Mehta and Argo). Together, these two papers extend our knowledge of how situational factors—both those external (airflow) and internal to the consumer (conspicuous consumption)—impact consumer creativity.

Taken together, the four papers (all in advanced stages) in this session provide multifaceted insights into the creativity literature by introducing novel antecedents. As the session integrates diverse research to highlight theoretical developments in this important area, it should be of interest not only to researchers who study creativity, but it is expected to appeal to a broad audience, including those interested in consumer status and consumption habits, physio-environmental factors, time perception, mindsets, and coping mechanisms.

Physically Short, Mentally Flexible? Exploring the Relationship between Stature and Creativity

EXTENDED ABSTRACT

A “height premium” seems to exist in the western society which suggests that taller (vs. shorter) people tend to receive more favorable evaluations and enjoy more social and professional advantages (Judge and Cable 2004). Indeed, research indicates that height is a desirable physical asset and functions as a proxy of power, status, and respect (Agerström 2014). For example, taller individuals are judged as being more attractive, intelligent, and competent (Swami et al. 2008); they are also more likely to be elected as leaders, earn more money, and become more successful in career (Gawley, Perks, and Curtis 2009; Higham and Carment 1992; Jackson and Ervin 1992; Judge and Cable 2004). Being short, however, could be considered stigmatizing and short individuals are perceived as lower in professional status and less competent in social domains (Andreoletti, Zebrowitz, and Lachman 2001).

We investigate how consumers’ stature influences their problem-solving capabilities and specifically how a short stature may contribute to creativity. Consumers’ physical height can shape their cognition and behavior and one crucial consequence of being short is that short individuals believe that they are more susceptible to external constraints than are taller individuals. That is, short individuals believe that to achieve success, they need to work harder and circumvent more obstacles relative to taller people (Andreoletti, Zebrowitz, and Lachman 2001). Although more disadvantaged compared to their taller counterparts, short individuals may play smart to prevent such a disadvantageous position from holding them back in competition. For example, they can strategically present themselves to counteract the stereotypes associated with being short (Agerström 2014).

Past research suggests that resources for disadvantaged individuals are scarce and opportunities fleeting, and coping with such an adverse social environment improves the executive functioning of shifting (Mittal et al. 2015). Shifting involves switching between different tasks or mindsets flexibly and efficiently, and is a critical component of cognitive flexibility, which underlies abilities such as creativity (Diamond 2013). Extending these previous findings to examining the relationship between physical height and creativity, we propose that insomuch as short individuals perceive themselves to be in a disadvantageous position, they may cope with the situation (e.g., resource deprivation) by honing their shifting skills and being more...
flexible and creative. Specifically, we propose that both a chronic state of being physically short and a situationally induced state of feeling short can promote creativity. We tested our hypothesis in three experiments.

In the first experiment, we assessed creativity using remote associates test (RAT), a well-established measure of creativity. One hundred ninety-one participants took part in the experiment. They were told that they would work on a word association task, in which they were presented with three words (e.g., paint, doll, cat) and asked to think of a fourth word that associated with all these words (house). They worked on ten RAT questions and the number of correct solutions served as our dependent variable (RAT scores). Participants’ height was collected at the end of the experiment, among other demographic variables. Analysis showed a significant negative correlation between participants’ self-reported height and their RAT scores ($r = -.69, p < .001$), suggesting that shorter participants solved more RAT questions than did taller participants.

In the second experiment, we measured participants’ creativity using a scuffed shoe task (Burroughs and Mick 2004). One hundred seventy-eight participants took part in this experiment. They were presented with a scenario in which they found out that their shoes were badly scuffed right before an important social occasion, and they needed to generate as many creative solutions as they can think of to this situation. Their solutions were assessed using a five-point creativity scale (1 = not at all creative; 5 = very creative) and the creativity scores served as our dependent variable. After this thinking exercise, participants’ height was collected, among other demographic variables. Analysis again showed a significant negative correlation between participants’ self-reported height and their creativity scores ($r = -.15, p < .05$), suggesting that shorter participants generated more creative solutions than did taller participants.

In the third experiment, we attempted to replicate the results of experiments 1 and 2 by manipulating participants’ perceived shortness. One hundred and fourteen participants took part in this experiment. To manipulate perceived shortness, we asked participants to role play a short (tall) person, imagining and describing what life would be like for this person. Following this manipulation and a filler task, we assessed participants’ creativity. Specifically, participants were asked to come up with as many creative ideas as they could think of for a new type of mattress (Mehta, Zhu, and Cheema 2012). Again, the creativity scores served as our dependent variable. One-way ANOVA showed a significant effect of our shortness manipulation on the creativity displayed by the participants such that those in the short perception condition were more creative than those assigned to the high perception condition ($p < .05$).

To sum up, across three experiments and by employing different creativity measures (e.g., remote associates test, alternative uses test) and both self-reported height and induced state of height perception, we found evidence for our hypothesis that a short stature can make people more creative. To our knowledge, this is first such research demonstrating a relationship between physical height and creativity.

**Can Busyness Influence Consumer Creativity?**

**EXTENDED ABSTRACT**

Despite the fact that technology has relieved modern humans from many of their responsibilities, consumers today feel busier than ever before. Prior research on busyness suggests that consumers prefer being busy relative to being idle (Hsee, et al. 2010), and that busy individuals are perceived to be high in status (Bellizza, et al. 2017). However, very little is known about the psychological processes activated by busyness, and how being busy affects consumer behavior. In this paper, we examine how the perception of being busy affects performance in tasks involving consumer creativity.

Busyness is the perception of having many tasks to complete (Gershuny 2005; Wilcox, et al. 2016). We propose that when an individual is busy, it is harder for the individual to control their thoughts and focus on a specific task. This occurs because the salience of many (vs. few) tasks makes it harder to inhibit thoughts that interfere with the execution of a focal task. Thus, the thought inhibition process that helps people navigate their environment by focusing on information that is relevant to a focal task (Fishbach, et al. 2003; Forster and Liberman 2007; Shah, et al. 2002) is easier to accomplish when the individual does not have many tasks to think about. When the individual perceives that there are many tasks to do, thoughts become less controlled and it is harder to engage in this inhibition process. We propose that this phenomenon increases creativity, and outline four studies that test this framework.

Study 1 sought to test the effect of busyness on task performance across tasks that either did or did not involve creativity. 187 undergraduates listed either three (not busy condition) or ten (busy condition) tasks on their to-do list (Wilcox, et al. 2016), before being assigned to generate new names for a pasta brand (creative task) or solve a series of multiple choice analogies (control task). Results indicated that busyness affected performance on the two tasks differentially ($F(1, 183)$ = 4.06, $p < .05$). In the creative task condition, busyness ($M = 6.36$) led participants to come up with more names that diverged from convention compared to the not busy condition ($M = 5.24; p < .05$), but had no effect on the number of analogies answered correctly in the control task condition ($p = .69$).

Study 2 was designed to replicate the effect of busyness on creativity and directly test the proposed mechanism. 159 undergraduates completed the same busyness manipulation as study 1, then either were subtly encouraged not to control which thoughts came to mind (not-controlled thoughts condition), or read neutral text (baseline thoughts condition). Then they came up with a creative way to use bubble-wrap. An ANOVA revealed a busyness by thoughts interaction on the judged creativity of the ideas ($F(1, 155)$ = 6.83, $p < .01$), such that the busy condition ($M = 3.77$) came up with ideas that were more creative than the not busy condition ($M = 3.16; p < .05$). Additionally, in the not busy condition, the suggestion not to control their thoughts ($M = 3.70$) enhanced the creativity of their ideas compared to the baseline condition ($M = 3.16; p = .07$).

Study 3 aimed to eliminate the effect of busyness on creativity by restoring participants’ ability to control their thoughts. 211 MTurk workers first wrote about their day and how they were busier (vs. less busy) than usual. Next, they were instructed to either think about one of these activities and block out unrelated thoughts (controlled thoughts condition) or think about their morning routine (baseline thoughts condition). Finally, they came up with a creative way that a company could engage its consumers. A busyness by thoughts interaction emerged on the judged creativity of the ideas ($F(1, 207)$ = 3.76, $p < .05$), such that at baseline, the busy condition ($M = 3.47$) came up with ideas that were more creative than the not busy condition ($M = 3.15; F(1, 207)$ = 4.10, $p < .05$), but no effect emerged when participants were controlling their thoughts ($F < 1$). Importantly, in the busy condition, controlling thoughts ($M = 3.13$) reduced creativity compared to the baseline condition ($M = 3.47, F(1, 207)$ = 4.08, $p < .05$).

Study 4 sought to further support our framework by demonstrating that the effect of busyness on creativity is eliminated among participants who have a high tendency to focus on a single set of thoughts when working on a task. 177 MTurk workers evaluated ads that either led them to think about the tasks they had to do (busy-con-
The Way the Wind Blows: How Direction of Airflow Influences Creativity

EXTENDED ABSTRACT

Does it matter where you place a fan in an office or store? Can the direction of airflow change how people think? Our research introduces an understudied environmental factor—airflow—and demonstrates that the direction of this airflow can have a profound influence on consumer creativity. We hypothesize that being upward (i.e., facing the flow of air) versus downwind (i.e., having one’s back to the flow of air) increases consumers’ psychological energy and that this boost in psychological energy has positive consequences for creative performance.

Conceptual Model

Creativity, defined as the production of novel ideas or solutions to problems (Amabile 1983; Moreau and Engst 2016), not only impacts consumer’s purchase behavior in numerous product categories, but is also highly valued in corporate environments. But despite emerging research that has identified aspects of the physical environment that impact creativity (Mehta, Zhu, and Cheema 2012; Steidle and Werth 2013), the potential link between creativity and airflow (from natural drafts and breezes to ventilation systems and fans) in modern day consumption, shopping, and workplace environments has remained unexplored and is worthy of investigation.

Airflow (i.e., the movement of air in an environment) has three key facets: speed, temperature, and direction. Our research focuses on the last facet—the direction of airflow (upwind vs. downwind)—in consumption spaces. Although the relationship between different facets of airflow and air quality has been studied in building design (Chung and Hsu 2001; Imbabi 2006; Yu et al. 2009), the possible psychological impact of airflow has rarely been explored. The present research aims to extend the extant literature by testing the prediction that facing upward boosts creativity by enhancing people’s psychological energy.

Psychological energy (i.e., the perceived energy available to the self) is reflected in feelings of aliveness and vitality (Ryan and Deci 2008; Thayer 1989) and depends upon both psychosocial and physical factors (Ryan and Frederick 1997). Given that airflow is an environmental factor people experience physiologically, the literature on physical antecedents of psychological energy is particularly germane to our research. Notably, prior research on environmental factors suggests that experiences that are more sensorially invigorating can positively influence people’s perceived psychological resources and vitality (Cheema and Patrick 2012). In the present research, we similarly argue that a sensorial and physiologically energizing experience—in this case, the experience of facing upwind—positively affects psychological energy. Namely, due to differences in the density and type of touch receptors present in the skin over various portions of the human body, humans have greater tactile sensitivity on the front-facing (vs. rear-facing) half of their body (Weber 1978). Therefore, we hypothesize that facing upwind (vs. downwind) will amplify one’s psychological energy (as measured by energetic activation, felt vitality, and willingness to expend energy). Moreover, since prior research has shown that increased psychological energy is associated with cognitive flexibility, improved brain functioning, and thus creativity (De Dreu, Baas, and Nijstad 2008; Deci and Ryan 2000), we predict a similar, mediating role of psychological energy in explaining the positive effect of facing upwind (vs. downwind) on creative performance.

Methodology and Results

Five studies tested the prediction that, by enhancing psychological energy, the experience of facing upwind (vs. downwind) would increase people’s creativity. Study 1 provided initial evidence for our conceptual framework, in a field setting (a public park during a kite festival where a natural breeze was present), by examining whether facing upwind (vs. downwind) increased people’s creativity when naming their dream travel destination and increased their likelihood of choosing to undertake a more difficult, energy-taxing task (an indicator of greater psychological energy; Choi and Fishbach 2011; Inoue 2007). Unbeknownst to participants, they were made to stand either upwind or downwind while taking a short survey. As predicted, the results revealed that participants in the upwind (vs. downwind) condition generated more creative travel destinations and exhibited greater psychological energy (i.e., they were significantly more likely to choose to take home instructions for a difficult vs. easy do-it-yourself kite). Moreover, the effect of airflow direction on creativity was mediated by psychological energy.

Studies 2a and 2b were conducted in the lab. For these studies, all participants were placed in identical rooms (with identical layouts and temperature). The only difference was that the fan in each room was positioned to either blow air towards participants or at their backs (the fans, speed of the airflow, and distance from the fans to participants were identical). Study 2a conceptually replicated the prior energy findings: Participants facing upwind (vs. downwind) exhibited greater psychological energy, as they were significantly more likely to choose to perform a more challenging task for an ostensibly upcoming university-organized conference. Building upon these results, study 2b added a “no wind” control condition (wherein a fan was in the room, but blowing toward the wall) and ruled out several alternative explanations. Namely, that our airflow conditions were also manipulating tense arousal (e.g., anxiety) and hedonic tone (e.g., happiness)—constructs that are distinct from psychological energy (Nix et al. 1999; Ryan and Bernstein 2004). Study 2b revealed that although the experience of facing upwind (vs. downwind or no wind) made people feel significantly more psychologically energized, participants in all three conditions reported having an equally positive mood and feeling equally tense. Thus, hedonic tone and tense arousal could not account for our observed effects.

In study 3 (online), participants imagined a scenario where a fan is blowing at their face (vs. back or no fan) and subsequently completed a remote associates task (RAT) to assess their creativity. Results revealed that participants in the upwind (vs. downwind or control) conditions correctly solved more RAT items. Study 4 tested...
the full conceptual model (in lab). The results revealed that, as predicted, participants in the upwind (vs. downwind or no wind) condition produced significantly more creative drawings of alien animals and felt significantly more vital and energized. Further supporting our theory, mediation analyses revealed that the creativity exhibited by participants in the upwind (vs. downwind or no wind) conditions was significantly mediated by their feelings of psychological energy.

Can Conspicuous Consumption Experience Affect Consumer Creativity?

EXTENDED ABSTRACT

In the United States alone, consumers spend as much as $525 billion per year on luxury products (Bev and Zolenski 2011). It has been argued that consumers seek luxury products to signal status and prestige (Han, Nunes, and Dreze 2010). Such frivolous behavior to publicly display one’s economic wealth and status is called conspicuous consumption (Veblen 1899). Although previous research has extensively examined consumers’ motivation to engage in conspicuous consumption (Rucker, Galensky, and Dubois 2012; Griskevicius et al. 2007), little research has explored the downstream consequences of engaging in such behavior. The current work aims to extend this line of research by examining the effect of conspicuous consumption on consumer creativity. Specifically, we propose that engaging in conspicuous consumption will activate a differentiation mindset, which in turn will lead to higher creativity.

It has been argued that consumption behaviors and products can have ascribed meanings that are generally agreed upon by the members of social groups and general population (Richins 1994). These consumption behaviors then can act as signs, that are interpreted by observers in a given context, to signal consumers’ identity and status (Richins 1994). Conspicuous products are costly items that are exhibitedpublicly to impress upon others that one possesses wealth or status (Sundie et al. 2010). Consumption of such conspicuous products provides individuals a means to dissociate themselves from others (Han et al. 2010). For example, the classic monogram pattern or the popular Damier canvas pattern of the luxury brand Louis Vuitton is synonymous with conspicuousness as these well-recognized patterns send a clear signal of one’s wealth and that such product is beyond the reach of the ordinary (Han et al. 2010).

Extending this line of argument, we suggest that a simple consumption experience of such conspicuous products, that provides consumers a means to dissociate themselves from others, will induce a heightened feeling of distinctiveness or being different from others and activate a unique cognitive process that manifests as a differentiation mindset. We further propose that such differentiation mindset will positively influence consumer creativity. It has been argued that differentiation mindset increases non-conformity and heightens the desire to stand out from others. This in turn enables people to break habitual mental set and think outside of the box leading to higher creativity (Izerman, Leung, and Ong 2014).

In the first experiment, we aimed to test our focal hypothesis that engaging in conspicuous consumption leads to higher creativity. This experiment manipulated conspicuous consumption through a real conspicuous consumption in which participants were provided with either a Prada or a similar non-branded handbag and were asked to put their belongings in the handbag and walked around with the handbag in a public setting. Then they went back to the lab and completed a creativity task (Torrance 1966). As hypothesized, we observed a main effect of conspicuous consumption experience on originality of the generated ideas ($F(1, 190) = 4.49, p = .038$), such that the ideas generated by the participants in the conspicuous condition ($M = 3.47, SD = .73$) were judged to be significantly more original than those in the neutral condition ($M = 3.06, SD = .83$).

In the second experiment, we intended to examine our proposed process. Thus, this experiment employed a 2 (Consumption experience: conspicuous vs. neutral) x 2 (Differentiation mindset: activated vs. control) between-subject design. In this experiment, we manipulated conspicuous consumption through an imagination task and asked participants to imagine using either luxury or neutral products in a public setting. To manipulate differentiation mindset, participants were asked to think about several ways in which they thought they were different from others and then write down how/why they thought so (Kim et al. 2013). In the control condition, participants were simply asked to describe the room they were working in. To measure creativity, participants were asked to come up with a creative idea for a new mattress (Mehta, Zhu, and Cheema 2012). A two-way ANOVA returned a significant interaction between consumption experience and mindset for originality of the generated ideas ($F(1, 190) = 4.39, p = .037$). Under the control condition, we found that conspicuous consumption enhanced originality ($M_{	ext{conspicuous}} = 3.56, SD = .70; M_{	ext{neutral}} = 3.17, SD = .83; t(190) = 2.56, p = .011$). However, no difference was observed between conspicuous consumption ($M = 3.46, SD = .78$) and neutral experience conditions ($M = 3.53, SD = .70; t(190) < 1$) when differentiation mindset was induced.

In the third experiment, we examined a key boundary condition. We argue that if conspicuous consumption takes place in a private setting, then the differentiation mindset should not be activated and thus the effect will be attenuated. We employed a 2 (Consumption experience: conspicuous vs. neutral) x 2 (Setting: public vs. private) between-subjects design, in which the participants actually experienced a conspicuous (or neutral) consumption episode, either in a public or a private setting. In the public settings, the manipulation for conspicuous experience was very similar to experiment 1 besides that rather than wearing a Prada bag, participants wore either a Chanel brooch pearl necklace or a pearl necklace without the Chanel brooch. In the private settings, participants stayed in a private room where they could not be observed by anyone. To measure creativity, participants were asked to come up with new ice-cream flavors for Baskin Robbins. A two-way ANOVA returned a significant interaction between consumption experience and setting type ($F(1, 96) = 4.72, p = .032$). Under the public setting, conspicuous consumption enhanced the originality of ice-cream ideas ($M_{	ext{conspicuous}} = 4.27, SD = 1.03; M_{	ext{neutral}} = 3.56, SD = 1.16; t(96) = 2.25, p = .027$). However, under the private condition, no difference was observed in the originality score ($M_{	ext{conspicuous}} = 3.51, SD = 1.08$) and neutral experience condition ($M_{	ext{neutral}} = 3.81, SD = 1.29; t(96) < 1$).

REFERENCES


Gawley, Tim, Thomas Perks, and James Curtis (2009), “Height, Gender, and Authority Status at Work: Analyses for a National Sample of Canadian Workers,” Sex Roles, 60(3-4), 208-222.


