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ARTICLE

Designing creative spaces: an experimental examination of the effect of a nature poster on divergent thinking

Mark Batey[a], David J. Hughes[b], Lana Crick[c] and Andra Toader[b]

[a]People and Performance, Manchester Metropolitan University, Manchester, UK; [b]Organisational Psychology, University of Manchester Alliance Manchester Business School, Manchester, UK; [c]PricewaterhouseCoopers International Ltd, London, UK

ABSTRACT

This paper reports the results of an independent samples experiment designed to examine the effects of the presence of a large poster depicting a natural woodland scene on individual performance on two Divergent Thinking tasks. In comparison to the no-poster control condition, the presentation of a large poster depicting a nature scene was found to lead to greater levels of creativity as rated by judges who were blind to the experimental design. The effects of the large poster on Divergent Thinking were found to hold when controlling for Openness-to-Experience and Mood. Exploratory analyses of participant ratings of room characteristics indicated that the mechanism underlying the posters' effect related to elevated stimulation.

Practitioner summary: This study compared the effects of presenting a large poster depicting a natural woodland scene (experimental condition) versus no poster (control condition) on individual creative thinking. Three judges, who were unaware of the design of the study, did not know the participant responses were from two different conditions and who did not facilitate the experiment rated the responses of the participants who were exposed to the large poster as significantly more creative.

Abbreviations: DT: divergent thinking; CAT: consensual assessment technique; PANAS: positive and negative affect schedule

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Creativity; divergent thinking; creative space; office design; enrichment

Human resources and office space represent two of the major costs of business operation (Brill, Margulis, and Konar 1984), and the fit between employees and the space that they work within influences employee wellbeing and performance (Dul and Ceylan 2011). Thus, efforts to optimise the design of commercial, corporate, and educational premises are of great importance to researchers and organisations (Thoring, Desmet, and Badke-Schaub 2018).

Many organisations have adopted a neo-Tayloristic approach to lean working, emphasising efficiency and productivity via high levels of managerial control and minimalistic physical workspaces containing only job-relevant artifcats (Danielsson, 2013). However, recent research indicates that lean office spaces are sub-optimal in comparison to enriched workspaces (Nieuwenhuis et al. 2014). The enriched approach advocates for investment in 'environmental comfort' (Vischer 2005, 102) and 'is informed by a belief that such enrichment may promote health. In particular aesthetically uplifting art—particularly images from nature—is believed to reduce stress and anger' (Knight and Haslam 2010, 159) and signal enhanced managerial care and attention.

The most common method of office enrichment. commonly referred to as the 'Green Approach', involves the introduction of natural stimuli (Nieuwenhuis et al. 2014, 199). Green approaches vary in the method of nature contact, ranging from, exposure to 'real' nature (e.g. plants in the office) to virtual depictions of nature (e.g. photographs and artworks) (see Mcmahan and Estes, 2015 for a meta-analytic review). Environments enriched with plants and pictures of nature are perceived to be psychologically comfortable and satisfying, and are conducive to enhanced productivity in straightforward and repetitive tasks indicative of those performed in low-skilled office work (Knight and Haslam 2010; Nieuwenhuis et al. 2014). Given that performance on low-skilled tasks can be boosted by an enriched environment,

CONTACT Mark Batey m.batey@mmu.ac.uk Manchester Metropolitan University, Manchester, M15 6BH, UK
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what about other skills of crucial importance to organisations such as creative thinking (Hughes et al. 2018)?

Organisations often look to environments to boost employee creativity (Amabile et al. 1996; Anderson, Potočnik, and Zhou 2014), which is defined as 'the cognitive and behavioural processes applied when attempting to generate novel ideas' (Hughes et al. 2018, 551). A number of theories and models of workplace creativity hypothesise that interior office design is a strategic organisational resource with the potential to foster (or hamper) creative performance (Woodman, Sawyer, and Griffin 1993). For example, Amabile et al. (1996, 249) stated that 'physical environments that are engineered to be cognitively and perceptually stimulating can enhance creativity'. However, despite the theoretical credence afforded to the effect of the environment on creativity, and recurrent calls for research (e.g. Dul and Ceylan 2011, 2014; Thoring, Desmet, and Badke-Schaub 2018), there is currently little empirical evidence that examines the effect (or lack thereof) of environments on creativity (Anderson, Potočnik, and Zhou 2014). The few studies that have been conducted generally suggest that enriched office spaces are considered conducive to creativity. For example, when describing a creativity-inducing environment (Alencar and Bruno-Faria 1997) or rating the creativity-inducing potential of photographed office spaces (Ceylan, Dul, and Aytac 2008), participants considered offices enriched with adequate illumination, space, natural wood products, and plants to be beneficial for creativity.

Moving from the creativity-inducing potential of environments to direct assessments of creativity, Dul and colleagues found that employees' ratings of their current working environment were correlated with self-rated creative performance (Dul and Ceylan 2011), and explained incremental variance beyond that explained by creative personality (Dul, Ceylan, and Jaspers 2011). In addition, two studies examined the effect of the environment on performance measures of creativity. Stone and Irvine (1994) found that creative performance, assessed by an associational fluency task, was unaffected by the presence (experimental condition) or absence (control) of a window. However, participants reported that they believed the room with a window would be more helpful in tackling a creative task, suggesting a distinction between the perceived and observed benefits of environments for creativity. More recently, Dul and Ceylan (2014) found that internal 'key informant' (e.g. senior manager from the responding organisation) ratings of the work environment were correlated with new product productivity (i.e. volume of new product development) and new product success (i.e. % of sales generated from the new product). However, ratings of the work environment aggregated both social-organisational (i.e. job characteristics such as autonomy and rotation) and physical work environmental factors (i.e. furniture, plants, light, etc.), meaning that the study was unable to assess the specific influence of the physical work environment.

Present study

The studies outlined above suggest that environments with natural stimuli or pictorial representations of nature can be helpful for creativity and make environments feel more supportive of creativity. However, they do not provide the robust evidence required to begin to make policy recommendations, namely, that environmental enrichment influences actual creativity (i.e. generation of novel ideas). To address this gap in empirical evidence, we conducted an independent samples experiment designed to examine the effects of the presence of a large poster depicting a natural woodland scene on performance on two creativity tasks. The design of our study allowed us to examine the effects and address three key limitations of existing research.

First, previous research is typically correlational and thus cannot make causal claims about the influence of enriched offices on creativity (see Hughes et al. 2018). In contrast, our study is experimental. By manipulating the environment, whilst holding other variables constant, the design provides a test of the causal effects (Hughes et al. 2018).

Second, previous studies have rarely followed best practice guidelines, assessing creativity using self-ratings, non-standardised tests, and conflated metrics of creativity and innovation (Hughes et al. 2018; Zeng, Proctor, and Salvendy 2011). In contrast, we assess creativity using two well-established Divergent Thinking (DT) tests: The Unusual Uses (Guilford, 1967) and Consequences Tasks (Christensen, Merrifield, and Guilford 1958), which predict real-world creative achievement (Plucker 1999; Runco et al. 2010). Both require participants to generate numerous and varied ideas in response to a given scenario, and thus, assess the central component of creativity: idea generation. Performance was assessed in terms of fluency (i.e. the number of ideas generated) and rated creativity (Amabile 1982) whereby judges, blind to the study design, rated the creativity of the ideas generated. The rating of creative outputs is considered the gold standard approach for creativity assessment for research purposes (Cseh and Jeffries 2019) and is

preferred to statistical methods of analysing response rarity (Nusbaum and Silvia 2011).

Third, previous studies have tended to aggregate or simultaneously manipulate an array of design features (e.g. light, furniture, etc.), social-organisational features (e.g. challenging work, supervisory support, etc.), or natural enrichments (e.g. both plants and pictures of plants), making it impossible to delineate which environmental enrichments are most important. In contrast, we conducted a targeted examination of one enriching feature: a large poster depicting a natural woodland scene. To examine whether any effects could be considered robust and practically useful, we controlled for the personality trait of openness-to-experience and mood because both constructs have been consistently demonstrated to explain substantial proportions of variance in DT test scores (Batey and Furnham 2006; Batey and Hughes 2017; Davis 2009). Based on the evidence outlined above, we pose the following hypotheses:

H1: Participants exposed to a large poster depicting a natural woodland scene in the experimental condition will produce significantly more ideas than participants in the control condition on the Unusual Uses Test and the Consequences Test.

H2: Participants exposed to a large poster depicting a natural woodland scene in the experimental condition will produce ideas that are rated as significantly more creative than participants in the control condition on the Unusual Uses Test and the Consequences Test.

H3: The main effects of the presentation of a large poster depicting a natural woodland scene will remain significant when controlling for the covariates of openness-to-experience and mood.

Thus, in line with past research, we hypothesise that the large poster will enrich the office environment and induce creativity, but one key question to ask is: why? Two major theoretical perspectives offer competing explanations. The first theory posits that natural physical environments and pictorial representations of these environments are a source of stimulation (e.g. Amabile et al. 1996; Thoring, Desmet, and Badke-Schaub 2018). Stimulating environments are hypothesised to increase the rate and quality of mental associations leading to a greater pool of potential ideas in accordance with the Blind Variation Selective Retention Combinatorial Model (Campbell 1960; Simonton 2010). The second theory—Attention Restoration Theory (Kaplan and Kaplan 1989)—argues that engaging with nature and pictorial representations of nature helps to relieve mental fatigue and stress, which facilitates the recovery of depleted resources (e.g. attention, emotional wellbeing). These recovered resources can subsequently be deployed on other mental activities such as idea generation (Kaplan and Kaplan 1989). These two competing theoretical perspectives argue that distinct psychological mechanisms underlie the effects of representations of natural stimuli on creativity: stimulation vs. restoration. In the current study, we examined how participants in the experimental and control conditions perceived their environment in order to gain some insight into the subjective perception of the mechanisms at work.

Method

Participants

In total, 127 native English-speaking participants (52 males, 75 females) participants were recruited from corporate real estate offices in three major UK cities ($N = 74$, age range = 20–56 years, $M = 33.20$, $S.D = 9.21$) and a Sixth Form College ($N = 53$, age range = 16–18 years, $M = 17$, $S.D. = .34$). An a priori power analysis was conducted using GPower (Faul et al. 2007), with alpha = .05 and power = 0.80, the projected sample size needed to detect a medium effect size was approximately 128, meaning that our final sample closely approximated the needed sample size.

Materials

Poster: A large, 8 ft × 8 ft, poster depicting a natural woodland scene presented across four panels was employed as the experimental manipulation for the environment (poster versus no poster). The poster depicted grass, trees and sky on a bright day (see Supplemental Appendix).

Divergent Thinking was assessed using two timed divergent thinking (DT) tasks, in order to provide a broad assessment of the multi-faceted construct of creativity (Furnham et al. 2008). *The Unusual Uses Task* (Guilford 1967) was employed, whereby participants were given 3 min to name as many uses as they could for a balloon.

The Consequences Task (Christensen, Merrifield, and Guilford 1958) was utilised, whereby participants were given 3 min to list as many consequences as they could for a hypothetical scenario in which 'everybody in the world suddenly became deaf'. DT tests are valid predictors of creative and lifetime achievement (Plucker 1999; Runco et al. 2010). The Divergent Thinking tasks were scored in two ways by three trained judges (two postgraduate psychologists with

familiarity of creativity assessments and a senior academic) who were blind to the study aims, did not know that responses came from two different conditions, did not know the participants, and did not facilitate the experiment. First, a 'fluency' score; an objective count of the total number of non-repeating ideas generated. Second, the Consensual Assessment Technique (CAT; Amabile 1982; Cseh and Jeffries 2019) was employed to produce a subjective score of *'rated creativity'* for the two DT tasks. The CAT 'taking the consensus opinions of domain experts—is considered a 'gold standard' of creativity assessment for research purposes' (Cseh and Jeffries 2019, 159). Judges were instructed to rate the responses using a 5 point likert scale, where 1 = little or no evidence of creativity and 5 = significant evidence of creativity. The reliability coefficients for the CAT rated creativity were $\alpha = 0.88$ for Unusual Uses and $\alpha = 0.88$ for Consequences. Further, in accordance with the CAT, proximal ratings were also given for Intelligence and Humour, but not used in the analyses.

Mood was assessed with the Positive and Negative Affect Schedule (PANAS; Watson, Clark, and Tellegen 1988) which consists of 20 words each depicting an emotion that are responded to using a 10 point continuous scale from 1 (*'very slightly or not at all'*) to 10 (*'extremely'*). A rating of high Positive Affect (PA) is characterised by a state of high energy, full concentration and pleasurable engagement, in comparison low PA is characterised by lethargy and sadness. A rating of high Negative Affect (NA) is characterised by a state of subjective distress and un-pleasurable engagement, in comparison low NA is characterised by calmness and serenity. The scales are highly reliable (PA α = .89, NA α = .85) and modestly correlated (r = −.15; Watson, Clark, and Tellegen 1988).

Openness-to-experience was assessed using the Openness scale from the Mini International Personality Item Pool (Donnellan et al. 2006) versions of the 20-item 'mini' Five-Factor Model measure.

Perceptions of the Environment were assessed using the Checklist for Rating Theoretical Dimensions of Photographic Images (McCoy and Evans 2002). This consists of 21 items that measure 7 theoretical dimensions (Nature, Challenge, Freedom, Support, Coherence, Threat and Status Quo). The wording of items was adapted slightly to refer to the present situation rather than a hypothetical situation (e.g. from 'I would feel refreshed here' to 'I feel refreshed here').

Procedure

Ethical Approval was received from Alliance Manchester Business School. Participants were randomly allocated to the experimental (poster) or control (no poster) condition. Once in the room, participants read an information sheet, provided written informed consent, and were informed of their right to withdraw from the study. Two sessions were held per day, with each session approximately one hour in duration. An experimenter invigilated at all times. A maximum of 30 participants attended any one session. Each session was held in a windowless room or a room with closed blinds. In the experimental condition, a large 8 ft × 8 ft nature poster was affixed to four panels, as depicted in the Supplemental Appendix. Participants were seated at tables facing the front of the room. In the poster condition, participants were seated directly facing the poster. The experimenter worked from a scripted protocol.

Participants worked through the tasks in accordance with the allocated time limits. First, participants completed the demographic information. Second, the two DT tests with an instruction to *'be creative'* because this increases the 'validity' of divergent thinking scores (e.g. Harrington 1975). Third, The Positive and Negative Affect Schedule, the openness-to-experience scale, and rated their perceptions of the environment. Participants were fully debriefed on completion of the experiment and instructed not to discuss the experiment with colleagues.

Results

Means, standard deviations, and correlations among the study variables are presented in Table 1.

Table 1. Means, standard deviations, and correlations among the study variables.

Variables	*M*	*SD*	1	2	3	4	5	6	7	8
1. Uses fluency	8.31	3.96	–							
2. Uses creativity	2.87	0.97	.21*	–						
3. Consequences fluency	7.31	2.43	.38**	.20*	–					
4. Consequences creativity	2.68	0.95	0.16	.64**	.27**	–				
5. Poster	0.49	0.50	−0.01	.40**	0.09	.56**	–			
6. Positive affectivity	5.45	1.88	.20*	.19*	.21*	0.09	−0.02	–		
7. Negative affectivity	2.06	1.21	−0.11	−0.13	−0.11	−0.13	−0.02	0.13	–	
8. Openness	7.36	1.53	0.09	.24**	.21*	.29**	0.00	.30**	−0.16	–

Note. $N = 127$.
*$p < .05$; ** $p < .01$.

Table 2. ANCOVA results for each independent variable with poster as between-subjects factor.

Predictors	Uses fluency				Uses creativity				Consequences fluency				Consequences creativity			
	MS	*F*(1,122)	*p*	η_p^2	*MS*	*F*(1,122)	*p*	η_p^2	*MS*	*F*(1,122)	*p*	η_p^2	*MS*	*F*(1,122)	*p*	η_p^2
Negative affectivity	34.59	2.27	.13	.02	1.43	1.96	.16	.02	8.24	1.48	.23	.01	.69	1.24	.27	.01
Positive affectivity	82.32	5.41	.02	.04	2.45	3.37	.07	.03	22.60	4.05	<.05	.03	.09	.16	.69	<.001
Openness	.04	<.003	.96	<.001	3.18	4.37	.04	.04	11.17	2.00	.16	.02	7.06	12.63	<.001	.09
Poster	.07	<.005	.95	<.001	18.89	25.96	<.001	.18	6.26	1.12	.29	.01	36.36	65.08	<.001	.35

Note. *N* poster = 62. *N* control = 65.

Table 3. Means and standard deviations per experimental condition for each dependent variable.

Dependent variables	Poster *M*(*SD*)	Control *M*(*SD*)
Uses fluency	8.29(3.94)	8.34(4.00)
Uses creativity	3.26(1.00)	2.49(.78)
Consequences fluency	7.53(2.61)	7.09(2.25)
Consequences creativity	3.23(.96)	2.15(.60)

Note. *N* = 127.

To test hypotheses 1–3, regarding the effect of the poster on creativity, we ran a MANCOVA with DT fluency (i.e. number of non-repeating ideas) and CAT-rated creativity (i.e. judge-rated creativity of ideas) on the uses and consequences tests as dependent variables, the poster experimental condition as between-subjects factor, and mood and openness-to-experience as covariates. Results for the whole sample showed a main effect of the poster, Wilks' Lambda = .64, $F(4,119) = 16.79$, $p < .01$, $\eta_p^2 = .36$[1]. We followed up with individual ANCOVAs for each dependent variable. Results are presented in Tables 2 and 3.

Contrary to hypothesis 1, mean fluency scores did not significantly differ between the conditions. To further examine whether the maximum scores between conditions differed significantly, we conducted a Necessary Condition Analysis in R version 3.6.3 (see Dul 2019). The poster was unrelated to maximal performance in consequences fluency (CE-FDH effect size $d = .00$, $p = 1.00$) and uses fluency ($d = .11$, $p = .24$). However, in support of hypothesis 2, the poster condition did have a significant effect on the judge-rated creativity of the ideas generated in both tasks.

To examine whether participants perceived any difference between the poster and control condition, we ran *t*-tests on the perception of room characteristics in the poster and no poster conditions. Results are presented in Table 4. Participants perceived the room with a poster as increasing their curiosity, inspiration, intellectual stimulation, and independence, whereas they perceived the room without a poster as more peaceful, but unwelcoming, and limiting. These results indicate that the room with a poster was perceived as more stimulating while the room without a poster was less stimulating.

Discussion

In the current study, we experimentally examined the effects of enriching an office space with a large poster depicting a natural woodland scene on creative performance in two DT tests. In addition, we examined how participants in the experimental (poster) and control (no poster) conditions perceived their environment influenced their cognitive state. Compared to participants in the control condition, participants who generated ideas in the presence of a poster depicting a natural physical environment did not generate a greater number of ideas. However, they did generate ideas considered, by judges blind to the design of the study, to be more creative. These effects were consistent across two forms of divergent thinking, namely, the Unusual Uses and Consequences tasks. In other words, a room enriched with a large poster depicting a natural woodland scene enhanced the rated quality, but not the quantity of participants' ideas.

Thus, the central finding is that modest enrichments of the physical office environment can influence the creativity of idea generation. The observed effect sizes are of a magnitude typically considered to be 'medium' in size (Lakens 2013), meaning the effect of enriching an office space with a large poster depicting a natural woodland scene is modest but not trivial. From a practical perspective, given the relative ease and very low financial cost of introducing posters to the work environment, this method of office enrichment is potentially a rather cost-efficient intervention.

Our findings are consistent with and extend past work in three ways. First, whereas past research demonstrated that enriched workspaces can be psychologically advantageous and increase productivity for tasks indicative of routinised office work (Knight and Haslam 2010; Nieuwenhuis et al. 2014), we have found, in keeping with theoretical suggestions, that optimising the design of the physical environment can also facilitate creativity (e.g. Amabile et al. 1996; Thoring, Desmet, and Badke-Schaub 2018).

Second, whereas previous research on creativity and environments has tended to be correlational, aggregate or simultaneously manipulate enriching environmental features (e.g. Dul and Ceylan 2014),

Table 4. Univariate statistics for room perception in the poster and no poster conditions.

Dependent variable	*t*	Control *M*(*SD*)	Poster *M*(*SD*)	*p*	*d*
Personal peace	2.35	4.35(2.22)	3.50(1.84)	.02	.42
Refreshed	1.14	3.83(1.92)	3.47(1.66)	.26	.20
Inspiration	2.49	2.26(1.55)	3.03(1.92)	.01	.44
Curiosity	3.40	2.57(1.92)	3.95(2.62)	.00	.60
Intellectual stimulation	4.77	3.31(2.05)	5.18(2.36)	.00	.85
Tackle complex issues	.03	5.37(2.53)	5.35(2.39)	.97	.51
Independence	1.99	3.43(1.92)	4.16(2.22)	.05	.35
Open to new experiences	1.14	4.18(2.12)	4.64(2.44)	.26	.20
Do anything I want	.73	2.78(2.11)	2.53(1.79)	.47	.13
Encourages me	1.83	3.65(1.98)	4.34(2.29)	.07	.32
Feel competent	.76	4.88(2.47)	5.23(2.68)	.45	.14
Could do many things	.35	4.20(2.43)	4.35(2.50)	.72	.61
Makes sense	.66	3.52(2.47)	3.26(2.04)	.51	.11
Feel at home	1.09	3.49(2.04)	3.06(2.37)	.28	.19
Feel "together"	.83	3.94(2.01)	3.61(2.39)	.41	.15
Feel apprehensive	.22	3.18(1.89)	3.11(1.77)	.83	.04
Feel uncomfortable	.31	3.05(1.87)	2.94(2.19)	.76	.05
Do not want to spend time here	2.12	4.20(2.29)	3.32(2.37)	.04	.31
Place limits me	3.14	4.28(2.29)	3.00(2.29)	.00	.56
Required to follow rules	.97	4.49(2.30)	4.11(2.09)	.33	.17
Conform to rigid standards	.48	5.32(2.36)	5.53(2.52)	.63	.09

Note. $N = 125$. Participants were asked how being in this place (the room) made them feel.

and use self-ratings (e.g. Ceylan, Dul, and Aytac 2008; Dul, Ceylan, and Jaspers 2011) or non-standardised assessments of creativity (e.g. Stone and Irvine 1994); we used an experimental design, enriched one feature of the environment, and used well-established DT tests.

Third, we conducted an exploratory investigation into two potential competing mechanisms that might explain the enriching effect of pictorial representations of nature on creativity, namely, stimulation and attention restoration. Participant ratings of the two rooms provided no evidence in support of the attention-restoration theory because the control condition was considered more peaceful and no significant difference was observed in feelings of refreshment, both of which would likely be required to relieve mental fatigue and stress (Kaplan and Kaplan 1989). However, participants' ratings provided tentative support for the stimulating role of the nature poster. Specifically, participants in the poster room felt enhanced levels of curiosity, independence, inspiration, and intellectual stimulation, and also perceived the room less limiting.

These results suggest that exposure to enriching representations of nature, rather than inducing a state of rest and calm, may have a stimulating effect on the psyche. Hence, the poster may have induced an active, stimulated state that facilitated a greater rate of mental associations. It is possible that participants in the poster condition more rapidly conducted their initial search of common associations, allowing them to spend more time combining more unusual associations that are rated as more creative (e.g. Beaty and Silvia 2012). Such an explanation would be in accordance with the Blind Variation Selective Retention Combinatorial model of creative ideation (Campbell 1960; Simonton 2010).

Limitations and future research

Despite notable strengths, including the experimental design and manipulation of a single feature of the environment, the use of standardised measures of creativity, and assessing the robustness of the effect in the presence of key covariates, the study has several limitations. First, although in line with the apriori power analysis, our sample size is modest, which might limit the generalisability of the findings. However, we found moderate effect sizes that were robust to the inclusion and exclusion of control variables, suggesting that the effect is a reasonable candidate for future research and replication.

Second, our study did not include an active control condition in addition to the no poster control condition. Future research with active control conditions could help to more clearly disentangle what carries the causal effect. For example, whether it is important that enriching posters depict natural woodland scenes as opposed to others (e.g. depicting futuristic, extra-terrestrial, urban environments, etc.) and whether variations of other elements pf poster depictions matter (e.g. colour palette, complexity, etc.). Such research would allow us to identify which enriching elements carry the effects.

Third, participants worked on divergent thinking tasks, which assess idea generation in response to hypothetical scenarios. Future research should consider using tasks and scenarios that assess a broader set of creativity and innovation-relevant processes including convergent thinking (e.g. problem formulation, implementation planning; Hughes et al. 2018).

Fourth, the use of a controlled experimental setting was crucial in order to estimate the causal effect hypothesised (Hughes et al. 2018). However, it would be interesting to use naturalistic field experiments to examine how natural physical environment indicators influence or interact with other features in perceptively rich environments (e.g. Dul, Ceylan, and Jaspers 2011), whether different aspects of the creativity-innovation spectrum (e.g. problem finding, implementation planning) are equally influenced by environmental manipulations (Hughes et al. 2018), and whether the effects extend to group-based idea generation.

Implications and conclusion

The current experimental study demonstrated that modest enrichments to physical office environments can influence the creativity of ideas generated. There are several potential implications. First, organisations keen to increase creativity could consider enriching their working environment using large posters and pictures depicting natural scenes. Our findings suggest that such interventions would likely provide a low-risk and cost-effective strategy to stimulate a creative mindset for employees and increase the novelty of their idea generation. Second, workspaces without enrichments in the form of large posters with representations of natural scenes may provide a calming environment for employees when needed, but should probably be avoided when creativity is desired.

Note

1. Results for the corporate real estate sample: Wilks' Lambda = .45, $F(4,66) = 19.87$, $p < .01$, $\eta p^2 = .55$. Results for the college sample: Wilks' Lambda = .68, $F(4,45) = 19.87$, $p < .01$, $\eta p^2 = .32$.

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ORCID

Mark Batey http://orcid.org/0000-0002-9818-7525

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