Inspired to Create:

Awe Enhances Openness to Learning and the Desire for Experiential Creation

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WEB APPENDIX

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FOLLOW-UP EXPERIMENT A

Follow-up experiment A was designed to conceptually replicate the findings of experiment 1 and provide a test of specificity. For convergent validity, we used a different operationalization of both the independent and dependent variables: Emotions were manipulated using a video slideshow and we measured consumers' willingness to pay for products containing experiential creation elements. We predicted that experiencing awe (vs. happiness) would lead people to be willing to pay more for these products. To test the specificity of our account, we also tested if awe alters people's willingness to pay for products that do not involve experiential creation. Because our theory specifically relates awe to experiential creation desires, we predicted that awe would not affect willingness to pay for these not-experiential-creation products.

Participants and Procedure

Eighty-eight individuals from a university-run, nationwide pool (70% female; $M_{Age} = 35.98$; $SD_{Age} = 11.35$) completed the study in exchange for \$5. The experiment used a 2 cell (Emotion: Awe vs. Happiness) between-subjects design.

As a cover story, participants were told they would complete two unrelated surveys. In the first survey, emotions were manipulated by randomly assigning participants to watch an awe-eliciting or happiness-eliciting slideshow. The slideshows were the same length and included the same number of images. The images were of known elicitors of awe (e.g., galaxies, sunsets, sand dunes, mountain peaks, Earth from space, and waterfalls) or happiness (e.g., families, desserts, puppies, babies, kittens, and smiling couples; Mikels et al. 2005). Participants then reported how the slideshow made them feel ($1 = very \ bad$, $7 = very \ good$; $1 = very \ negative$, $7 = very \ positive$) and how much they liked the images in the slideshow ($1 = not \ at \ all$, $7 = very \ much$).

In a second survey, participants reported how much they would be willing to pay for 16 products. For each product, participants saw an image and a list of features, and then reported their willingness to pay. All products, images, and descriptions were the same across conditions and presented in random order. In total, eight of the products had experiential creation elements and eight did not. The products were four pieces of experiential creation furniture (a coffee table, sofa table, bookshelf, and dresser that required assembly), four pieces of not-experientialcreation furniture (a coffee table, sofa table, bookshelf, and dresser that came fully assembled), two experiential creation food products (an Italian pasta cookbook and all-purpose cookbook), two not-experiential-creation food products (a premade and home delivered pasta dish for two and premade and home delivered entrée for two), two experiential creation art products (a kit for making a woodworked pen and sketching/drawing set), and two not-experiential-creation art products (a premade woodworked pen and professional art print). Last, as a manipulation check, participants reported the extent they currently felt "fear," "sadness," "pride," "awe," "peacefulness," "excitement," "happiness," and "boredom" (1 = not at all; 7 = extremely). Results and Discussion

Manipulation checks. One-way ANOVAs on the emotion items confirmed that those in the awe condition (M = 4.47, SD = 1.86) reported feeling stronger awe during the experiment than did those in the happiness condition (M = 1.89, SD = 1.50; F(1, 86) = 51.62, p < .01, η_p^2 = .38), and that those in the happiness condition (M = 5.02, SD = 1.12) reported feeling happier during the experiment than did those in the awe condition (M = 4.26, SD = 1.16; F(1, 86) = 9.99, p < .01, η_p^2 = .10). Ratings of the other emotions did not differ significantly across conditions (Fs < 2.44, NS). Moreover, participants in the awe and happiness conditions liked the slideshows equally (M_{Awe} = 6.12, SD_{Awe} = 1.30 vs. M_{Happy} = 5.84, SD_{Happy} = 1.02; F(1, 86) = 1.20, p = .28)

and felt equally positive ($M_{Awe} = 5.65$, $SD_{Awe} = 1.13$ vs. $M_{Happy} = 6.02$, $SD_{Happy} = 1.01$; F(1, 86) = 2.64, p = .11) and equally good ($M_{Awe} = 5.63$, $SD_{Awe} = 1.09$ vs. $M_{Happy} = 5.82$, $SD_{Happy} = 1.01$; F(1, 86) = .76, p = .39) in response to them. Hence, the manipulation effectively altered emotional states without producing extraneous differences in other perceptions of the slideshow.

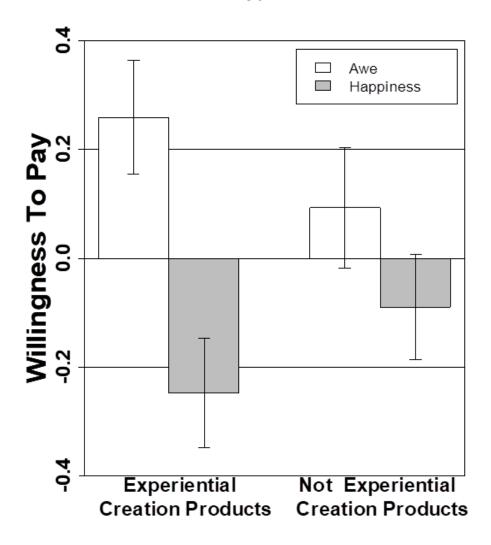
Willingness to pay. All WTP amounts were log-transformed to correct for positive skewness and then converted to Z-scores prior to analyses to allow for averaging and within-subjects comparison across products (Sussman and Alter 2012). We formed a WTP experiential creation index and a WTP not-experiential-creation index by averaging all WTP amounts for the experiential creation products (α = .87) and not-experiential-creation products (α = .84), respectively. To test our prediction that experiencing awe (vs. happiness) would influence consumers' WTP for products that involved experiential creation (but not WTP for comparable not-experiential-creation products), we conducted a 2 (between-subjects condition: awe vs. happiness) by 2 (within-subjects condition: product type) mixed-measures ANOVA. The results revealed (see Figure A1) the predicted interaction between emotion condition and product type (F(1, 86) = 21.15, p < .01, η_p^2 = .20): Participants in the awe (vs. happiness) condition were willing to pay significantly more for the experiential creation products (Z_{Awe} = .26, SD_{Awe} = .69 vs. Z_{Happy} = -.25, SD_{Happy} = .67; p < .01, η_p^2 = .12), but were equally willing to pay for the not-experiential-creation products (Z_{Awe} = .09, SD_{Awe} = .73 vs. Z_{Happy} = -.09, SD_{Happy} = .65; p = .22).

To assess whether a few specific items drove the observed effects, we also conducted two separate 2 (between-subjects condition: awe vs. happiness) by 8 (within-subjects condition: individual products evaluated) mixed-measures ANOVAs with Greenhouse-Geisser corrections. The first ANOVA, which examined the effect of emotion condition on WTP for experiential creation items, again revealed the predicted main effect of emotion condition: Participants in the

awe (vs. happiness) condition were willing to pay more for the experiential creation products (p < .01, $\eta_p^2 = .12$). But importantly, there was no interaction effect (F(4.67, 401.47) = .77, p = .56), indicating that the main effect of emotion condition was not driven by a few specific items. The second ANOVA examined the effect of emotion condition on WTP for products that did not involve experiential creation, and revealed a nonsignificant main effect of emotion condition (as before, those in the awe and happiness conditions were equally willing to pay for these products; p = .22) and a nonsignificant interaction (F(5.37, 461.73) = .73, p = .61), indicating that the nonsignificant main effect of emotion was not driven by a few specific items.

Discussion. Follow-up experiment A showed that the experience of awe affects consumers' willingness to pay for products that have an experiential creation component: People who were induced to feel awe, as opposed to happiness, were willing to pay more for experiential creation products. This effect was not limited to one product category, as it generalized to products in the furniture, arts and crafts, and food industries. Hence, using a new method of inducing emotions and a new set of experiential creation outcome measures, the findings of experiment A conceptually replicated those of experiment 1. Experiment A also provided a test of theory specificity. It showed that people in the awe and happiness conditions reported equivalent willingness to pay for not-experiential-creation products. This specificity test helps to rule out a key alternative explanation: that awe increases willingness to pay in general. That is not the case, as awe boosted willingness to pay only for products with an experiential creation component.

FIGURE A1



Notes: Effects of awe and happiness on willingness to pay for experiential creation products and products that are not experiential creation.

FOLLOW-UP EXPERIMENTS B AND C

Follow-up experiments B and C had several objectives. First, these studies aimed to extend the findings of experiment 4 and further demonstrate that awe's effect on openness to learning and experiential creation desire is not simply characteristic of all positive emotions by comparing awe to additional discreet positive emotions. Follow-up experiment B manipulated

awe (vs. pride vs. a neutral state) and experiment C manipulated awe (vs. amusement vs. a neutral state). Pride was selected as a comparison because although both awe and pride are positive and arousing, these emotions differ in terms of their elicitors insofar as awe (but not pride) is strongly linked to a need for accommodation (Shiota et al. 2007). Pride was also chosen because both awe and pride experiences could be seen as involving some kind of perceptual vastness—whereas awe is externally elicited by stimuli perceived as vast (e.g., panoramic views or novel architecture; Keltner and Haidt 2003; Shiota et al. 2007), pride is internally elicited by perceptions of great (i.e., vast) personal control, accomplishments, or abilities (Smith and Ellsworth 1985; Tracy and Robins 2004). Amusement was selected as a comparison because although both awe and amusement are positive and involve an incongruity between one's expectations and experience, an important difference between these emotions is that whereas the resolution of an incongruency is what serves as a key elicitor of amusement (Suls 1972; Wyer and Collins 1992), it is the lack of resolution of an incongruancy and the accompanying need for accommodation (plus perceptual vastness) that are key for awe experiences (Keltner and Haidt 2003). Both pride and amusement were also selected because they are commonly used as positive emotions with which to contrast the effects of awe (Piff et al. 2015; Shiota et al. 2007; Valdesolo, Park, and Gottlieb 2016; Van Cappellen and Saroglou 2012).

Thus far, experiential creation desire has been measured using both actual choice behavior (experiments 1 and 2) as well as scenario-based measures (experiments A, 3, and 4). However, a possible limitation to these measures is that they measure experiential creation desire relatively indirectly, rather than more explicitly. Hence, a second objective of these follow-up studies was to obtain additional evidence of the proposed openness to learning mechanism and further demonstrate the generalizability of our predicted effects by measuring both general desire

to make or create things (a more explicit measure of experiential creation desire) and preferences for meals that require a high (vs. low) amount of experiential creation to prepare. In particular, we predicted a serial mediation: Participants who experienced awe (vs. happiness) would express a greater openness to learning, which would in turn increase their general desire to create, which would in turn lead them to exhibit a stronger preference for meals that required a high amount of experiential creation to prepare (vs. comparable meals low in experiential creation).

A third objective was to build upon the results of experiment 4 by further ruling out the alternative general motivation account (i.e., that awe is simply increasing general persistence or motivation to engage in any activity). Thus, in addition to measuring participants' desire to partake in experiential creation, we measured their desire to partake in another type of activity—exercise. Because our theory specifically relates awe to experiential creation desires, we predicted that awe (vs. pride or a neutral state in experiment B and vs. amusement or a neutral state in experiment C) would not significantly affect the desire to exercise. Last, a fourth objective was to test an alternative explanation for awe's ability to increase the desire for experiential creation. Because the experience of awe can lead to a diminished sense of self (i.e., feeling one's being and goals are less significant) relative to something deemed vaster than the individual (Piff et al. 2015), one could argue that the effect of awe on the desire to partake in experiential creation is not due to a greater openness to learning (as predicted), but instead due to a diminished sense of self. To address this alternative, our follow-up studies measured perceptions of a small self. *Participants and Procedure*

In follow-up experiment B, 155 university students (56.8% female; $M_{Age} = 21.89$; $SD_{Age} = 3.15$) participated for extra course credit. The experiment used a 3-cell (Emotion: Awe vs. Pride vs. Neutral) between-subjects design. In follow-up experiment C, 272 university students

(57% female; $M_{Age} = 22.26$; $SD_{Age} = 3.89$) participated for extra course credit. The experiment used a 3-cell (Emotion: Awe vs. Amusement vs. Neutral) between-subjects design.

As a cover story, participants in both studies were told they would complete several unrelated surveys. In the first survey of follow-up experiment B, emotions were manipulated by randomly assigning participants to one of three narrative recall conditions that induced specific emotions by having participants recall and write about a time when they were in a situation that is a prototypical elicitor of the target emotion. The specific instructions that participants received in each emotion condition were as follows (adapted from Piff et al. 2015). For the awe condition: "Please take a few minutes to think about a particular time, fairly recently, when you felt awe." This might have been a sunset, a view from a high place, or any other time you were in a natural setting that you felt was beautiful." For the pride condition: "Please take a few minutes to think about a particular time, fairly recently, when you felt pride. This might have been being accepted to a university, winning an event or competition, or any other time that you achieved a personal accomplishment." For the neutral condition: "Please take a few minutes to think about something you did fairly recently. This might have been driving a car, eating breakfast, or any other thing that happened during your day." As in Piff et al. (2015), all participants were then asked to write at least five sentences describing the experience, their accompanying emotions, and what they were thinking about during the experience, providing as much detail as they can. In a post-study review of the written narratives, we ensured that all participants followed the instructions.

In the first survey of follow-up experiment C, emotions were manipulated (as in Valdesolo et al. 2016) by randomly assigning participants to watch a 5 minute neutral nature video (a short documentary about the relationship between the goby fish and the pistol shrimp that contains a monotone narration; https://www.youtube.com/watch?v=8YFKdjtLozc),

amusement-eliciting nature video (a montage of comedic nature clips from the BBC's *Walk on the Wild Side*; https://www.youtube.com/watch?v=Kg1gK2E7dAQ) or awe-eliciting nature video (a montage of scenic nature clips from the BBC's *Planet Earth*, which was primarily composed of grand, sweeping shots of plains, mountains, space, and canyons; https://www.youtube.com/watch?v=RUp_P2g8sAc). All videos were in the content domain of nature to avoid potential confounds associated with merely priming nature concepts. Participants then reported how much they liked the video clip ($1 = not \ at \ all$, $7 = very \ much$); how the video clip made them feel ($1 = very \ negative$, $7 = very \ positive$); and "how surprising or unexpected" it was, "how novel or atypical" it was, and "how surprised" they were to see those images used in a nature video ($1 = not \ at \ all$, 7 = very; items were averaged; $\alpha = .86$).

From this point forward, the procedures in experiments B and C were the same. In the second survey, participants imagined they were hungry and wanted something to eat, and then made five hypothetical choices between comparable meal options that were either high or low in experiential creation (i.e., "Make a bowl of homemade soup from 'scratch' on the stove" or "Microwave a bowl of canned soup"; "Bake a homemade cake or pie and eat a slice" or "Eat a slice of store-bought cake or pie"; "Mix up some batter, make a few pancakes on the stove, and then add your toppings of choice" or "Heat-up a few frozen pancakes in the toaster and then add your toppings of choice"; "Take a ready-made pizza crust, add sauce, cheese, and/or any other desired toppings, and bake it in the oven" or "Take a pre-made frozen pizza out of its box and bake it in the oven"; "Make a burrito by sautéing some fillings (e.g., meat or veggies), placing the cooked fillings in a tortilla, and adding any desired extras (e.g., beans, cheese, or salsa)" or "Heat-up a microwavable meat or veggie burrito"). The percentage of high experiential creation meals chosen by participants was our key dependent variable.

Participants then completed a 7-item experiential creation desire index (experiment B: α = .92; experiment C: α = .94) that measured their general desire to create (1 = not at all, 7 = very *much*): "I desire to make things with my hands," "I think making things with my hands would be fun and enjoyable," "I would like to fix or build things," "I think my hands would be capable of creating meaningful and beautiful things," "I would like to assemble parts or construct things," "I want to create something," and "I would like to draw, color, or trace something." Participants also reported their general desire to exercise on a 9-item index $(1 = not \ at \ all, 7 = very \ much;$ experiment B: $\alpha = .88$; experiment C: $\alpha = .81$): "I desire to exercise," "I want to go for a run," "I think exercising would be fun and enjoyable," "I am interested in exercising," "I would like to lift weights," "I would like to do push-ups or sit-ups," "I would like to go swimming," "I would like to use a cardio machine (e.g., treadmill, elliptical, rowing, stationary bike)," and "I would like to participate in exercise-intensive sports (e.g., basketball, soccer, tennis, cycling)." Participants then completed the openness to learning index from experiment 3 (experiment B: α = .86; experiment C: α = .86) and a 10-item small self index (experiment B: α = .89; experiment C: $\alpha = .80$; Piff et al. 2015). Last, participants reported the extent they currently felt "anger," "fear," "sadness," "peacefulness," "excitement," "pride," "awe," "happiness," "boredom," "disgust," "anxious," "surprise," "love," and "amusement" (1 = not at all; 7 = extremely). Results and Discussion

Manipulation checks. For experiment B, one-way ANOVAs were conducted on the emotion items. They confirmed (F(2, 152) = 35.97, p < .01, $\eta_p^2 = .32$) that participants in the awe condition (M = 4.22, SD = 2.03) reported experiencing stronger feelings of awe during the experiment than did those in the pride condition (M = 1.96, SD = 1.29; t(152) = 7.29, p < .01) or neutral condition (M = 1.90, SD = 1.30; t(152) = 7.42, p < .01). The pride and neutral conditions

did not differ in their feelings of awe (t(152) = .20, p = .85). The analyses also confirmed (F(2, 152) = 21.17, p < .01, η_p^2 = .22) that participants in the pride condition (M = 5.49, SD = 1.50) reported experiencing stronger pride than did those in the awe condition (M = 3.80, SD = 1.95; t(152) = 4.76, p < .01) or neutral condition (M = 3.29, SD = 1.94; t(152) = 6.20, p < .01). The awe and neutral conditions did not differ in their reported pride (t(152) = 1.43, p = .16).

The conditions did not differ on the other reported emotions (ts < 1.64, NS), with the following exceptions. The neutral condition (M = 2.10, SD = 1.53) produced marginally higher levels of sadness than the awe condition (M = 1.59, SD = 1.22; t(152) = 1.81, p = .07) but not the pride condition (M = 1.81, SD = 1.49; t(152) = 1.03, p = .31; though sadness was nevertheless low in all conditions), and the neutral condition (M = 1.90, SD = 1.47) produced marginally higher levels of disgust than the awe (M = 1.49, SD = .95; t(152) = 1.74, p = .08) but not the pride condition (M = 1.58, SD = 1.10; t(152) = 1.36, p = .18; disgust was also nevertheless low in all conditions). The neutral condition (M = 4.37, SD = 1.87) also produced lower levels of happiness than the pride condition (M = 5.13, SD = 1.76; t(152) = 2.09, p = .04) but not the awe condition (M = 4.63, SD = 1.95; t(152) = 1.39, p = .17), and the neutral condition (M = 3.61, SD = 1.69) produced marginally lower levels of amusement than the pride (M = 4.23, SD = 1.76; t(152) = 1.75, p = .08) and awe conditions (M = 4.22, SD = 1.96; t(152) = 1.70, p = .09). Together, these manipulation check analyses suggest that the awe and pride conditions successfully induced our target emotions, but not other emotions.

For experiment C, one-way ANOVAs were conducted on the emotion items. They confirmed (F(2, 269) = 83.32, p < .01, $\eta_p^2 = .15$) that participants in the awe condition (M = 4.81, SD = 1.94) reported experiencing stronger feelings of awe during the experiment than did those in the amusement condition (M = 3.01, SD = 1.80; t(269) = 6.53, p < .01) or neutral condition

(M = 3.33, SD = 1.81; t(269) = 5.41, p < .01). The amusement and neutral conditions did not differ in their feelings of awe (t(269) = 1.15, p = .25). The analyses also confirmed (F(2, 269) = 31.78, p < .01, $\eta_p^2 = .06$) that participants in the amusement condition (M = 4.80, SD = 2.04) experienced stronger amusement than did those in the awe condition (M = 4.01, SD = 1.81; t(269) = 2.78, p = .01) or neutral condition (M = 3.64, SD = 1.85; t(269) = 4.11, p < .01). The awe and neutral conditions did not differ in their feelings of amusement (t(269) = 1.31, p = .19).

The conditions did not differ on the other reported emotions (ts < 1.61, NS), with the following exception. The neutral condition (M = 1.72, SD = 1.25) produced marginally higher levels of fear than the amusement condition (M = 1.43, SD = .94; t(269) = 1.71, p = .09) but not the awe condition (M = 1.57, SD = 1.15; t(269) = .91, p = .37; though fear was nevertheless low in all conditions). Finally, the extent to which the ads made participants feel positive (vs. negative) varied by condition (F(2, 269) = 15.77, p < .01, η_p^2 = .11), such that our awe (M = 5.77, SD = 1.31) and amusement conditions (M = 5.83, SD = 1.42) made participants feel more positive than our neutral condition (M = 4.84, SD = 1.29; Awe vs. Neutral: t(269) = 4.68, p < .01; Amusement vs. Neutral: t(269) = 5.02, p < .01), but they did not differ from one another (t(269) = .33, p = .74). These analyses suggest that the awe and amusement conditions induced our target emotions but not other emotions, and did not differ from one another in terms of general positivity. Moreover, neither the extent to which participants liked the video clip (ts < 1.17, NS) or thought the images in the video were unexpected, atypical, or surprising for a nature video (ts < .96, NS) significantly differed across conditions.

Openness to learning. For both follow-up experiment B and C, we conducted a one-way ANOVA on the openness to learning index. As predicted, the results for experiment B revealed that participants in the awe condition (M = 6.23, SD = .81) versus the pride condition (M = 5.36, SD = .81)

SD = 1.43; t(152) = 3.61, p < .01) or versus the neutral condition (M = 5.40, SD = 1.33; t(152) = 3.43, p < .01) currently felt more open to the prospect of learning (F(2, 152) = 8.26, p < .01, $\eta_p^2 = .10$). Similarly, the results for experiment C revealed that participants in the awe condition (M = 6.01, SD = 1.05) versus the amusement condition (M = 5.58, SD = 1.27; t(269) = 2.47, p = .01) or versus the neutral condition (M = 5.60, SD = 1.11; t(269) = 2.39, p = .02) currently felt more open to the prospect of learning (F(2, 269) = 3.93, p = .02, $\eta_p^2 = .03$).

Experiential creation desires and meal preferences. To test whether awe altered experiential creation desires, we conducted one-way ANOVAs on both the general experiential creation desires index and the percentage of high experiential creation meals selected. Both outcomes showed similar patterns in follow-up experiments B and C. For the experiential creation desires index in experiment B, the results revealed that, as predicted, participants in the awe condition (M = 4.74, SD = 1.41) versus the pride condition (M = 4.05, SD = 1.65; t(152) = 2.29, p = .02) or versus the neutral condition (M = 4.08, SD = 1.55; t(152) = 2.17, p = .03) reported a greater general desire to make or create things (F(2, 152) = 3.31, p = .04, $\eta_p^2 = .04$). Also as predicted, the results of experiment B revealed that participants in the awe condition (M = 43.14%, SD = 26.04%) versus the pride condition (M = 27.92%, SD = 19.35%; t(152) = 3.45, p < .01) or versus the neutral condition (M = 26.63%, SD = 21.64%; t(152) = 3.26, p < .01) more strongly favored the high experiential creation meals (F(2, 152) = 7.50, p < .01, $\eta_p^2 = .09$).

For the experiential creation desires index in experiment C, the results revealed that, as predicted, participants in the awe condition (M = 5.03, SD = 1.22) versus the amusement condition (M = 4.38, SD = 1.71; t(269) = 3.02, p < .01) or versus the neutral condition (M = 4.36, SD = 1.39; t(269) = 3.10, p < .01) reported a greater general desire to make or create things (F(2, 269) = 6.24, p < .01, η_p^2 = .04). Also as predicted, the results of experiment C revealed that

participants in the awe condition (M = 58.89%, SD = 21.49%) versus the amusement condition (M = 50.00%, SD = 25.48%; t(269) = 2.54, p = .01) or versus the neutral condition (M = 50.43%, SD = 23.44%; t(269) = 2.42, p = .02) more strongly favored the high experiential creation meals (F(2, 269) = 4.10, p = .02, $\eta_p^2 = .03$).

Exercise desires. To test whether awe also altered participants' desire to exercise, we conducted a one-way ANOVA on the general exercise desires index for both follow-up experiment B and C. Supporting our theory's specificity, the results for experiment B revealed that participants in the awe condition (M = 4.17, SD = 1.44), pride condition (M = 4.48, SD = 1.44), and neutral condition (M = 4.04, SD = 1.26) currently expressed an equal desire to exercise (F(2, 152) = 1.41, p = .25; ts < 1.63, NS). Similarly, the results for experiment C revealed that participants in the awe condition (M = 4.43, SD = 1.28), amusement condition (M = 4.24, SD = 1.31), and neutral condition (M = 4.45, SD = 1.16) currently expressed an equal desire to exercise (F(2, 269) = .76, p = .47; ts < 1.14, NS).

Small self perceptions. To test if awe altered perceptions of a small self, we conducted a one-way ANOVA on the small self index for both follow-up experiment B and C. In line with prior work (Piff et al. 2015), the analyses for experiment B revealed that participants in the awe condition (M = 3.84, SD = 1.14) versus the pride condition (M = 3.20, SD = 1.30; t(152) = 2.63, p = .01) or versus the neutral condition (M = 3.28, SD = 1.26; t(152) = 2.26, p = .03) reported feeling a more diminished sense of self (F(2, 152) = 4.03, p = .02, $\eta_p^2 = .05$). Similarly, the results for follow-up experiment C revealed that participants in the awe condition (M = 4.31, SD = 1.03) versus the amusement condition (M = 3.90, SD = .98; t(269) = 2.61, p = .01) or versus the neutral condition (M = 3.93, SD = 1.15; t(269) = 2.43, p = .02) reported feeling a more diminished sense of self (F(2, 269) = 4.24, p = .02, $\eta_p^2 = .03$).

Serial mediation analyses. Using PROCESS model 6 in SPSS (10,000 resamples; Hayes 2013) and following the procedures recommended in Hayes and Preacher (2014) for performing mediation analyses with multi-categorical independent variables, we conducted serial mediation analyses to test our predicted model: emotion condition → openness to learning → general desire for experiential creation → meal preferences. For experiment B, the first analysis included emotion condition (pride = 0, awe = 1) as the independent variable, the openness to learning index as the first mediator, the general experiential creation desires index as the second mediator, and the percentage of high experiential creation meals chosen as the dependent variable. The remaining emotion condition—the neutral condition—was included as a covariate. To rule out the possibility that one's sense of the size of one's self was the true mechanism underlying awe's ability to alter experiential creation desires, the small self index was also included as a covariate. The second analysis for experiment B was the same, except that emotion condition (neutral = 0, awe = 1) was the independent variable and the pride condition was included as a covariate.

For these two analyses, bootstrapping generated bias-corrected confidence intervals for both the total indirect effect (i.e., total mediated effect) and the specific indirect effects. The results revealed, for both analyses, that the total indirect effect was indeed significant (Pride vs. Awe: b = 5.36; 95% CI: [2.18, 9.70]; Neutral vs. Awe: b = 5.14; 95% CI: [2.09, 9.37]). In particular, the results for both analyses revealed the predicted serial mediation: The indirect effect from emotion condition to meal preferences through both mediators (i.e., openness to learning and general desire to create) was significant (Pride vs. Awe: b = 1.55; 95% CI: [.38, 3.86]; Neutral vs. Awe: b = 1.49; 95% CI: [.36, 3.82]). In sum, these analyses revealed that, even controlling for the effect of small self perceptions, experiencing awe (vs. pride or vs. a neutral state) affected people's preferences for high experiential creation meals by influencing their

openness to learning and general desire to create. Participants in the awe (vs. pride or vs. neutral) condition were more open to learning, which made them more strongly desire to make or create things, which led them to exhibit stronger preferences for meals high in experiential creation. Notably, two additional serial mediation analyses were conducted to further rule out the alternative small self account. These analyses were the same as the two analyses described above, except that the small self index was included as the first mediator while the openness to learning index was instead included as the covariate. The results revealed that, when controlling for the effect of openness to learning, the serial indirect effect from emotion condition to meal preferences through both perceptions of a small self and general desire to create was not significant (Pride vs. Awe: 95% CI: [-.09, .29]; Neutral vs. Awe: 95% CI: [-.58, .20]).

For experiment C, the first analysis included emotion condition (amusement = 0, awe = 1) as the independent variable, the openness to learning index as the first mediator, the general experiential creation desires index as the second mediator, and the percentage of high experiential creation meals chosen as the dependent variable. The remaining emotion condition—the neutral condition—was included as a covariate. To rule out the possibility that one's sense of the size of one's self was the true mechanism underlying awe's ability to alter experiential creation desires, the small self index was also included as a covariate. The second analysis for experiment C was the same, except that emotion condition (neutral = 0, awe = 1) was the independent variable and the amusement condition was included as a covariate.

For these two analyses, bootstrapping generated bias-corrected confidence intervals for both the total indirect (i.e., mediated) effect and the specific indirect effects. For both analyses, that the total indirect effect was indeed significant (Amusement vs. Awe: b = 4.46; 95% CI: [1.59, 7.94]; Neutral vs. Awe: b = 4.56; 95% CI: [2.07, 7.83]). In particular, the results for both

analyses revealed the predicted serial mediation: The indirect effect from emotion condition to meal preferences through both mediators (i.e., openness to learning and general desire to create) was significant (Amusement vs. Awe: b = 1.21; 95% CI: [.15, 2.67]; Neutral vs. Awe: b = 1.18; 95% CI: [.20, 2.61]). In sum, these analyses revealed that, even controlling for the effect of small self perceptions, experiencing awe (vs. amusement or vs. a neutral state) affected people's preferences for high experiential creation meals by influencing their openness to learning and general desire to create. Participants in the awe (vs. amusement or vs. neutral) condition were more open to learning, which made them more strongly desire to make or create things, which led them to exhibit stronger preferences for meals high in experiential creation. Notably, two additional serial mediation analyses were conducted to further rule out the alternative small self account. These analyses were the same as the two analyses described above, except that the small self index was included as the first mediator while the openness to learning index was instead included as the covariate. The results revealed that, when controlling for the effect of openness to learning, the serial indirect effect from emotion condition to meal preferences through both perceptions of a small self and general desire to create was not significant (Amusement vs. Awe: 95% CI: [-.69, .31]; Neutral vs. Awe: 95% CI: [-.67, .26]).

Discussion. Comparing awe to additional discrete positive emotions (as well as a neutral state), and using a more explicit measure of experiential creation desires along with a scenario-based choice measure, follow-up experiments B and C offered additional support for the prediction that awe increases experiential creation desires. People induced to feel awe (vs. pride or vs. amusement or vs. a neutral state) expressed a stronger general interest in creating and were more likely to choose meals that required more experiential creation to prepare. Experiments B and C also provided additional evidence for the mechanism underlying this effect. In line with

our theory (and the results of experiments 2, 3, and 4), participants in the awe (vs. pride or vs. amusement or vs. neutral) conditions also felt more open to learning. Importantly, serial mediation analyses showed that the greater openness to learning experienced by participants in the awe (vs. pride or vs. amusement or vs. neutral) conditions drove their stronger general desire to create, which in turn enhanced their preferences for high experiential creation meals.

Follow-up experiments B and C also helped rule out several alternative accounts. Supporting our theory's specificity, both studies showed that participants in the awe condition did not express a significantly different desire to exercise than did participants in the other emotion conditions. Thus, the greater general desire to make or create things and the greater preference for experiential creation meals expressed by participants in the awe (vs. pride or vs. amusement or vs. neutral) conditions could not be explained by awe simply boosting people's general motivation (e.g., to engage in any activity). Moreover, although perceptions of a small self did differ across conditions—such that those in the awe (vs. pride or vs. amusement or vs. neutral) conditions felt a diminished sense of self—mediation analyses revealed that small self perceptions could not account for awe's effect on experiential creation desire. Together, these results offer added support for the proposed openness to learning mechanism.

POST-TEST EXPERIENTIAL CREATION DEFINITION

Based on the prior research of Dahl and Moreau (2007), we define experiential creation as all activities in which a consumer actively produces an outcome (where "produces" refers to the physical act of making or creating and "actively" means that the consumer plays a direct, active [vs. indirect, passive] role in creating [i.e., consumers see themselves as an agent of the

creation experience rather than a passive bystander]). This outcome-focused definition of experiential creation allows for a continuum of experiential creation that includes activities that can be either high or low in the amount of instructions involved and activities that involve either a well-defined target outcome (in which improvisation is discouraged) or no target outcome at all (in which improvisation is required). To empirically address the questions of whether consumers are able to discriminate between what is and is not experiential creation and whether the effects observed in the present research are limited only to experiential creation that possesses certain combinations of high (vs. low) instructions and high (vs. low) definition of target outcome, we conducted a post-test using consumers from an online panel (N = 101; $M_{Age} = 39.23$, $SD_{Age} = 12.65$, 56% females).

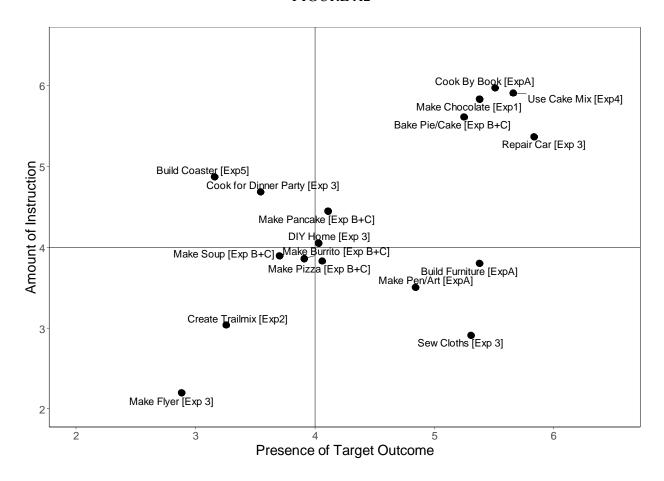
In this post-test, participants were first shown our definition of experiential creation (i.e., all activities in which someone actively produces an outcome). Second, we presented to participants (in random order) a semantic differential of all pairs of activities used throughout our experiments (e.g., purchasing a pre-made chocolate vs. making a chocolate yourself [experiment 1], having a mechanic doing some general car maintenance vs. doing the car maintenance yourself [experiment 3]). Participants were asked to rate each pair on a 7-point semantic differential scale (with a midpoint of zero) using the following instructions: "For each pair of activities, please indicate the behavior you perceive as high in experiential creation. If you think both activities are equally high in experiential creation, choose the midpoint of the scale; if you think one activity is more experiential-creation-oriented than the other, select a scale point that is leaning toward that activity"). After this task, participants were again shown (separately and in random order) each activity/behavior/product that we had previously identified (in our experiments) as being experiential creation, and were asked to use 7-point scales to rate each

activity/behavior/product on the two dimensions of the continuum of experiential creation identified by Dahl and Moreau (2007): high/low instructions; target outcome present/absent.

For the semantic differential pairings, we coded the behaviors/activities that received positive number scores (1 to 3) as experiential creation and behaviors/activities that received negative number scores (-3 to -1) as not experiential creation. Notably, all behaviors/activities that we had labeled in our experiments as experiential creation received positive number scores, and all behaviors/activities that we had labeled in our experiments as not experiential creation received negative number scores. To test whether consumers can empirically discriminate experiential creation from things that are not experiential creation, we then averaged across all the behaviors/activities coded as experiential creation and tested the arithmetic mean against zero. These analyses provide strong evidence that consumers perceived all the experiential creation-oriented vs. not experiential creation-oriented (M = 5.94, t(100) = 53.935, p < .01), and no significant differences were found across all our experiential creation behaviors (all ps > .89). In short, we find consistent evidence that consumers can discriminate between what is and is not experiential creation using the conceptual definition of experiential creation.

For the continuum of experiential creation results, we calculated the average scores that each experiential creation behavior received on the high/low instructions factor and on the target outcome present/absent factor and graphically depicted the results (see Figure A2). In short, we find that awe's effects on experiential creation are not limited to certain portions of the continuum of experiential creation, as we observed this effect with experiential creation activities that fell within each of the four quadrants (no difference in proportions: $\chi^2(1) = .83$, p > .36).

FIGURE A2



Note: This figure illustrates the bivariate distribution of experiential creation options across experiments by presence of target outcome and amount of instructions; solid horizontal and vertical lines indicate scale mid-points.

POST-TEST TV COMMERCIAL AND SLIDESHOW MANIPULATIONS

In many of our experiments (with the exception of follow-up experiment B and experiment 2), emotions were manipulated by exposing participants to various images (i.e., images contained in TV commercials in experiments 1 and 3, picture slideshows comprised of images in experiments A and 5, print ads that featured images in experiment 4, and images contained in nature videos in follow-up experiment C). Consequently, we wanted to rule out the possibility that our observed effects in these experiments were driven not by awe enhancing

openness to learning (as predicted), but instead due to participants potentially perceiving that the images used in these awe manipulations were more disconnected from (or atypical for) the contexts in which they were viewed (e.g., that participants viewed the images in the awe [vs. happiness or neutral] commercial as more atypical or surprising to see in an ad for an LCD television or that participants viewed the images in the awe [vs. happiness] slideshow as more atypical or surprising to see in a picture slideshow). To do so, we conducted two post-tests for the commercial and picture slideshow manipulations, the results of which are detailed below. Additionally, the typicality of the images used in the print ad stimuli were measured as part of experiment 4 (see the main text for details) and the typicality of the images in the nature videos were measured as part of follow-up experiment C (see web appendix section "Follow-Up Experiments B and C" for details).

Participants and Procedure

For the TV commercial post-test, 114 individuals from Amazon's Mechanical Turk participated ($M_{Age} = 40.16$, $SD_{Age} = 12.10$, 49% female). Mirroring the experimental paradigm and stimuli used in experiments 1 and 3, participants were randomly assigned to watch either the awe-eliciting, happiness-eliciting, or neutral 60-second commercial for an LCD television. Afterwards, participants answered a multi-item measure to assess their perceptions of the typicality or unexpectedness of seeing those images used in a commercial for an LCD television ("How surprising or unexpected was it for those images to be used in a commercial for an LCD television?", "How novel or atypical was it for those images to be used in a commercial for an LCD television?", "How surprised were you to see those images used in a commercial for an LCD television?", "How surprised were you to see those images used in a commercial for an LCD television?", 1 = not at all; 1 = not at all 1 =

For the picture slideshow post-test, 98 university students participated as part of an unrelated lab study in exchange for extra course credit ($M_{Age} = 23.58$, $SD_{Age} = 2.04$, 44% female). Mirroring the experimental paradigm and stimuli used in experiments A and 5, participants were randomly assigned to watch either the awe-eliciting or happiness-eliciting picture slideshow. Participants then answered a multi-item measure to assess their perceptions of the typicality or unexpectedness of seeing those images used in a picture slideshow ("How surprising or unexpected was it for those images to be used in a picture slideshow?", "How novel or atypical was it for those images to be used in a picture slideshow?", "How surprised were you to see those images used in a picture slideshow?", 1 = not at all; 1 = not at all; 1 = not at all; 1 = not at all.

Results and Discussion

For the TV commercial post-test, a one-way ANOVA (F(2, 111) = 2.38, p = .10) revealed that there were no significant differences in perceptions of image typicality between either participants who watched the awe-eliciting versus happiness-eliciting commercial (M_{Awe} = 4.16 vs. $M_{Happiness}$ = 4.41, p = .77), or participants who watched the awe-eliciting vs. neutral commercial (M_{Awe} = 4.16 vs. $M_{Neutral}$ = 3.66, p = .35). However, participants who watched the neutral commercial perceived the images as marginally less surprising than did participants who watched the happiness-eliciting commercial (p = .09). For the picture slideshow post-test, a one-way ANOVA revealed that participants in both conditions perceived the images used in the slideshows as equally surprising (F(1, 96) = .43, p = .66). Together, the results of these post-tests provide evidence that the effects observed in experiments 1, A, 3, and 5 were not inadvertently driven by differences in participants' perceptions of the atypicality or surprisingness of the images they saw in the LCD TV commercials or picture slideshows.

ORDER EFFECT ANALYSES: EXPERIMENTS 4, B, AND C

Experiments 4, B, and C provided a test of theory specificity and offered evidence against the alternative explanation that the experience of awe simply increases general motivation (i.e., motivation to exert effort in any domain) as opposed to our prediction that it increases the desire to engage in experiential creation specifically. Across these experiments, however, the logistics of the study designs were such that participants' motivation to engage in experiential creation was measured before measuring general motivation (i.e., task persistence in experiment 4 and desire to exercise in follow-up experiments B and C). Thus, we conducted supplementary analyses in order to assuage concerns about potential order effects. Namely, concerns that participants having first responded to our measure of experiential creation desire is what led to the nonsignificant task persistence and desire to exercise results (e.g., due to the possibility that our measures of experiential creation desire and our measures of general task persistence/desire to exercise might be capturing the same underlying construct or be inversely correlated).

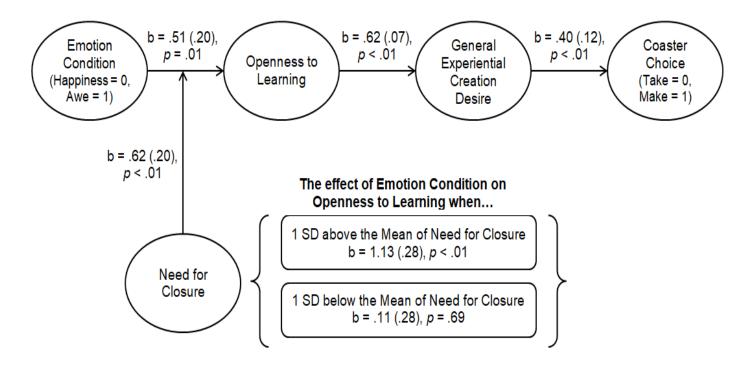
To test whether our measure of participants' specific motivation to engage in experiential creation and our measures of their general motivation (to persist in experiment 4 and to exercise in experiments B and C) are indeed distinct (and that participants' responses to our experiential creation desire measure were not inversely correlated with and influencing their responses to our general motivation measure), we first assessed the discriminant validity between the motivation constructs by estimating a two-factor model for each motivation measure and testing this model against a single-factor model with all items loading on the same factor (Bagozzi, Yi, and Phillips 1991). The results for experiments 4, B, and C revealed a significant chi-square difference test, indicating the superiority of the two-factor versus single-factor model (experiment 4:

 $\chi^2\Delta(1)=663.14$, p<.001; experiment B: $\chi^2\Delta(1)=511.52$, p<.001; experiment C: $\chi^2\Delta(1)=572.94$, p<.001), as well as smaller information criteria in favor of the two-factor model (experiment 4: BIC_{TwoFactor} = 15554 vs. BIC_{SingleFactor} = 16212; experiment B: BIC_{TwoFactor} = 9173 vs. BIC_{SingleFactor} = 9680; experiment C: BIC_{TwoFactor} = 15718 vs. BIC_{SingleFactor} = 16286). Second, following Fornell and Larcker (1981), discriminant validity was also supported when comparing the constructs' average variance extracted (AVE) with the squared correlation of the motivation measures across studies (experiment 4: AVE_{CreationMotivation} = .80, AVE_{GeneralMotivation} = .49; r^2 = .003; experiment B: AVE_{CreationMotivation} = .64, AVE_{ExerciseMotivation} = .53; r^2 = .002; experiment C: AVE_{CreationMotivation} = .69, AVE_{ExerciseMotivation} = .36; r^2 = .095). Third, we estimated the bootstrapped correlation coefficients (5,000 iterations) using R. All results showed that the 95% confidence interval did not include either 1 or -1 (experiment 4 95% CI = [-.18, .07]; experiment B 95% CI = [-.13, .22]; experiment C 95% CI = [.19, .43]), indicating the measures of experiential creation desire and general motivation are distinct (Bagozzi et al. 1991).

Taken together, these analyses serve to reduce concerns that the null task persistence (experiment 4) and desire to exercise (experiments B and C) results observed in our studies were due to ordering effects, as it was demonstrated that these measures of general motivation and our measure of participants' desire for experiential creation did indeed reflect distinct constructs and were not highly or inversely correlated. However, we do acknowledge that potential ordering effects could be more deeply examined in future research by either counter-balancing the sequence of motivation measures during experiments or by using experimental designs that measure one type of motivation exclusively (i.e., measuring specific vs. general motivation between subjects) to avoid any potential carry-over effects between measures.

MODERATED SERIAL MEDIATION FULL ILLUSTRATION: EXPERIMENT 5

The following illustration depicts the mediating effect of openness to learning on general creation desire and coaster choice as a function of dispositional need for closure:



Notes: Numbers in parentheses indicate standard errors. Indirect effect of experiencing awe (vs. happiness) on decision to make (vs. take) a coaster is b = .28 (CI: [.07, .60]) at one standard deviation above the mean of need for closure and b = -.03 (CI: [-.23, .16]) at one standard deviation below the mean of need for closure.

DISCRIMINANT VALIDITY TESTS EXPERIMENT 5

The results of our analyses in the main text (for experiment 5) revealed that need for closure did not have a significant main effect on openness to learning (F(1, 191) = .73, p = .39), general creation desires (F(1, 191) = .09, p = .97), or coaster choice (Wald = .10; p = .76). Moreover, in contrast to the openness to learning construct, need for closure did not have a

significant main effect on general creation desires (b = -.19, 95% CI: [-.47, .10]) or coaster choice (b = -.30, 95% CI: [-.77, .16]) in the moderated serial mediation analysis. These results offer support for the notion that need for closure (NFC) is not simply the inverse of openness to learning (i.e., that need for closure and openness to learning do not reflect the same underlying construct). However, to provide further support for the distinctness of these two constructs, we conducted a series of discriminant validity tests.

First, to assess the discriminant validity between the constructs, we estimated and tested a two-factor model for each construct against a single-factor model with all items loading on the same factor (Bagozzi, Yi, and Phillips 1991). The results revealed a significant chi-square difference test, indicating the superiority of the two-factor versus single-factor model ($\chi^2 \Delta(1)$) = 333.82, p < .001), and smaller information criteria in favor of the two-factor model (BIC_{TwoFactor} = 12265 vs. BIC_{SingleFactor} = 11936). Second, following Fornell and Larcker (1981), discriminant validity was also supported when comparing the constructs' average variance extracted (AVE) with the squared correlation of the two constructs (AVE_{OpennessLearning} = .59, AVE_{NFC} = .45; r^2 = .004). Third, we estimated the bootstrapped correlation coefficients (5,000 iterations) using the 'boot' package in R. The results revealed that the confidence interval did not include either 1 or -1 (95% CI = [-.15, .27]), indicating that the two constructs are indeed distinct (Bagozzi et al. 1991). Taken together, these analyses rule out the possibility that need for closure is simply the inverse of (or too highly correlated with) openness to learning and offer evidence that our measures of need for closure and openness to learning reflect distinct constructs.

FULL STATISTICS: EMOTION MANIPULATION CHECKS ACROSS STUDIES

Experiment 1								
Emotion		<u>Statistics</u>		Significance (<i>p</i> -values)		s)		
	Overall	Awe vs.	Awe vs.	Happy vs.	Overall	Awe vs.	Awe vs.	Happy vs.
	F	Happy t	Neutral t	Neutral t	F	<u>Happy</u>	Neutral	Neutral
Fear	1.66	1.50	15	-1.63	.19	.14	.88	.11
Sadness	.89	1.07	1.22	.17	.41	.29	.23	.87
Pride	.10	.44	.16	27	.91	.66	.88	.79
Awe	27.70	-7.05	-5.55	1.35	< .01	< .01	< .01	.18
Excitement	.61	64	-1.10	48	.54	.52	.27	.63
Peacefulness	.30	44	78	35	.74	.66	.44	.73
Happiness	7.34	3.63	.72	-2.84	< .01	< .01	.47	.01
Boredom	.23	.60	.01	58	.79	.55	.99	.57
	-			<u>-up Experime</u>	nt A	~! ! A!	, .	
Emotion _			Statistics (<u>(Fs)</u>			ce (p-value	<u>s)</u>
Fear			2.44			.1		
Sadness			.38			.5		
Pride			1.84			.1		
Awe			51.62			>. >		
Excitement			1.05		.31			
Peacefulness			1.99			.1		
Happiness			9.99 .55		< .01 .46			
Boredom				vnoriment 2		.4	0	
Emotion	Emotion Experiment 2 Statistics (Fs) Significance (p-values)							
Awe	$\frac{\text{Statistics (1's)}}{76.29} \qquad \frac{\text{Significance } (p\text{-values})}{<.01}$			<u>.s. j</u>				
TIWC				experiment 3_			<i>J</i> 1	
<u>Emotion</u>			Statistics (•		Significan	ce (<i>p</i> -value	(2)
Anger			.12	(<u>15)</u>			73	<u>5,7</u>
Fear			.03				86	
Sadness			.05				82	
Pride			.87				35	
Awe			26.85				.01	
Excitement			.95				33	
Peacefulness			1.33				25	
Happiness			7.85				01	
Boredom			.70		.41			
Dorcdom				experiment 4_		•	71	
<u>Emotion</u>		Sta	tistics_	Aperiment 4_		Significano	re (n-value	(2)
Linotion	Overall	Awe vs.	Awe vs.	Excited vs.	Overall	Awe vs.	Awe vs.	Excited vs.
	F	Excited t	Neutral t	Neutral t	F	Excited	Neutral	Neutral
Anger	1.92	.51	1.88	1.39	.15	.61	.06	.17
Fear	.36	.84	.46	39	.70	.40	.64	.70
Sadness	.62	28	.78	1.08	.54	.78	.43	.28
Awe	18.43	-5.35	-5.22	.16	< .01	<.01	< .01	.87
Peacefulness	.38	.82	.66	16	.69	.41	.51	.87
Excitement	7.16	2.46	-1.20	-3.72	< .01	.01	.23	< .01
	0							

Pride	.63	< .01	96	97	.53	1.00	.34	.33
Happiness	.27	.32	40	73	.77	.75	.69	.47
Boredom	2.42	.06	1.91	1.88	.09	.95	.06	.06
Anxiety	.47	.20	.91	.73	.63	.85	.36	.47
Love	.58	.94	.94	< .01	.56	.35	.35	1.00
Surprise	.96	1.31	.27	-1.05	.38	.19	.79	.29
Amusement	.74	.58	61	-1.21	.48	.56	.54	.23
Disgust	.67	.48	1.15	.68	.51	.63	.25	.50

Follow-Up Experiment B **Emotion Statistics** Significance (*p*-values) Overall Awe vs. Pride vs. Overall Pride vs. Awe vs. Awe vs. Awe vs. F_ Pride t Neutral t Neutral t F Pride Neutral **Neutral** .17 .84 Anger .59 .30 -.28 .56 .77 .78 Fear 1.07 -.20 1.15 1.36 .35 .84 .25 .18 1.81 .42 .07 Sadness 1.65 .80 1.03 .20 .31 Awe 35.97 -7.29-7.42-.20 < .01 < .01 < .01 .85 1.50 Peacefulness 1.66 1.63 -.13 .19 .11 .14 .89 **Excitement** 1.44 1.19 -.44 -1.64 .24 .24 .66 .10 21.17 4.76 -1.43 Pride -6.20< .01 < .01 .16 < .01 **Happiness** 2.26 1.39 -.69 -2.09.11 .17 .49 .04 Boredom .94 .04 1.20 1.17 .39 .97 .23 .24 1.49 1.60 .83 Anxiety 1.37 -.22 .23 .11 .17 Love .88 -1.18 -1.12.05 .42 .24 .26 .96 Surprise .74 1.08 .07 -1.01.48 .28 .95 .31 Amusement 1.97 .03 -1.70-1.75.14 .98 .09 .08 .40 1.36 .69 .08 Disgust 1.67 1.74 .19 .18

Follow-Up Experiment C **Emotion Statistics** Significance (*p*-values) Overall Overall Awe vs. Awe vs. Awe vs. Amuse vs. Awe vs. Amuse vs. F Amuse t Neutral t Neutral t F **Amuse** Neutral **Neutral** .16 .85 .95 Anger -.46 -.53 -.07 .65 .60 .09 Fear 1.46 -.80 .91 1.71 .23 .43 .37 .59 .35 .24 .84 .73 .56 .81 Sadness .18 24.34 -6.53 -5.411.15 < .01 < .01 < .01 .25 Awe .38 .71 .09 .36 .02 .91 .72 .98 Peacefulness Excitement 1.31 -.90 .71 1.61 .27 .37 .48 .11 Pride .19 -.48 .08 .57 .83 .63 .93 .57 **Happiness** .02 < .01 -.18 -.18 .98 1.00 .85 .85 Boredom -.56 -.48 .08 .83 .57 .93 .18 .63 Anxiety 1.03 1.42 .89 -.53 .36 .16 .37 .59 -.59 Love .94 .78 1.37 .39 .56 .44 .17 Surprise -.28-.44 .91 .87 .78 .66 .10 .16 -1.31 -4.11 < .01 Amusement 8.79 2.78 < .01 .01 .19 .49 .79 .24 -.69 -.26 .43 .79 .67 Disgust

	Experiment 5	
<u>Emotion</u>	Statistics (Fs)	Significance (<i>p</i> -values)
Anger	.11	.74
Fear	.03	.86
Sadness	.50	.48

Anxiety	.01	.94
Love	.27	.60
Happiness	23.24	< .01
Excitement	< .01	.98
Peacefulness	.03	.86
Awe	32.12	< .01
Pride	.33	.56
Boredom	.23	.63

STIMULI EXPERIMENTS A AND 5

	Happiness-eliciting slideshow	Awe-eliciting slideshow
1.	Five kittens	The Pinwheel Galaxy (Messier 101)
2.	Smiling baby lying on pillow	Waterfalls at Plitviče Lakes National Park, Croatia
3.	Family of four tubing at a waterpark	Mehrangarh Fort, India
4.	Mother lying beside daughter, both smiling and	Three climbers atop the Breithorn (Western Summit)
5.	resting their heads against one another Apple pie with scoop of vanilla ice cream	Alpine peak The Great Pyramid of Giza
		•
6.	Man in park holding large bunch of colorful balloons	Astronaut repairing International Space Station during spacewalk, planet Earth in background
7.	Bride smiling while being zipped into her	Fly Geyser, Nevada
7.	wedding gown	Try Geyser, Nevada
8.	Two bunnies sharing a leafy snack	Three camels in front of the Taj Mahal, India
9.	Baby lying on blanket	Goðafoss in the Bárðardalur district, Iceland
10.	Monarch butterfly on pink flower	Hikers approaching snowy mountain range
11.	Three smiling children on carnival ride	The Milky Way Galaxy
12.	Cheesecake with chocolate crust and topped with	The Red Fort, India
	caramel sauce	
13.	Little girl showing rocks to Golden Retriever at	Person atop giant desert sand dune
	the beach	
14.	Joyful children with arms raised in the air	Colorado River flowing through the Grand Canyon
15.	Baby lying on father's chest	View from inside ice cave, Iceland
16.	Elderly couple laughing while riding bikes	Sunrise over snowy mountain range
	together	
17.	Baby harp seal	Eagle Nebula (Messier 16)
18.	Six smiling children linking arms and standing in	Waterfall at Havasu Canyon, Arizona
	a circle	
19.	Smiling young couple sitting together, her arms	The Grand Canyon at sunset
•	wrapped around him	
20.	Courtyard garden with bench, wisteria, and other	Agra Fort, India
0.1	flowers in bloom.	M T
21.	Smiling baby crawling across hardwood floor	Mount Everest
22.	Three scoops of ice cream on a cone, topped with chocolate sauce and sprinkles	View of Earth from space
23.	Weimaraner dog with floppy ears	Hiker standing inside ice cave, Iceland

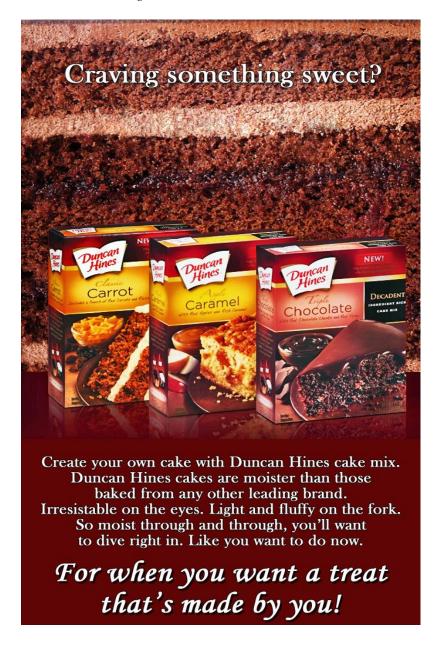
24.	Three young girls, smiling with their arms around one another's shoulders	Aurora Borealis in Svalbard, Norway
25.	Two babies in a bath tub with rubber duckies	Amer Fort, India
26.	Elderly woman with glasses smiling	Star-forming region (N90) in the Small Magellanic Cloud dwarf galaxy
27.	Adult elephant and baby elephant, holding trunks	View from atop Dragon Falls, Venezuela
28.	A family—a mother and father, three children, and dog—sitting together on the grass	Badwater Basin in Death Valley, California
29.	Two smiling girls holding three kittens	Hang Én, Vietnam
30.	Young father holding up his baby	Hiker atop summit of Mount Rainier, Washington
31.	Canada lynx kitten sitting on a tree branch	Pillar of gas and dust in Carina Nebula (NGC 3372)
32.	Two smiling children and young man on a waterslide	Belogradchik Fortress, Bulgaria
33.	Smiling elderly couple, standing forehead to forehead	Camel atop white sand dune, Socotra Island, Yemen
34.	Colorful wildflowers	Sunset at Point of the Arches, Olympic National Park, Washington
35.	Baby playing in fallen autumn leaves	Astronaut using a manned maneuvering unit, floating above Earth
36.	Smiling young girl posing with one hand on her cheek	Hang Son Đoòng, Vietnam
37.	Three Border Collie puppies	Aerial view of Owyhee River, Idaho
38.	Two scoops of chocolate ice cream topped with	Aurora Borealis over lake
	chocolate shavings	
39.	Mother sitting with toddler in her lap	Panoramic view of desert
40.	White rabbit with long ears standing up in grass	Fort Bourtange, Netherlands
41.	Family picnic at a park	The Matterhorn in the Alps, at the border of Italy and
		Switzerland
42.	Two newborn tiger cubs lying with their mother	Cave of the Crystals in Chihuahua, Mexico
43.	Baby grasping parents' fingers	Andromeda Galaxy (Messier 31)
44.	Two girls enjoying large slices of watermelon	Seljalandsfoss in the South Region, Iceland

STIMULI EXPERIMENT 3

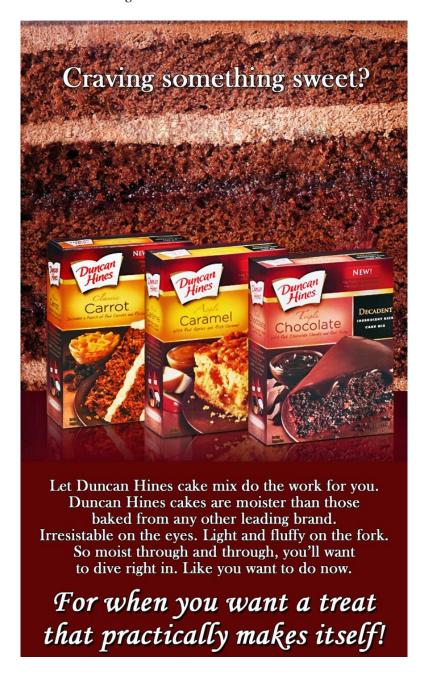
	Problem	Experiential creation solution	Non-experiential-creation solution
1.	If my car or vehicle was in need of simple maintenance or upkeep (e.g., it needed to be cleaned, the wiper blades or light bulbs needed to be replaced, or fluids needed to be checked and replenished), I would	Do it myself	Have someone else (e.g., a mechanic, car detailer, or car washer) do it for me
2.	If something in my home was in need of repair or improvement (e.g., walls need to be painted, a shower was clogged, there was a hole in the drywall, or my faucet or toilet was leaky), I would	Try to fix it myself	Have someone else (e.g., a handyman) try to fix it for me
3.	If I was put in charge of organizing an event (e.g., a party, wedding, or fundraiser), I would	Create any needed flyers, invitations, announcements, etc. myself	Have someone else create any needed flyers, invitations, announcements, etc.
4.	If an item of my clothing was ripped or damaged, I would	Try to repair it myself	Have someone else (e.g., a tailor or seamstress) try to repair it for me
5.	If I needed to host a dinner party, I would	Prepare and cook the food myself	Have someone else (e.g., a caterer or chef) prepare and cook the food

STIMULI EXPERIMENT 4

High Experiential Creation Framing



Low Experiential Creation Framing





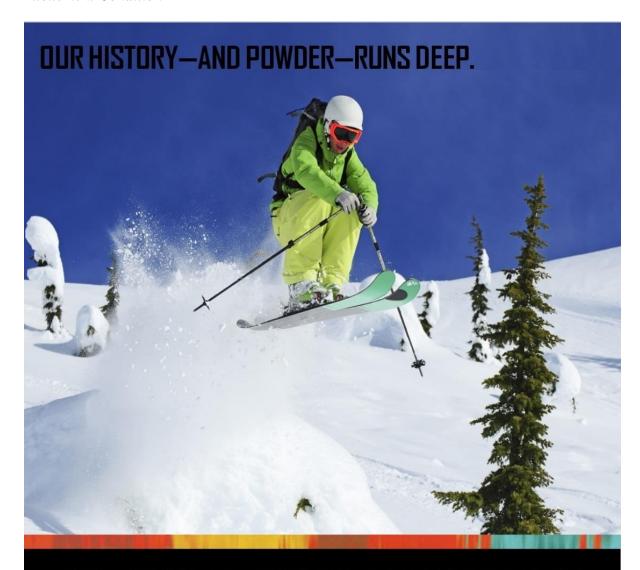
At Strykx Mountain, over 2,000 acres of terrain and 3,100 vertical feet of real snow, including the new Bergschrund Bowl, await—along with first-rate lodging, dining, shopping, and spas in our historic downtown and European-style village. High-speed lifts ensure you'll spend more time exploring our challenging steeps and over 60 named trails.

You'll be deep in powder before you know it.

With world-class snowfall, uncrowded slopes, and runs ranging from every level—from the challenging Glissade Bowl to the spacious cruising terrain in Timberline Park—Strykx Mountain offers the perfect place for an unmatched ski adventure. Come for a night, stay for the weekend, or plan your entire winter vacation right here at Strykx Mountain. We've got what you want.



Excitement Condition



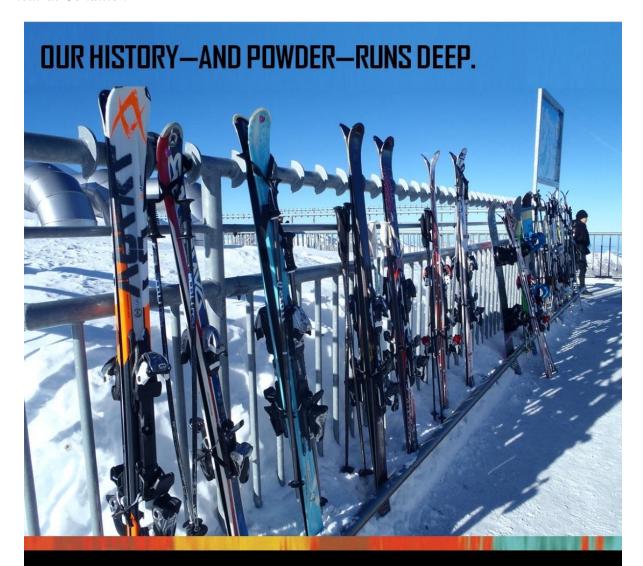
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Neutral Condition



At Strykx Mountain, over 2,000 acres of terrain and 3,100 vertical feet of real snow, including the new Bergschrund Bowl, await—along with first-rate lodging, dining, shopping, and spas in our historic downtown and European-style village. Highspeed lifts ensure you'll spend more time exploring our challenging steeps and over 60 named trails.

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