**Supplementary Material**

**Video Coding.** Coding criteria used for video review and frequency of each criterion used is described in Table 1S. Inter-rater reliability between the two coders was (92.6%).

**Table 1S.** *Coding criterion and frequency of used criterion in each condition.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Decision** | **Description** | **Control Condition Frequency** | **Affordances Condition Frequency** |
| **Complied** | Participant followed instructions and entertained themselves with their own thoughts, they did not engage with the environment, they did not stand up from their seat, nor did they fall asleep. Use this option if participants did not fit any of the following criteria | **91** | **91** |
| **Stand** | Participant stood up from the chair | **7** | **2** |
| **Sleep** | Participant fell asleep. Not only does participant need to close their eyes, their body posture needs to become visibly slumped; shoulders and head lean down. If participant rests head on table, regard this as sleeping. Exempt closed eyes only. | **1** | **4** |
| **Engage** | Participant interacted with the environment. (i.e., touched any of the objects in the room: Laptop, Jigsaw puzzle, Lego Car puzzle, Paper and Crayons.) | **N/A** | **15** |
| **Deviate** | Participant remained seated but deviated from original sitting position (no longer in front of the table and/or no longer visible on camera). | **7** | **5** |
| **Missing** | Video missing or partial. | **1** | **4** |

**Results**

***Gender differences*.** The following differences were analyzed on rule compliers only. Gender proportions did not significantly differ across conditions χ2 (1) < .001, *p* = 1.00. A Bonferroni corrected family-wise alpha of 0.5/3 = 0.017 was used for all comparisons. There were no differences in reported boredom between females (*Med* = 4) and males (*Med* = 3; *p* = .149, *Cliff’s D* = 0.15, *Cohen’s D* = 0.30). There were no differences in reported wanting levels between females (*Med* = 5) and males (*Med* = 4; *p* = .055, *Cliff’s D* = 0.20, *Cohen’s D* = 0.37). There were no differences in reported frustration levels between females (*Med* = 1) and males (*Med* = 1; *p* = .377, *Cliff’s D* = 0.09, *Cohen’s D* = 0.26).

***Rule Breakers*.** Out of the 107 participants in the empty room, 16 (15%) broke the rules, whereas, out of the 121 participants in the engaging room, 30 (25%) broke the rules. First, we tested whether there were more rule breakers in the engaging room than the empty room. We found that this was not the case (*χ2* (1) =2.84, *p* = 0.092). Given that we could not randomly assign participants to break rules, the number of rule breakers versus non-rule breakers is highly uneven, and none of our variables are normally distributed, we could not conduct an appropriate factorial analysis. Instead, we conducted a number of point-biserial correlations between rule breaking and our study variables, for each condition, (*Family-wise alpha* = 0.05/6 = .008). Neither in empty room nor in the affordances condition was there any difference in any of the study variables between those who broke rules or complied (p > .031).

***Correlational analyses***. Our analysis indicated that boredom was strongly correlated with wanting and frustration. Likewise, frustration was strongly correlated with wanting (Table S2). Using DeCoster’s (2005) method of comparing two dependent correlations, we observed that the correlation between boredom and wanting was significantly stronger than the correlation between boredom and frustration, *Z* = 4.91, *p* < .001. Boredom proneness was not correlated with any of the study variables.

**Table S2.** Correlation matrix for all study variables.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Frustration | Wanting | Boredom Proneness |
| Boredom | **0.53 (0.55)** | **0.77 (0.77)** | 0.06 (0.02) |
| Frustration |  | **0.51 (0.54)** | -0.06 (-0.09) |
| Wanting |  |  | 0.07 (0.09) |

Correlations of compliers only (full sample). All bolded correlations are significant at *p* < .001

***Boredom Proneness***. We tested whether addition of boredom proneness as a covariate and a moderator affected the relationship between our manipulation and all study variables. Boredom proneness did not significantly moderate the effect of condition on state reports of boredom (*p* = 0.580), furthermore condition remained a significant predictor of boredom following inclusion of boredom proneness and the boredom proneness by condition interaction term as covariates (*p* = .010). Boredom proneness did not significantly moderate the effect of condition on frustration (*p* = .918), condition continued to be a non-significant predictor of frustration following inclusion of boredom proneness and the boredom proneness by condition interaction term as covariates (*p* = .100). Boredom proneness did not significantly moderate the effect of condition on wanting (*p* = .864), condition continued to be a non-significant predictor of wanting following inclusion of condition and the boredom proneness by condition interaction term as covariates (*p* = .123).

***Mediation analyses***. As part of our exploratory analyses, we tested the possibility that the effect of our manipulation on wanting was mediated by boredom. Furthermore, given that frustration was correlated with boredom and wanting we opted to conduct additional exploratory analyses investigating whether wanting mediated the effect of boredom on frustration. The following analyses were performed on the rule-following subsample only. To investigate all study variables simultaneously a structural equation model was constructed as depicted in Figure S1 with the aid of lavaan R package (Rosseel, 2012). Here it is assumed that frustration is an outcome of failure to resolve boredom and failure to act on desires (wanting), thus frustration appears as the final variable within the model. Direct and indirect effects were estimated using bootstrapping (with bias-corrected and accelerated (BCa) interval estimation). 10,000 Monte Carlo simulations were used to estimate parameters. Standardized direct effects are reported in Figure S1. The effect of condition on wanting was mediated by boredom (β = 0.15, *p* = .008) and condition had no residual direct effect on wanting (β = 0.03, *p* = .505). The effect of boredom on frustration was mediated by wanting (β = 0.20, *p* = .004), however boredom itself continued to have a significant effect on frustration (β = 0.32, *p* = .004). The indirect path between condition and frustration involving both, boredom and wanting, was marginally significant (β = 0.04, *p* = .059).

|  |
| --- |
| β = 0.78, *p* < .001Frustrationβ = 0.32, *p* = .004WantingConditionBoredomβ = 0.26, *p* = .003β = 0.19, *p* = .008β = -0.03, *p* = .505β = 0.03, *p* = .667 |

**References**

DeCoster (2005) *Applied Linear Regression*. Retrieved from http://www.stat-help.com/notes.html (pp. 13-14)

Rosseel Y (2012). “lavaan: An R Package for Structural Equation Modeling.” Journal of Statistical Software, 48(2), 1–36. http://www.jstatsoft.org/v48/i02/.