

### **Addendum to LeBel & Campbell (in press, PSCI)**

(Meta-scientific implications cut from originally submitted manuscript as per editorial request)

Our replication findings also have important implications for several general meta-scientific issues worth mentioning given the current zeitgeist (Pashler & Wagenmakers, 2012). First, our findings demonstrate the crucial importance and need of executing independent direct replications of each others' findings to confirm the veracity of psychological phenomena and ensure that the psychological literature is self-correcting, one of the most important features of science (Merton, 1973). In this context, it cannot be overemphasized that such independent replications need to be *direct* replications whereby each and every procedural and methodological detail is as similar as possible to the original finding (LeBel & Peters, 2011; Schmidt, 2009).

Second, our findings imply that we need to change our ontological assumptions regarding the existence of psychological phenomenon (Borsboom, 2005). Namely, that it is fallacious to regard a psychological finding as true or reliable after only one (statistically significant) demonstration of it in one particular sample. Such a finding should be interpreted with considerable caution as preliminary evidence supporting the existence of a phenomenon which awaits independent confirmation. In the words of Karl Popper phenomena should only be considered "true" if they "can be regularly reproduced by anyone who carries out the appropriate experiment in the way prescribed" (Popper, 1959, p. 23).

Another important meta-scientific implication of our work is that to facilitate independent replications we strongly believe journals should require authors to include (in supplementary materials) all procedural and methodological details that would be required for an independent group of researchers to attempt to replicate the findings (i.e., the cover story, study title, all instructions, manipulations, measures, stimuli). In our case, fortunately the original author was very cooperative and gracious in providing such details, however, this should not have to be the case. We note that *Marketing Science* -- a prominent Business journal -- has already implemented a new editorial policy in this regard (effective April 2013) whereby authors must submit all procedural and methodological details at submission (Desai, 2013). In the interim, we recommend that researchers use infrastructure such as that provided at [OpenScienceFramework.org](http://OpenScienceFramework.org) wherein all project materials can easily be stored, shared, and archived to facilitate internal and independent replications.

### **References**

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