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Vosgerau et al. (2019): <https://doi.org/10.1002/jcpy.1142>
Lamberton (2019): <https://doi.org/10.1002/jcpy.1144>
Mochon & Schwartz (2019): <https://doi.org/10.1002/jcpy.1145>
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It Should Not Take a Funeral: An Introduction to the Dialogue on the Self-Control Construct

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New ideas must be promoted and old ones challenged. This is how science evolves and paradigms shift (Kuhn, 1962). Unfortunately, if this is left to happen organically—that is, via the competition of ideas—the evolution may be very slow. For new ideas to flourish, at the very extreme, it may actually take the death of a prominent scientist (Azoulay, Fons-Rosen, & Graff Zivin, 2019). Or, to quote Max Planck, “A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it.”

I believe that the field of consumer psychology is more open and accepting of new ideas than the life sciences field which Azoulay et al. studied (and, clearly, we do not want any funerals or early retirements). However, we still have a long way to go. Dialogues, such as this one, allow for re-examination of accepted theories, methods, and results, and permit novel ideas to transform entrenched ways of thinking. This is not the first dialogue of this nature—for an earlier example, see Gal and Rucker’s (2018) inquiry into the evidence for loss aversion. In the same spirit of revisiting and critically assessing established modes of research, this dialogue by Vosgerau, Scopelliti, and Huh (VSH) focuses on the self-control concept and the construct validity of its measure. VSH’s target article is then commented upon by Mochon and Schwartz, and by Lamberton.

Vosgerau, Scopelliti, and Huh criticize the often-used conceptualization of self-control as “abstinence

from hedonic consumption,” and its related measurement. Instead, based upon on self-control theories in economics and finance, they define self-control as “the sacrifice of immediate, short term gratification in service of more important, long term benefits.” Building up from this definition, they argue that “resolving the conflict in favor of immediate gratification will hence lead to regretting one’s choice,” and therefore, “the expectation that one will regret yielding to a temptation is hence a clear marker that the behavior involved represents a self-control failure.” They look at 125 articles across 12 journals of relevance to us and show that in nearly all (120 of them), the stimuli representing self-control failure were hedonic foods, 34.4% as chocolate cake, chips, and ice cream, also described in these articles as “unhealthy, tempting, indulgent, affectively superior, tasty, vice, or want foods.” In 52.2% of the studies in these articles, self-control was indicated through a choice between two foods, one of which was hedonic (choosing the hedonic food meant a loss of self-control), whereas it was indicated through the amount of hedonic food eaten in an ad libitum task (more suggested lower self-control). The implicit assumption was that choosing a hedonic food (or having more of a hedonic food) implied choosing a short-term taste goal over a long-term health goal and would result in anticipated regret. But, in none of these articles was anticipated regret measured, and only a handful measured regret at all (postdecision regret).

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VSH then present two studies of their own, conducted for this target article. In the first, they study whether people's understanding of "self-control failure" maps onto choosing hedonism over utilitarianism and/or to whether the decision violates a superordinate long-term goal, which creates anticipated regret. They conduct the second study using real choices in Korea and show that students who face a self-control conflict, in choosing to go to a movie versus receiving a pen, experience higher anticipated regret compared with those who do not face such a conflict (the self-control conflict is created when the movie is close in time to an upcoming examination).

VSH generously leave us with many open questions for future research, such as boundary conditions for anticipating regret and individual differences in anticipating regret (e.g., are good self-controllers more likely to anticipate regret—and therefore more likely to adhere to the superordinate goal?). Lambertson discusses these issues further in her commentary. She identifies three risks with VSH's measure of self-control through anticipated regret (remember that per VSH, higher self-control means choosing against anticipated regret)—one of these risks discusses how easier behavior (lower self-control) may, in fact, be associated with choosing against anticipated regret, for example, whether to confess to a partner after having an affair, knowing that this may result in losing the partner. I leave the reader to peruse Lambertson's commentary for details of the other two risks. More broadly, Lambertson suggests that VSH's definition of self-control through anticipated regret represents "consumption self-control," whereas, an alternate definition by Peirce (Hartshorne and Weiss, 1934) characterizes reflexive self-control, which operates independent of anticipated regret. Together, VSH's and Lambertson's discussions indicate that researchers should explicitly specify how they define self-control and use pretests for ensuring that it is indeed this definition they are capturing in their measures.

Mochon and Schwartz's (MS) commentary generalizes the argument of VSH. They make a case for the importance of establishing construct validity of measures used to capture specific concepts and provide two additional examples beyond the self-control example in VSH. MS's first example is of "choice overload." Unlike self-control in the target article, here, the independent variable, and not the dependent variable, is the operationalized construct. MS suggests that choice overload could be conceptualized through its underlying psychological construct (a negative state elicited by the choice context), but is

typically conceptualized by the number of options in the choice set. But, are the two the same, and does the latter always result in the former?

The second example is of "loss aversion," which has also garnered a different kind of dialogue in JCP (the Gal & Rucker, 2018 dialog discussed earlier), about whether the evidence for loss aversion is compelling. MS points out that the underlying concern is about whether empirical evidence to demonstrate a particular construct in one context can subsequently be used indiscriminately in other contexts to indicate the same construct. VSH responds to the two commentaries but focus their response on Lambertson's critique.

In addition to the points these authors raise, I want to raise another issue regarding construct validity in consumer psychology. There is a conundrum I have always had regarding the diffusion of measurement scales in our field, that is, how accepted they get—how used they are in further research. I find that scales seem to be equally well accepted, whether they are rigorously designed and proposed as stand-alone papers (let us call them rigorously designed scales), or designed in a relatively ad-hoc manner within a (generally) hypothetico-deductive paper (let us call these convenience scales). Rigorously designed scales would have tests of discriminant, convergent, and nomological validity, among other things. Examples of such scales are the Need For Touch scale (Peck & Childers, 2003), the Propensity To Plan scale (Lynch, Netemeyer, Spiller, & Zammit, 2009), and the GREEN scale (Haws, Winterich, & Naylor, 2014).

Convenience scales, on the other hand, are typically designed with little testing, because other scales to capture a construct do not exist, and the paper needs a scale to capture that construct. These scales can be simple 3 or 5 item scales. I will not add to the heat in this dialogue by giving examples of other authors here; with my coauthors' permission, I will give the example of my own perceived movement scale (Cian, Krishna, & Elder, 2014) as one such convenience scale. Cian, Elder, and I constructed this scale to measure whether our experiment stimuli represented low versus high perceived movement, which was the independent variable—in other words, the scale was used for a manipulation check. Perceived movement was a relatively new concept at that time, and we did not find other appropriate scales for it. We created a very simple two-item scale to measure perceived movement, and since then, our scale has been used in other research as well. However, we will openly acknowledge that it is not developed with the same rigor as the first set of scales.

Clearly, a more rigorously designed scale would have higher construct validity, which would also result in greater robustness of findings and likelihood of replication. Unfortunately, I think most of the new scales developed in consumer psychology work are convenience scales. [I acknowledge that a hypothetico-deductive paper, cannot at the same time, be a scale development paper since the latter is a full manuscript in itself; I just wish to point out here that the rigorously created scales and the convenience scales are treated with the same reverence in our field, when they should not.]

Between all these issues regarding the construct validity of concepts—the methods, measures, and stimuli used for our constructs—the dialogue leaves us with the dismaying conclusion that a vast number of studies in consumer psychology spread across many subfields may not be examining the construct they suggest they are, potentially undermining the validity of the research findings (and contributing to replication problems). The constructs examined in this dialogue are just examples, and the problem is more far-reaching. But, to revert to my initial thought, that is exactly what we should be doing—questioning our paradigms and practices, even if the result of this introspection is disturbing. That is the only way in which science can evolve.

But, on a more constructive note, the dialogue also suggests that there are certain things we can agree on. For instance, we should pay more attention to construct validity—defining what a construct that we use means to us, pretesting our measures to see whether they capture these constructs, even going back to “source authors” on established constructs to see if subsequent operationalizations actually fit, reading and writing papers with a focus on construct validity at least as much as on statistical precision, and understanding that the results of even a highly powered preregistered study are ambiguous if our construct validity was weak to begin with.

Moving on to the bigger question of entrenched ideas, we need to think about how entrenchment

occurs, and how we can cut through it. Perhaps, it occurs because the reviewers are part of the coauthor circle of a senior academic whose work the article challenges; but, they are even more likely to occur because reviewers are unwilling (or unable) to think beyond entrenched ideas, especially those of established researchers. Journals need to be more cognizant of these possibilities.

I have faith that we can make changes and that we do not need a funeral.

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