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Review in the doctoral assessment process of Marta Maj's thesis

Honored by the invitation from the Dean at the Jagiellonian University in Krakow, Dr. Hab. Professor Jacek Nowak to assess the current work, please find below my review of Marta Maj's doctoral thesis "*Facing hypocrisy: Cognitive dissonance and strategies of its reduction regarding value importance.*"

The thesis addresses the well-known and problematic phenomenon that peoples' behavior often does not match their attitudes. Choosing the highly topical mismatch between peoples' concern for the environment and their lack of behavioral change to meet this concern, termed hypocrisy, the thesis sets out to examine critical aspects of the attitude-behavior link using the framework of cognitive dissonance theory. The current work specifically aims at explicitly testing basic processes postulated to be involved in value-behavior inconsistencies. The thesis also examines the role of value importance both in reactions to inconsistencies (dissonance induction), and to the dissonance reduction process, and it explores how individual differences in action-orientation may influence dissonance resolution. A further focus of the current work was to investigate alternative responses to hypocrisy apart from behavioral change. Thus, the included studies test effects of hypocrisy on justifications of behavioral failures to behave in accord with the target attitude/value, trivialization of the target issue, and distractions away from it.

Using environmental concern as the target value, the thesis' hypotheses were tested in three studies using adapted versions of the induced hypocrisy paradigm, in which participants write a piece where they elaborate on the importance of the target of concern (here environment) and then are asked to

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report failures in behaving in accord with this concern (e.g. their trash production, eating meat, etc.). This method has the advantage of involving participants' existing attitudes and discrepancies, as compared for examples to paradigms using forced compliance of counter-attitudinal behavior. All three studies were conducted using a two-phase procedure, in which participants' concern for the target value (environment) was measured in phase 1, and the experimental manipulation implemented in phase 2.

The main interest of Study 1 was to examine how hypocrisy affected behavioral change tendencies, the mediating role of dissonance magnitude on this relation, and how value importance moderated hypocrisy effects. Studied were also other the potential means for dissonance reduction; justification, trivialization and distraction. Overall, the study showed weak effects of the experimental manipulation of hypocrisy on dissonance and behavioral change. This meant that the roles of mediated and moderated effects were difficult to establish. It seems possible that the lack of effects could be related to the sample being somewhat small in relation to the complex relations and effects studied.

In Study 2, the design was improved in several ways. Most importantly, the experimental manipulation used a more inclusive measure of behaviors to induce hypocrisy, in addition to a more sensible measure of dissonance. The task was also set in a more ecologically valid context, and included several alternative measures of behavioral change. Study 2 examined the same effects as Study 1, adding to these the role of action-orientation in dissonance reduction. This study demonstrated a reliable effect of hypocrisy on dissonance -measured as discomfort or as guilt- while it did not directly affect any of the behavioral change indices (i.e. dissonance reduction). However, dissonance did have a moderated effect on justification of behavioral failures through value (measured as a trait), and value moderated the effects of hypocrisy on dissonance measured as guilt. There was also a moderated effect of action-orientation on one of the measures of behavioral change (increased willingness to sign up for a newsletter) as an effect of dissonance measured as guilt.



Study 3 included the same hypocrisy induction manipulation and dissonance measure as Study 2. Main dependent variables were three measures of environmental motivation (individual, collective, general). A measure of demotivation was also used to account for alternative strategies to reduce dissonance. In this study, phase 2 was conducted online due to the emerging pandemic. The study showed no effects of hypocrisy on dissonance nor on any of the environmental motivation scales or on the demotivation measures. Value importance again moderated the influence of dissonance (i.e., discomfort) on the demotivation scales, and on one of these scales action-orientation also moderated dissonance effects.

General comments and summary

The thesis introduction is well written and thorough. It covers relevant perspectives on the attitude-behavior link, and gives an in-depth introduction to cognitive dissonance theory. It presents an overview of the methods typically used in research applying this framework to understand attitude-behavior relations, and presents relevant theory revisions as suggested in previous research. The models providing the theoretical bases for the suggested components and routes involved in value-behavior conflicts are simple, albeit straightforward. The hypotheses across the three studies are adequately based on theory and previous research, and clearly spelled out and presented. Across studies, stimulus materials were thoroughly pretested, and power analyses were conducted to determine required sample sizes to detect the main effects. As noted by the authors, the samples still did not meet the required sizes due to practical limitations. Overall then, the studies were well planned and executed. Hence, the fact that many of the critical hypothesized effects did not appear should not be attributable to lack of stringency in study designs or executions.

In the general discussion, the author makes a very interesting, critical reflection on the thesis findings and the lack thereof. In a thorough review into the details of the literature, the author finds and describes several discrepancies and ambiguities in extant research on cognitive dissonance, calling for reconsideration of some of the theory's general assumptions.



Moreover, the author connects the findings of the current thesis to other relevant theories, opening up for new, highly original perspectives on the phenomenon in question. In my view then, the current work meets the criteria expected for a PhD thesis.

Having said this, I have a few concerns that the author may want to address in the current work. First, a major aim of the thesis was to more thoroughly and dynamically address the relevant processes involved in value-behavior conflicts and their consequences, by measuring dissonance rather than merely looking at the behavioral changes resulting from it. The introduction would be strengthened with a more explicit presentation and discussion of previous studies in this area that have also measured dissonance, to clarify how the current work could add to extant knowledge, and how it may possibly modify the models presented.

Second, and more importantly, all three studies used very large amounts of statistical tests, which means a high risk of several tests being significant by chance. Bonferroni corrections should have been used to mitigate this risk. Moreover, although I appreciate that all analyses included in the thesis have been made public, the open science framework recommends that hypotheses and analysis plans are registered before data collection is conducted, or in any case before data has been scrutinized. This is an essential measure to prevent unsound practices of data mining (e.g. forking, harking) resulting in unreliable and irreproducible findings. The findings of the current thesis would have been much strengthened had such preregistrations been made, and I suggest that a note on this problem is included under limitations in the general discussion.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Torun Lindholm'.

Torun Lindholm, Professor of Psychology, Stockholm University