

A Call for Greater Caution in Drawing Conclusions From Individual Samples

A Comment on “A Test of the Measurement Validity of the Resistance to Change Scale in Russia and Ukraine”

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I greatly enjoyed reading Stewart, May, McCarthy, and Puffer’s article (20XX [this issue]) [PE: PLEASE INSERT PUBLICATION DATE.] on the validation of the Resistance to Change (RTC) Scale in Russia and Ukraine. Beyond the fact that it is always gratifying to see the application of one’s work to new contexts, Stewart et al. provide an insightful introduction into the change-related attributes of post-Soviet culture and offer an interesting analysis of the RTC Scale using two samples of employees. The authors extend the geographical and cultural borders within which the concept of dispositional resistance to change has been investigated and provide new support for the relevance of the concept and the overall validity of its measurement scale.

Support for the measurement validity of the RTC Scale in Stewart and colleagues’ study was limited to three of the four subscales, excluding Cognitive Rigidity. In conclusion, Stewart et al. question the generalizability of the Cognitive Rigidity factor with respect to employees in the former Soviet Union and propose a refinement of the Cognitive Rigidity subscale. Furthermore, they suggest that communist culture may have been responsible for respondents perceiving Cognitive Rigidity items as reflecting strength of character rather than a form of resistance. In addition, given the high intercorrelations among the three remaining RTC subscales, Stewart et al. propose to consider treating them as a single construct. Although Stewart and colleagues’ findings are important by further highlighting the unique nature of the cognitive rigidity dimension, I found the above conclusions to be premature and insufficiently substantiated. In what follows, I address each of these points.

First, as Stewart et al. note, the distinctiveness of the cognitive rigidity dimension was observed early on, beginning with the original set of studies reported in Oreg (2003). In 6 U.S. samples, the Cognitive Rigidity subscale exhibited correlations with other RTC subscales that were substantially lower than those found among the three remaining subscales. My colleagues and I also recently observed these weaker

correlations in a 7th U.S. sample as well as in another 16 non-U.S. samples (Oreg et al., 2008). Moreover, in 3 of these latter samples, the Cognitive Rigidity factor did not significantly load on a higher order RTC factor. Thus, Stewart and colleagues' finding joins several others that indicate the distinctiveness of the cognitive rigidity dimension.

Evidence for its distinctiveness, however, is complemented by evidence for its relevance to the overarching concept of dispositional resistance to change in both U.S. and non-U.S. samples. As acknowledged by Stewart et al., the Cognitive Rigidity factor significantly loaded on the higher order RTC factor in 14 of the 17 countries that we sampled in Oreg et al. (2008). Furthermore, despite its distinctiveness, the cognitive rigidity dimension has been shown to predict change-related orientations and behaviors, such as students' disinclination to make changes to their schedules (Oreg, 2003, Study 5), employees' reluctance to adopt new technology (Oreg, 2003, Study 6), and employees' occupational interests (Oreg, Nevo, Metzger, Leder, & Castro, in press). Whereas the first two findings were obtained with U.S. samples, the latter study is based on an Israeli sample. Thus, ample evidence exists to suggest that cognitive rigidity, despite being distinct from the remaining three RTC dimensions, taps a unique yet meaningful portion of variance in individuals' reactions to change, even outside the United States. Although Stewart and colleagues' finding is meaningful and certainly calls for additional investigation of the cognitive rigidity dimension, its emergence in two samples does not suffice for replacing items that have been found relevant and useful in an extensive body of research, in numerous samples, from four continents.

Second, Stewart and colleagues' suggestion that the view of cognitive rigidity in post-Soviet culture is "completely counter" (p. XXX) **[PE: PLEASE INSERT PAGE NUMBER.]** to how it is viewed in the West is also unsubstantiated. As Stewart et al. note, three of the respondents in their post hoc investigation reported perceptions of the Cognitive Rigidity items that correspond to the theoretical conceptualization of the construct, namely, as a form of conservatism. The remaining three perceived the items as tapping individuals' strength of character. Such a framing of cognitive rigidity is indeed divergent from my original conceptualization of the dimension, yet it is not unique, as Stewart et al. suggest, to the post-Soviet culture.

As indicated in Oreg et al. (2008), cognitive rigidity did not load significantly on a higher order RTC factor in 3 of the 17 countries sampled: Greece, Slovakia, and the United Kingdom. Explaining the divergence of cognitive rigidity in these countries, and the overall distinctiveness of the subscale, we argued that alongside its focus on conservatism, cognitive rigidity may also reflect "strong personal convictions and a form of stubbornness that are typically associated with higher levels of self-confidence" (Oreg et al., 2008, p. 943). The qualitative responses obtained by Stewart et al. correspond to this notion. I suggest that the conservatism and closed-mindedness that the Cognitive Rigidity subscale was designed to tap will, by definition, also tap factors such as self-confidence and strength of character. There is no

reason why this combination would be unique to the post-Soviet culture, or to any other particular culture; rather, it is a basic attribute of this personality dimension.

The question remains as to when and why the distinctiveness of cognitive rigidity reaches the degree that it no longer belongs to the overarching dispositional resistance to change construct. To date, this has occurred in five individual samples from a diverse set of countries (Greece, Slovakia, the United Kingdom, Russia, and Ukraine), without a clear common denominator. Further qualitative investigations, such as that conducted by Stewart et al., in multiple national samples may ultimately provide the insights we seek on this matter. Beyond questions about the cognitive rigidity items, however, such qualitative investigations should also examine responses to the other subscale items so that perceptions of cognitive rigidity can be compared with those of the other RTC dimensions.

Last, throughout my investigations of dispositional resistance to change, relatively high intercorrelations have been obtained among the first three RTC subscales—Routine Seeking, Emotional Reaction, and Short-Term Focus—with particularly strong correlations between the latter two. Given that such correlations call into question the meaningfulness of distinguishing between subscales, alternative measurement models were considered, the most prominent of which has been a three-factor model, with factors for Routine Seeking, Cognitive Rigidity, and an affect-related factor formed by merging the Emotional Reaction and Short-Term Focus factors. In both Oreg (2003) and 16 of the 17 samples in Oreg et al. (2008), the original four-factor model proved superior to the alternative three-factor model. Furthermore, studies of dispositional resistance to change with external variables have consistently demonstrated differential relationships for the four subscales (Oreg, 2003, 2006; Oreg et al., in press). Thus, Stewart and colleagues' suggestion that "research might examine the merits of treating the three remaining subscales as a single RTC construct" (p. XXX) **[PE: PLEASE INSERT PAGE NUMBER.]** has already been considered, and the conclusion was that the three remaining subscales should *not* be treated as a single construct. Certainly, this does not preclude calculating an overarching RTC construct when it is the overall orientation toward change that is of interest.

In sum, Stewart et al. provide us with a valuable extension of the RTC Scale's cross-national validation, using two samples from a new geographical region and cultural setting. Their findings highlight earlier questions about the cognitive rigidity dimension that remain to be more conclusively answered. Rather than emerging in any individual study, such answers are more likely to materialize gradually, as new data, from multiple samples, accumulates.

References

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