



# Appraisal as a unifying theory of response shift: continuing the conversation

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The commentary paper by Rapkin and Schwartz (R&S) is about “IT” [1]. Specifically, what is IT in the context of response shift? And can “appraisal” be a unifying approach to IT? In order to have a good representation of IT, one must also have a good representation of what is not IT. The discussion of the response shift IT is reminiscent of the discussion on frailty, difficult to define, but “I know it when I see it” [2]. Most definitions of constructs measured by patient-reported outcomes (PROs) are clear about what is IT. However, when it comes to measuring IT, items sometimes creep in that cause IT, predict IT, modify IT, or are a consequence of IT, but in fact are not IT. In this commentary, I raise the questions as to whether appraisal is IT (response shift), a method of measuring IT, or a method of explaining IT. If appraisal is IT, then response shifts are changes in the cognitive processes that are used to arrive at a rating on a PRO. If appraisal is a measure of IT, then appraisal would be like the then-test, not IT but a measure of IT, although with fewer limitations than the then-test. If appraisal is a method of explaining IT then in a regression model of IT, appraisal would explain an important amount of variance in IT. R&S consider that appraisal is a way of operationalizing IT encompassing both measurement and explanation of IT, but not IT.

R&S make very important points in aid of advancing quality-of-life research through proposing appraisal as a

unifying theory of response shift. From my perspective, I chose three intriguing concepts. They challenge the traditional response shift framework of reconceptualization, reprioritization, and recalibration as requiring changes, conscious or not, to have occurred in “appraisal parameters” that affect conceptualization, priorities, and calibrations. They underline that response shift is about individual cognitive change that is “uncovered” by the appraisal process. They have also transformed the field by introducing the method of appraisal, a method to assess the value judgments a person makes when responding to queries about health states.

## Re-, Re-, Re-

R&S postulate that for the traditional response shift framework to be valid, the individual is required to think about his or her response to a PRO question one way at time one and another way at time two. An alternate hypothesis is that people respond cross sectionally to PRO questions without thinking back to what was said previously and re-responding, as in a subconscious then-test. The person likely responded “in the moment” twice, time one and time two. Researchers may label the differences in the two responses as indicating a true change or a change from a response shift based on other knowledge about the person, the health condition, or the transition he or she is experiencing. When queried directly about these thought processes using the appraisal method, people are very likely to identify, retrospectively, one or more processes that formed their responses. Based on prompting, they may even wish to change one or more responses if offered the chance. I have absolutely no doubt that appraisal is an important process and if used during administration of PRO measures would increase the accuracy of the information obtained and would provide information as to why the response changed. I am convinced that appraisal is crucial in explaining IT and so far it is the most

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robust way of detecting IT. However, there are other methods of detecting IT such as using an individualized measure which is not burdensome to the respondent. Work from our team on RS using the Patient-Generated Index found that people did reconceptualize quality of life over time likely through a process of cognitive homeostasis [3]. Appraisal would be a way of directly querying why this reconceptualization occurred as this information may be helpful in designing interventions to promote a positive response shift.

## Response shift is an individual not a group phenomenon

R&S emphasize that response shift is about individual cognitive change. Yet the field is dominated by statistical methods that identify response shift at the group level. It strikes me that using statistical methods to deal with individual's unique voyage in experiencing health transitions seems a bit off the mark and the appraisal method would bridge the gap between methods. Information on the appraisal parameters could be incorporated into longitudinal statistical models as time-dependent co-variables to provide explanatory potential of longitudinal change.

R&S indicate that the point of response shift research is to understand why people respond differently to similar changes in health state. Is understanding sufficient? I would suggest that a better reason for response shift research is to uncover how to intervene to avoid negative and foster positive response shift. In many fields where PROs are pivotal in identifying health change or recovery, the aim is to induce a response shift. So understanding what explained the phenomenon as to why someone rates quality of life, for example, higher than expected should be directed toward using the information to modify interventions to produce this response in others.

In the field of rehabilitation, this phenomenon has been called transformative learning [4]. In health conditions where residual deficits are likely to remain no matter what, therapists intervene to transform the person's thought processes toward different ways of thinking about his or her disability; to focus on different ways of doing things, can do rather than reflecting on the can't do. Appraisal would be a very good method of identifying these factors. In using the PGI, it was clear that when people dropped areas their rating of QOL improved, when people added areas, the QOL deteriorated. Information on the appraisal parameters could help in identifying how to support people in refocusing life areas to optimize their current situation.

## Appraisal

In the original appraisal method, people were asked to consider their responses to PRO items with respect to different frames of reference, life's goals and concerns, reference groups for comparison, strategies used to decide on a response, and salient life experiences. These considerations explain ratings on PRO items. From another perspective, data on how these and other factors contributing to change in how someone might conceptualize, prioritize, or calibrate responses could also predict if someone is likely to make these changes. The same factors used after the fact, to appraise the response, could also be used prior to the fact to identify a person's propensity to make a response shift. This information would be very useful to modify treatment approaches to avoid a negative shift. The information could also be used in the research context as a variable for a priori stratification for analyzing responses, rather than an a posteriori factor.

## Conclusion

RS is reconceptualization, reprioritization, and recalibration of a construct in response to a catalyst. That this shift can be explained by the appraisal factors and can also be predicted by many of these same factors is a way forward and should lead to a valuable shift away response shift as a problem to a way of measuring and explaining response shift. By all means, let's continue to appraise, but let's also continue to use all the methods available to us as "one size" will never fit all situations.

## Compliance with ethical standards

**Conflict of interest** The author has no conflicts of interest to declare.

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