TRANSLATED ATTRIBUTES AS A CHOICE ARCHITECTURE TOOL: TRICK AND TREAT

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SUMMARY

Choices are never presented in a vacuum: rather, alternative choice options are always presented within a context. Importantly, in many cases the context – the "choice architecture" – reflects the meta-decisions made by the designer of the context – the "choice architect" (Johnson et al., 2012; Thaler & Sunstein, 2008). A key principle associated with the choice architecture metaphor is that there is no neutral choice context and therefore those responsible for framing decisions will influence choices in all cases. Motivated by this belief, scientists and policy-makers have become increasingly interested in learning how to best arrange the choice architecture in order to help mitigate the threat of various social dilemmas, most recently the threat of climate change (Newell & Pitman, 2010; Weber & Stern, 2011).

Energy labels, and in many cases the standards that accompany the labels, are often considered to be the best available tools for governments to manage energy-efficiency policies and climate-change-mitigation programs (Gillingham, Newell, & Palmer, 2009; Stern et al., 1987; Wiel & McMahon, 2003). Given that the consumption of fossil fuels is a major contributor of greenhouse gas emissions, one natural target of choice architecture intervention are vehicle choices via fuel economy label design.

One important feature of the fuel economy label is the choice of metric or metrics to include. A common feature of many consumer labels, including fuel economy labels, has been the presentation of highly related metrics. For example, the US fuel economy label, redesigned by the U.S. Environmental Protection Agency (EPA) in 2012, includes three metrics that are all different expressions of fuel economy: gallons per 100 miles, estimated annual fuel cost, and greenhouse gas rating expressed on a scale of one to ten. Interestingly, these three metrics are perfectly correlated – they are different *translations* of fuel economy. We investigated how the presentation of multiple translated attributes could change consumer's preferences.

The consumer choice literature has converged on the conclusion that choices are inherently constructive, that consumers often do not have well-defined existing preferences, and that consumers construct their preferences using a variety of strategies contingent on task demands

(Payne, Bettman & Johnson, 1988). One non-compensatory strategy that boundedly rational consumers may adopt is a simple counting heuristic in which the decision-maker simply counts up the number of attributes on which one alternative outperforms the others and selects the option with the highest score. Counting heuristics favor the option that is better on more attributes. We therefore hypothesized that the presentation of multiple translations of a global dimension (e.g., fuel economy) would shift consumers' preferences towards the option that was better on the majority of the presented attributes (i.e., the translated attributes effect).

Another key feature of translated attributes is the fact that they may highlight different characteristics of a global dimension. Adding a specific translation might therefore increase the accessibility of the dimension they describe in memory as well as its perceived importance (Shah & Oppenheimer, 2009). Similarly, translated attributes can remind individuals of additional goals they may have overlooked but nonetheless care about. We hypothesized that the translated attributes effect would be moderated by the translated attribute's congruence with the consumer's goals: specifically, those with pro-environmental values to more often select the efficient option but only when one translation was environmental (i.e., greenhouse gas rating).

We observed that the presentation of multiple translated attributes did indeed shift preferences. Specifically, we found that the weight placed on a global dimension (e.g., fuel efficiency) tended to increase when it was translated into multiple attributes (e.g., annual fuel cost, GPM, GHG rating). Put simply, more fuel-efficient vehicles were selected when more translated fuel efficiency attributes were presented, whereas cheaper vehicles were selected when more translated price attributes were presented. We also found that participants' likelihood of selecting the fuel-efficient option was affected by their pro-environmental attitudes but only when the translated fuel-efficiency attributes included the greenhouse gas rating.

These results are best captured by two concurrent choice mechanisms: counting and goal activation. One the one hand, the basic translated attribute effect can be explained by the application of a counting strategy according to which people simply choose the option that is preferred on most of the available metrics (the "trick"). On the other hand, the moderating role of personal environmental values is in line with a goal activation account, according to which different translations highlight different aspects of fuel-efficiency and choices can be further influenced when there is a match between the translation and individual goals (the "treat"). Thus, in comparison with the counting heuristic, goal activation has much higher specificity.

In summary, we have proposed the novel concept of translated attributes – related attributes derived from a global dimension by simple mathematical transformation – as another pillar of the choice architecture framework. This tool will be useful for policy-makers and marketing managers alike as they strive to effectively communicate with consumers to guide informed consumer choices.

References available on request.

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