

# Perspectives on Parsimony: How Long Is the Coast of England? A Reply to Park and MacInnis; Schwarz; Petty; and Lynch

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q1 **P**ark and MacInnis (2006, in this issue) provide the always sound advice to examine the boundaries of the focal construct, in this case attitudes. They wonder whether attitudes are capable of predicting differences in levels of personal investment and commitment to resulting behavior, and they question whether attitude dimensions such as strength and extremity, or additional dimensions and moderators, are rich enough to account for either the range of affect intensity reflected in the degree of emotional attachment or in behavioral commitment. They draw our attention to consumers' emotional attachment to brands (which they see as inherently linked to one's self-schema) and argue for a sharper delineation of the boundaries of the attitude construct. Their analysis suggests that emotional attachment is a separate relationship-based construct.

Several reactions seem in order. First, we do not suggest that attitude theory can explain emotional attachment and its consequences (see also Cohen [1990], Cohen and Areni [1991], and Pham et al. [2001] for consistent attempts to separate attitudinal and affective processes). In creating the Multiple Pathway Anchoring and Adjustment (MPAA) model, we draw on relevant cognitive and motivational theory and research to better understand both attitude formation and the conditions under which attitudes are likely to guide behavior. Attitudes arise out of a range of human experience extending from direct experience and exposure to internal-

ized information through social interaction and, yes, to "hot" emotion-laden responses. Within attitude theory it is important to examine how these separable bases influence both attitude formation and important behavioral consequences such as commitment and resistance to change. We agree with these authors that rigorous delineations of psychological constructs (as opposed to blurring distinctions among them) is essential, but we also believe that the formation, retrieval, and reliance on attitudes to guide behavior is so central to human functioning that incorporating broader cognitive and motivational processes (rather than compartmentalizing research domains) is mandatory (see Andrade and Cohen [2006] for a specific example of a model of emotional response across diverse domains). We hope the Park and MacInnis (2006, in this issue) call for greater attention to emotional attachment and behavioral commitment will spur this type of research.

Our friend Norbert Schwarz hopefully will forgive us if we point out that he has a strong and consistent attitude toward the issue of whether attitudes exist or are simply constructed out of available information. We question whether he goes through a detailed information integration process to marshal his arguments each time he is asked to evaluate the value of the attitude construct. This seems like such an inefficient process (even as quickly as Schwarz's mind operates) because of the huge amount of information to retrieve, evaluate, and integrate, and Schwarz is very quick to report his attitude toward attitudes! Accordingly, he seems prepared to accept the proposition that he stores summary information regarding the research evidence on this topic. So, if it is functional to have summary cognitive representations at higher levels of aggregation, why would it not also be functional to store and retrieve the "top-line" evaluative judgments formed at an earlier time, indeed, to give them precedence?

We would certainly agree that many inconsequential attitudes are merely temporary constructions. We also agree that evaluation is frequently driven by situational forces, notably in research designed to produce behavioral fluctuations using situational manipulations that are stronger than people's momentary preferences. While Schwarz has viewed temporary and unstable attitudes as evidence that attitudes do not deserve a privileged status, we see the

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\*Cohen and Reed's (2006, in this issue) MPAA model describes the attitude formation and reliance process. We thank the notable contributors for their insightful commentaries about our model and attitude theory and research more generally. Since we cannot respond to all the nuances outlined in each of the four separate articles, we primarily address some important differences in the commentators' views about parsimony. The spirit of our response is intended to convince readers that when it comes to representing psychological processes, there is no one right model. Rather, the construct mapping one uses and related judgments about parsimony should depend on explicit research goals. Joel B. Cohen is Distinguished Service Professor of Marketing and Anthropology at the University of Florida, Gainesville, FL 32611 (joel.cohen@cba.ufl.edu). Americus Reed II is the Arthur Anderson Term Assistant Professor of Marketing, Wharton School, University of Pennsylvania, 3730 Walnut Street, 764 Jon M. Huntsman Hall, Philadelphia, PA 19104-6371 (amreed@wharton.upenn.edu).

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virtually ubiquitous formation of attitudes (even under minimalist conditions) as evidence of people's penchant for forming and inherently relying on attitudes. Schwarz is impressed by the ability of construal models to generate evaluative judgments and by the parsimonious aspects of such building-block models in accounting for flexibility in responses. But parsimony at the knowledge-assembly level does not equate to parsimony in function when we consider the omnipresent role of attitudes in instantly directing attention and categorizing personally important objects (often in cluttered viewing environments), simplifying and facilitating decisions (including avoiding errors based on overweighting of momentarily salient factors), and, importantly, freeing cognitive resources in order to better and more quickly cope with new action demands (Fazio 2000). Typical research designs relied on to study judgment and choice do not incorporate many of the repetitively experienced factors that people cope with on a daily basis and for which having attitudes are particularly likely to be adaptive.

Schwarz also thinks we may be "reintroducing attitudes in the form of previously constructed judgments . . . into later construction processes" (Schwarz 2006, in this issue, ●●), and he regards our representational sufficiency/functional sufficiency treatment of attitude information as directly comparable to how other types of information are converted into some judgment or choice. He is correct. Though that leads him to further doubt the rationale for privileging attitudes as a special entity, we view the same comparability as a strength and believe there is much to be gained by better integrating attitude theory into cognitive science. Doing that, in our opinion, does not require the abandonment of attitudes as a separate psychological construct.

Petty's commentary is rich in detail, as befits one who has engaged in a lifetime of research to better understand attitudes. He makes the very useful point that attitude validity checking can occur not only on line (as we describe in our discussion of representational sufficiency) but can also result from direct retrieval of validity tags (Petty 2006, in this issue). We agree that a considerable amount of further research is needed to determine how representational sufficiency or attitude validation occurs in different circumstances (probably depending in large part on personal relevance; motivations for accuracy, closure, and confirmation; and opportunity and ability to process and consider information), and we believe this is a particularly fruitful research topic. In fact, there are likely to be significant implications for attitude stability/resistance to change and attitude change, depending on whether doubt can be raised about the representational sufficiency or validity of a person's attitudes. This type of challenge to existing attitudes is likely to be important in unfreezing them so that new information can receive appropriate consideration (see McGuire [1962, 1964] for an early attempt to examine such mechanisms) in the formation and retrieval process described by MPAA.

The production of attitude-consistent thoughts, as well as

one's subjective belief that an attitude is widely held and that support for it is easy to bring to mind, are likely to be key aspects of one's confidence in the representational sufficiency and validity of already formed attitudes. These factors, then, should contribute strongly to attitude stability (vs. instability) and resistance to change, as well as increasing the likelihood that such attitudes will be relied on to guide behavior (Albarracín and McNatt 2005; Killelea and Johnson 1998). Research has also shown that the subjective assessment of support for an attitude can be altered simply by asking people to recall more "reasons" than are readily accessible (Schwarz et al. 1991). Note, however, that in our model, representational sufficiency (or some combination of accessibility, attitude strength, confidence, and validity) is likely to be a necessary but not a sufficient condition for attitudes to guide behavior. That is, except for low action threshold behaviors (where action follows almost directly from some initial positive response—Dijksterhuis et al. 2005; Pham et al. 2001) or when outcomes are intentionally sufficient attitudes. In our model a functional sufficiency assessment process plays that role.

As Lynch (2006, in this issue) aptly illustrates, the accessibility-diagnosticsity (A–D) framework beautifully integrates two classic ideas with a long and successful history in psychology. The first is differential accessibility, and the second is differential relevance for a designated consequence. So, anything that makes an input more accessible relative to other inputs and makes it more applicable to a decision or action than other inputs increases one's reliance on that input. The strength of this approach is its applicability to any informational input or any manipulation that affects memory, retrievability, or relevance.

We do not believe that diagnosticsity adequately captures our attempt to examine the details of the attitude-reliance process. The MPAA model describes a process in which accessible attitudes are subject to two specific sequential assessments. The first, representational sufficiency (RS), can be metacognitive with little or no conscious attention or, with higher levels of motivation and opportunity, it can be an attempt to see if the attitude feels right (i.e., seems to be my own reasonably well-formed judgment). If RS assessment fails, more effort goes first into retrieval and then into attitude generation. Once RS is achieved, attention shifts to functional sufficiency (FS). We define FS essentially the same way Lynch defines diagnosticsity, because the focus is on the perceived appropriateness of relying on that attitude to bring about a desired result. For many actions FS is instantaneous after RS because situational factors can be minor, and so we do what we like to do or what we typically do. At other times, context is critical (e.g., I like the restaurant for a casual meal but not for a special occasion; or I like to tip generously, but the service was terrible tonight). If the FS assessment fails, since an RS attitude is present, there is something to anchor on, and information is brought to bear to modify the attitude so that the person can then feel comfortable relying on it. Separating these sequential

assessment stages (something not done in the A–D framework) provides the opportunity to study how these more delineated processes operate.

In Lynch's A–D formulation everything that might impair the ability of an input to predict or influence an output is equally acceptable as an operationalization of diagnosticity, and each can be viewed as a cause or component of diagnosticity. In an expanded version of this idea, then, little *d*'s could represent each possible manipulation of a factor that could affect the differential relevance of an input (such as an attitude), and there could be a cumulative big D. To this point in time, the A–D approach does not specify either what the core components of differential relevance (i.e., the little *d*'s) are, whether these occur in any set sequence, or how assessments of each might affect attitude formation. So, in A–D there is no systematic way to predict, a priori, opposing or antagonistic effects of factors such as increasing amounts of thought or elaboration of some evaluative input (such as a persuasive message or an experienced mood). In the MPAA model, as thought increases, RS should be affected in different ways from FS, since RS often relies on a subjective feeling and FS incorporates awareness of behaviorally relevant situational factors.

In sum, the title of our response to the four essays reprises the question asked by Benoit Mandelbrot, a pioneer and leading scholar in fractional geometry (Gleick 1987, 83–118). It turns out that there is no correct answer. Much depends on the length of the ruler to be used to arrive at the answer. Someone using a yardstick rather than something smaller is apparently not interested in the twists and turns that occur in smaller intervals and so fails to measure that distance. Someone mapping the coastline from space is clearly not interested in capturing many details at all and so ends up with a vastly smaller number. When it comes to representing psychological processes, the construct-mapping one uses, and related judgments about parsimony, should depend on explicit research goals.

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