Reply to Comments on the Nature and Uses of Expectancy-Value Models in Consumer Attitude Research

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My reply to the comments of Cohen, Fishbein, and Ahrola is lengthy because I substantially disagree with a number of points and feel that their comments are out of focus and to make findings in JMR.

Here is a summary of my views:

1. In their enthusiasm to relate their theory to Fishbein's, the authors have misunderstood and misinterpreted Rosenberg and the subsequent functional research on the concept of valued states.
2. Contrary to assertions made by Fishbein, I don't think the Fishbein and Rosenberg models are equivalent or even similar in structure. The illusion of an equivalent structure comes from the weighted formula used by both to obtain an index of objective structure.
3. There is no Bass-Taylor-Schiff theory of attitude. However, a comprehensive theory of attitude-behavior relationship developed by Schiff some time ago is known to all three authors.
4. It is indeed true to assert superiority of our model over other models when the authors (1) select different settings (e.g., laboratory experiment vs. field survey), (2) employ different statistical and methodological procedures (e.g., regression, multiple regression, multiple correlation).

YOUR VIEW OF ROSENBERG VS. MY VIEW OF ROSENBERG

The basic contention of Cohen, Fishbein, and Ahrola is that the operational measures of perceived instrumentality and value importance in the Perdue study are not equivalent or even comparable to Rosenberg's theory. It is unfortunate that the authors did not carry out a study to prove their point; even if it is based on a different interpretation it is not enough. Let me describe why I still believe measures utilized in Perdue data are adequate measures of Rosenberg's perceived instrumentality and value importance.

Fortunately, Rosenberg has restated his theory and findings in several places about with varying degrees of clarity [7, 8, 9], making it easier to assess what he means by value importance and perceived instrumentality. I find the following quote a clear statement of his theory:

"When a person has a relatively stable tendency to respond to a given object with either positive or negative affect, such a tendency is accompanied by a cognitive structure made up of beliefs about potentiality of that object for attaining or blocking the realization of valued states. Thus strong and stable positive affect toward a given object should be associated with beliefs that it leads to the attainment of a number of important values. Similarly, moderate positive or negative affect should be associated with beliefs that the object tends to block the attainment of important values. Strong negative affect should be associated with beliefs that the object tends to block the attainment of very few important values or, if important values, then with less confidence in the relationship between these values and the attitude object" [7, p. 17-4].

"A similar study was conducted by the author in which the attitudinal effects of a large number of subjects were measured with regard to their separate social issues. One group of these same subjects took a test of cognitive structure requiring them to rate a group of values both for the degree of positive or negative towards each person and also for the extent to which each value was believed to be desired or desired through the influence of each of the two attitude objects, respectively" [7, p. 321].

It is hard for me to see from the above descriptions that a belief about the object attaining or blocking a valued state means the same thing as the probability of
improbability that the attitude object possesses a valued state. Similarly, more or less importance of a valued state does not mean the same thing as the extremity of that valued state. I think Cohen, Fishbein, and Ajzen are misinterpreting Rosenberg’s model to make it appear compatible with Fishbein’s model.

This misunderstanding seems more plausible after studying the historical background of Rosenberg’s theory. As a background to this theory and citing studies during the 1940s and 1950s, Rosenberg states: “Various scale writers have helped to sharpen this sort of approach by emphasizing the concept of value end by suggesting that the cognitive aspect of a person’s attitudes may consist largely of expectations about how the values are likely to be achieved in the agency of the attitude object. During the past ten years various empirical studies have appeared in which the individual’s subjective disposition toward an object was related to his beliefs about its value-assisting powers.” (p. 15, 16). A look at these studies [2, 12, 13] clearly indicates measurement of two aspects of the “strong” approach, namely intensity of importance of the value (more or less important) value) and the ability of the attitude object to attain those values. Nowhere in these earlier studies do I find value importance equated with evaluation of belief or perceived instrumentality equated with probability of the object possessing the value.

From Rosenberg’s descriptions I consider the following a realistic transition for consumer behavior: A consumer has positive or negative preference (affect) toward a brand; this preference (affect) is associated with his beliefs (attitudes) is the potential of satisfying (attaining) a set of criteria (values); these criteria (values) are likely to be more or less important to the consumer; and using positive preference toward a brand (positive affect) will be associated with a high degree of satisfaction (attainment) of more important values, while moderate preference will be associated with a high degree of satisfaction (attainment) of less important values. Based on this transition, let’s look at the Fishbein data.

Although I was not involved in the Fishbein study, I think his measure of how satisfactory the brand is for a given attribute is an adequate representation of perceived instrumentality. Similarly, one or two important of a value is adequately measured by asking a respondent to rate an attribute on an intensity scale. I agree that the reference to a ideal brand in this question probably confounds the measurement of value importance and is not appropriate to that extent. I also think the wording could have been improved in both questions. These points, however, seem to be minor compared to the assertion of Cohen, Fishbein, and Ajzen that “the instructions used to operationalize these two components were similar in Rosenberg’s research.”

We all know that the wording of the two questions are not identical to Rosenberg’s wording. Must they be identical? No psychometric scaling procedure is followed by Rosenberg, nor has he developed a psychological scale. Indeed, Rosenberg’s wording of perceived instrumental measure (a 1 category bipolar scale ranging from “the condition is completely attained” to “the condition is completely blocked”) and value importance measure (a 2 category bipolar scale ranging from “gives me maximum satisfaction” to “gives me maximum dissatisfaction”) would be identical and confusing in consumer behavior. Such a bipolar range simply doesn’t exist for well-established frequently purchased products, and I am not aware of even more “involved” issues such as “degrees should be allowed in white neighborhoods.” In a small survey both the wording and the width of scales will be problematic, whereas it can be minimized in personal interviews such as Rosenberg conducted. I have often wondered whether the mixed results from Rosenberg’s studies could be due to the wording of his scales and not simply to some flaw in his theory. In fact, Rosenberg wonders about this: “The present data leaves me an open question as to whether this is an artifact of the measurement or comparison employed or whether, on the other hand, ‘perceived instrumentality’ actually consists more variance in attitudinal affect than does ‘value importance.’” [1], p. 372.

**Fishbein is a reincarnated Rosenberg: True or False?**

Fishbein has asserted in earlier publications that Rosenberg’s model is the same or very similar to his own. Unfortunately, Fishbein is lacking in both the empirical evidence and logical distinction in making this assertion. Although it is tempting to consider the two models as equivalent because of common format for each, I believe there are some vital differences between the two models.

In an excellent paper, Fishbein [4, p. 259] distinguishes five types of beliefs about an object: (1) beliefs about the component parts of the object; (2) beliefs about the characteristics, qualities, or attributes of the object; (3) beliefs about the object’s relation to other objects or concepts; (4) beliefs about whether the object will lead to or block the attainment of various goals or “value states”; (5) beliefs about what should be done with respect to the object; and (6) beliefs about what the object should, or should not be allowed to do.

By definition Rosenberg’s model is limited to the fourth type of beliefs, while Fishbein’s model, though generalized to all beliefs, has been limited to the second type. This may not seem a major point to some readers, but there are several substantive implications. First, the functional (mechanistic) theorists have always insisted that only those beliefs related to valued states are the relevant determinants of effective states toward an object.
In fact, following the functional school of thought, I have examined attitudes-behavior relationships in consumer behavior studies that only beliefs related to the evaluation of a brand as a goal-object on a set of chosen criteria is relevant to attitude measurement for explaining and predicting brand choice behavior [10, 11].

Second, the first three types of beliefs in Fishbein's classification are descriptive beliefs and possess only the declarative meaning, since none of them are anchored to motives, goals, valued states, or goal-directed behavior. On the other hand, the last three types of beliefs are either normative or evaluative and possess the comparative meaning. Researchers of psychology and economics agree that comparative meaning by definition includes the evaluative judgment [9, 13, 1]. Thus, in Osgood's semantic differential theory, comparative meaning implies presence of the evaluative dimension in the semantic-differential scales. Refer to Howard and Sheth [5, p. 61-132] for further discussion on this point.

Third, the values utilized in most attitude research based on functional approach are, by definition, described either with evaluative adjectives (e.g., good-bad, attractive-unattractive, fair-unfair, favorably- unfavorably) or with words which have evaluative dimension in order to create valued states. Therefore, they inherently possess the comparative meaning, for example the valence in Rosenberg's study [7]: (a) sticking to a difficult task; (b) people strongly persuade; (c) having interesting work to do; (d) being good-looking; having attractive taste, body, or clothes; and (e) having steady income. Similarly, the values in consumer behavior should be deliberate testing, reasonable price, good source of prestige, or good food for everyday, rather than an attribute testing such as taste, price, protein content, etc.

The implication, then, is that the perceived instrumentality component in Rosenberg's model consists both of the components of Fishbein model (A and B, seals) and is based on beliefs related to attainment of valued states. In summary, Fishbein's two components are equivalent to Rosenberg's perceived instrumentality component. In addition, the functional theory is underlying Rosenberg's model should consider intensity of value in more or less important. I can currently engage in two major studies to test the above hypotheses.

HAS SMITH FATHERED YET ANOTHER THEORY?

There is no Bass-Talarczyk-Smith theory of attitude. If the study reported in JMR has implicitly led some people to believe in its existence, let me assure you that it is simply not true. Modesty compels me to deny that I have fathered yet another theory.

With respect to the JMR study, I was initially concerned in finding out whether perceived instrumentality is more or less important determinant of attitudinal affect in Rosenberg's model. This has serious implications in marketing as evidenced in the article.

CORRELATION COMPARISONS

Cohen, Fishbein, and Amodeo consider that a greater correlation with affect represents a better model. This would be a reasonable benchmark if various models were tested (a) under the same conditions, (b) for party match the same population area, and (c) on the same or at least similar sampling units. The authors use the Fishbein model as generally producing correlations of about .70. Most of Fishbein's studies were highly laboratory-controlled and simulated and dealt with issues in which subjects are either highly motivated or forcibly motivated by incentives. The sample sizes are typically not more than two to three hundred subjects with greater homogeneity among sampling units which are limited to college students.

In the Columbia Buyer Behavior Project, we used belief scales comparable to Rosenberg's perceived instrumentality component [11]. Below are correlations of beliefs with affect for three brands of instant breakfast. The study was a longitudinal study and belief-affect measures were obtained at three time-periods by telephone interviews.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Correlation of Beliefs with Affect</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Telephone Interview</td>
<td>0.75</td>
<td>132</td>
</tr>
<tr>
<td>Second Telephone Interview</td>
<td>0.67</td>
<td>123</td>
</tr>
<tr>
<td>Third Telephone Interview</td>
<td>0.51</td>
<td>112</td>
</tr>
</tbody>
</table>

Should I conclude from these findings that my model
A Reply to the Response to Bass, Talarzyk, and Sheth

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At first glance, it might appear that if you laid all of the people doing research on attitudes end-to-end, they would: (a) never reach a conclusion, and (b) all point in different directions. Fortunately, this is not the case. There is actually a considerable amount of agreement as to the basis, but the differences seem to come up in specific applications of the concepts.

In 1965 in the forward to Attitude Research [2], Edwin H. Schonbucher, then President of the American Marketing Association, stated:

"Attitude research has become a vital part of the marketing research picture due to the growing realization among businessmen of the decisive role attitudes play in the market place. Exploring man's abstract feelings is age-old, but today's innovations in this area have produced new scientific techniques to discover man's attitudes, and have developed new areas to apply the findings."

These words are even more true today. These past seven years have evidenced greater interest in attitudes by both researchers and practitioners, advances in the study of attitudes, and ever-widening applications of attitudes. The significance and importance of attitudes are focused in the role they play in recent models of consumer behavior and by the several workshops and conferences devoted to their exclusive study.

With this as a frame of reference, the comments by

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