

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

JAGDISH N. SHETH\*

My reply to the comments of Cohen, Fishbein, and Ahtola is lengthy because I substantially disagree with a number of points and feel their comments are extraneous to most findings in *JMR*.

Here is a summary of my views:

1. In their enthusiasm to relate other theories to Fishbein's, the authors have misunderstood and misinterpreted Rosenberg and the antecedent functional (means-end) school of thought based 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-sum formula used by both to obtain an index of cognitive structure.
3. There is no Bass-Talarzyk-Sheth theory of attitude. However, a comprehensive theory of attitude-behavior relationship developed by Sheth some time ago is known to all three authors.
4. It is indeed naive to assert superiority of one model over other models when the studies (1) reflected different settings (e.g., laboratory experiment vs. field survey), (2) involved different issues (e.g., Negroes should be allowed in white neighborhood, story about Mrs. Williams, brands of grocery products), and (3) utilized different statistical and methodological procedures (e.g., chi-squared, simple correlations, multiple correlations).

### YOUR VIEW OF ROSENBERG VS. MY VIEW OF ROSENBERG

The basic contention of Cohen, Fishbein, and Ahtola is that the operational measures of perceived instrumentality and value importances in the Purdue study are not equivalent or even comparable to Rosenberg's theory. It

\* Jagdish N. Sheth is a Professor of Business and Research Professor at the University of Illinois.

is unfortunate that the authors did not carry out a study to prove their point; mere assertion based on a different interpretation is not enough. Let me describe why I still believe measures utilized in Purdue data are adequate measures of Rosenberg's perceived instrumentality and value importance.

Fortunately, Rosenberg has reported his theory and findings in several places albeit 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 quotes 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 potentialities 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, while strong negative affect should be associated with beliefs that the object tends to block the attainment of important values. Similarly, moderate positive or negative affect should be associated with beliefs that relate the attitude object either to *less important* values or, if to important values, then with less confidence about the relationship between these values and the attitude object" [9, p. 17-8].

"A similar study was conducted by the author in which the attitudinal affects of a large number of subjects were measured with regard to two separate social issues. One month later 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 reward each represented and also for the extent to which each value was believed to be fostered or defeated through the influence of each of the two attitude objects, respectively" [8, 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 or

improbability that the attitude object possesses a valued state. Similarly, more or less importance of a valued state does not seem to mean the same thing as the evaluation of that valued state. I think Cohen, Fishbein, and Ahtola are misinterpreting Rosenberg's model to make it comparable to Fishbein's model.

This misinterpretation seems more plausible after studying the historical background of Rosenberg's theory. As a background to this theory and citing studies dating back to 1942, Rosenberg states: "various other writers have helped to sharpen this sort of approach by emphasizing the concept of *value* and by suggesting that the cognitive aspect of a person's attitude may consist largely of expectations about how his values are served through the agency of the attitude object. During the past fifteen years various empirical studies have appeared in which the individual's affective disposition toward an object was related to his beliefs about its value-attaining powers" [9, p. 16]. A look at these studies [2, 12, 13] clearly indicated measurement of two aspects of the "means-end" 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 translation for consumer behavior: A consumer has positive or negative preference (affect) toward a brand; this preference (affect) is associated with his beliefs (cognitive structure) about how well or how satisfactorily the brand is capable (object's potential) of satisfying (attaining) a set of choice criteria (values); these criteria (values) are likely to be more or less important to the consumer; and strong positive preference toward a brand (strong 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 translation, let's look at the Purdue data.

Although I was not involved in the Purdue study, I think its measure of how satisfactory the brand is for a given attribute is an adequate representation of perceived instrumentality. Similarly, more or less importance of a value is adequately measured by asking a respondent to rate an attribute on an intensity scale. I agree that the reference to an 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 Ahtola that "the measures used to operationalize these two components bear little resemblance to Rosenberg's concepts."

We all know that the wordings of the two questions

are not *identical* to Rosenberg's wordings. But must they be identical? No psychometric scaling procedure is followed by Rosenberg, nor has he developed a psychological scale. Indeed, Rosenberg's wordings of perceived instrumentality measure (an 11 category bipolar scale ranging from "the condition is completely attained" to "the condition is completely blocked") and value importance measure (a 21 category bipolar scale ranging from "gives me maximum satisfaction" to "gives me maximum dissatisfaction") would be impractical and confusing in consumer behavior. Such a bipolar range simply doesn't exist for well-established frequently purchased products, and I am not sure it exists even for more "involved" issues such as "Negroes should be allowed in white neighborhoods." In a mail 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 have been due to the wordings of his scales and not simply to some flaw in his theory. In fact, Rosenberg wonders about this: "The present data leaves it an open question as to whether this is an artifact of the measurements or computations employed or whether, on the other hand, 'perceived instrumentality' actually controls more variance in attitudinal affect than does 'value importance'" [7, 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 deductions in making this assertion. Although it is tempting to consider the two models as equivalent because of common formula format, I believe there are some vital differences between the two models.

In an excellent paper, Fishbein [4, p. 259] distinguishes six 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 with other objects or concepts; (4) beliefs about whether the object will lead to or block the attainment of various goals or "valued 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 generalizable 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 (means-end) theorists have always insisted that only those beliefs related to valued states are the relevant determinants of affective state toward an object.

In fact, following the functional school of thought, I have examined attitude-behavior relationship in consumer behavior stating that only beliefs related to the evaluation of a brand as a goal-object on a set of choice criteria is relevant in 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 denotative 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 connotative meaning. Researchers of psycholinguistics and concept formation agree that connotative meaning by definition includes the evaluative judgment [1, 3, 6]. Thus, in Osgood's semantic differential theory, connotative meaning implies presence of the evaluative dimension in the semantic-differential scales. Refer to Howard and Sheth [5, p. 61-62] for further discussion of 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, favorable-unfavorable) or with words which have evaluative dimension in order to create valued states. Therefore, they inherently possess the connotative meaning, for example the values in Rosenberg's study [7]: (a) sticking to a *difficult* task; (b) people *strongly patriotic*; (c) having *interesting* work to do; (d) being *good-looking*; having *attractive* face, body, or clothes; and (e) having steady income. Similarly, the values in consumer behavior should be *delicious* tasting, *reasonable* price, *good* source of protein, or *good* buy for money, rather than an attribute listing such as taste, price, protein source, etc.

The implication, then, is that the perceived instrumentality component in Rosenberg's model contains both the components of Fishbein model (A; and B; scales) and is based on beliefs related to attainment of valued states.

To summarize, Fishbein's two components are equivalent to Rosenberg's perceived instrumentality component. In addition, the functional theory underlying Rosenberg's model considers intensity of importance of values (more or less important). I am currently engaged in two major studies to test the above hypothesis.

#### HAS SHETH FATHERED YET ANOTHER THEORY?

There is no Bass-Falarczyk-Sheth 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 merely concerned in finding out whether perceived instrumentality is a more or less important determinant or correlate of attitudinal affect in Rosenberg's model. This has serious implications in marketing as stated in the article.

I am equally surprised that the three authors do not even mention a comprehensive theory of attitude-behavior relationship I developed in 1970 [11]. Not only are they all familiar with the theory, but the senior critic has heavily relied in his own research on my suggestion in that paper that beliefs should not be summed or aggregated prior to regressing affect or behavioral intention on them. The theory presented is considerably different from Fishbein's model. First, it bypasses the need to measure two separate components in Fishbein's model to estimate attitude toward an object. Second, it brings to bear the influence of situational factors (both anticipated and unanticipated) which intervene between behavioral intention and behavior. Finally, the theory provides a multivariate model to develop multidimensional attitude scores from beliefs bypassing the a priori assumptions of summing beliefs and a univariate attitude score. I wish to be identified with this theory only.

#### CORRELATION COMPARISONS

Cohen, Fishbein, and Ahtola consider that a greater correlation with affect represents a better model. This would be a reasonable yardstick if various models were tested (a) under the same conditions, (b) for pretty much the same problem areas, and (c) on the same or at least similar sampling units. The authors cite 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 involved 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.

Time Period	Instant Breakfast Brand	Correlation of Beliefs with Affect	Sample Size
First Telephone Interview	CIB	.75	512
	PIB	.64	189
	FIB	.74	98
Second Telephone Interview	CIB	.82	467
	PIB	.82	296
	FIB	.67	175
Third Telephone Interview	CIB	.84	398
	PIB	.78	449
	FIB	.78	352

Should I conclude from these findings that my model

is superior to Fishbein's, Rosenberg's, or someone else's model? I think not. Unless we do a comparative study under the same setting, on the same issue, and on the same or essentially the same subjects it is not possible to claim victory for any model.

## REFERENCES

1. Carroll, John B. "Words, Meaning and Concepts," in J. A. Emig et al., eds., *Language and Learning*. New York: Harcourt, Brace, and World, 1964, 73-101.
2. Cartwright, Dorwin. "Some Principles of Mass Persuasion," *Human Relations*, 2 (July 1949), 253-67.
3. Diebold, Richard A., Jr. "A Survey of Psycholinguistic Research 1954-1964," *Psycholinguistics*, 3 (1965), 209-276.
4. Fishbein, Martin, ed. *Readings in Attitude Theory and Measurement*. New York: Wiley, 1967.
5. Howard, John A. and Jagdish N. Sheth. *The Theory of Buyer Behavior*. New York: Wiley, 1969.
6. Osgood, Charles. "Studies in the Generality of Affective Meaning Systems," *American Psychologist*, (January 1962), 10-28.
7. Rosenberg, Milton. "Cognitive Structure and Attitudinal Affect," *Journal of Abnormal and Social Psychology*, 53 (November 1956), 367-72.
8. ———. "A Structural Theory of Attitude Dynamics," *Public Opinion Quarterly*, 24 (Summer 1960), 319-40.
9. ———, Carl I. Hovland, William J. McGuire, Robert P. Abelson, and Jack W. Brehm. *Attitude Organization and Change*. New Haven: Yale University Press, 1960.
10. Sheth, Jagdish N. "Attitude as a Function of Evaluative Beliefs," paper presented at the American Marketing Association workshop in Consumer Behavior, 1969.
11. ———. "An Investigation of Relationships Among Evaluative Beliefs, Affect, Behavioral Intention and Behavior," unpublished paper, University of Illinois, 1970.
12. Smith, M. Brewster. "Personal Values as Determinants of a Political Attitude," *Journal of Psychology*, 28 (August 1949), 477-86.
13. Woodruff, A. D. and F. J. Diveson. "The Relationship Between Values, Concepts and Attitudes," *Educational and Psychological Measurements*, 8 (Winter 1948), 645-69.

## A Reply to the Response to Bass, Talarzyk, and Sheth

W. WAYNE TALARZYK\*

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 basics, but the differences seem to come up in specific applications of the concepts.

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

"Attitude research has become a vital part of the marketing research picture due to the growing realiza-

\* W. Wayne Talarzyk is Associate Professor of Marketing, College of Administrative Science, The Ohio State University.

tion 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