

Attitudes and behavior: Are produce consumers influenced by eco-labels?

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Small food producers throughout the U.S. and Europe are trying to persuade consumers to buy and even pay more for products that come from ecologically sensitive management rather than heavily subsidized and environmentally destructive mainstream practices. Each group hopes to mitigate an environmental problem by internalizing the true costs of production, through the use of an eco-label (Chasteen 1999).

An eco-label is a visually simple label that communicates to the consumer something environmentally unique about the product. The most popular eco-label used nationwide in the U.S. is the dolphin safe label on some brands of canned tuna fish. The silhouette of a dolphin leaping is supposed to communicate to the consumer that no dolphins were intentionally killed while harvesting the tuna fish packaged by that processing company.

The Food Alliance, a non-profit organization located in Portland, Oregon, has developed a certification and eco-labeling program for environmentally conscientious Pacific-Northwest farmers and their products. The desire to evaluate the effectiveness of these types of labels informed the design of the present study.

A popular approach to predicting human behavior is to measure individual attitudes. However, there are inherent problems associated with trying to predict behavior from attitudes, especially measuring general attitudes in order to predict specific behaviors (cf., Ajzen & Fishbein 1980, Kaiser et al 1999). A Canadian consumer environment study (1993), garbage studies done at the University of Arizona by Rathje (1984, 1989), and recycling studies (Corral-Verdugo 1997, Werner & Makela 1998) are a few studies that clearly show the inconsistency frequently observed between environmental attitudes and pro-environmental behaviors.

The present study sought to describe the relationship, if any, between specific environmental attitudes and a specific pro-environmental behavior: purchasing eco-labeled foods. In an attempt to maximize attitude-behavior correspondence, the present study carefully tailored the attitude measure and eliminated the temporal delay between the behavioral observation and the attitude measure.

Participants

Participants were 226 consumers (85 males, 140 females, and one of unknown gender) contacted in five stores in the Portland, Oregon suburban area. Consumers ranged in age from their 20s to 80s with those in their 40s being the most prevalent age group.

Procedure

The method used in this study enabled a unique comparison of behavior and attitudes through the combination of systematic observation and attitude scaling. Specific attitude questions as well as a single dimension (environmental concern) from an attitude scale currently under development (Clarke 1998) were used to measure attitudes.

Observers were instructed and trained to position themselves at the corner of the produce section in the grocery store where a certified farmer's fruit was being displayed (with The Food Alliance label) for sale. With a stopwatch, observers were instructed to randomly choose a consumer who was observed shopping in the produce department and measure the time spent at The Food Alliance display. In addition, observers recorded the following behaviors: whether the consumer *stopped* at The Food Alliance fruit, *read* the sign (latency recorded), *tasted* a sample of the fruit, *picked up* the fruit, and/or *placed* the fruit in his or her basket or cart. Then, when that consumer started to exit the produce department, the observer was instructed to intercept the individual and ask if she or he would participate in a two-minute survey. If the consumer agreed,

the interviewer would administer the set of written attitude questions and record any and all responses.

Results

It was anticipated that this combination of attitude questions and behavior observation would provide insight into the links, if any, that exist when an environmentally sensitive product, clearly labeled as such, is made available in the marketplace. Behavior observation and attitude questionnaire data from consumers in five different Portland, Oregon grocery stores showed small positive relationships between awareness of the labels, environmental concern attitudes, and consumer behavior.

Regression analysis suggested that the attitude scale used in the present study had a moderate level of predictive validity. Thirty-one percent of the variation in attitude scores was explained by four observable behaviors (stopping at display, picking-up fruit, time looking at display, and the nature of the interaction between the consumer and the display). Much of the unaccounted for variance is likely explained by other related factors such as product availability, price, convenience, and advertising. However, the observed relationship shows that carefully chosen methods and measures can reveal a limited predictive relationship between attitudes and pro-environmental consumer behaviors. More extensive marketing of eco-labeled products may lead to stronger links between environmental attitudes and consumer purchasing behavior.

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