State versus Action Orientation and the Theory of Reasoned Action: An Application to Coupon Usage

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This article investigates how the individual difference variable of state versus action orientation moderates the pattern of relationships among constructs in the theory of reasoned action. State orientation refers to a low capacity for the enactment of action-related mental structures, whereas action orientation refers to a high capacity for this type of enactment. A field study was conducted in the context of consumers' self-reported usage of coupons for grocery shopping. The results showed that state versus action orientation moderates the relative importance of determinants of intentions; specifically, subjective norms become more important as people become state oriented, whereas the relative importance of attitudes increases as people become action oriented. In addition, the study showed that past behavior is a determinant of intentions to use coupons.

A dominant approach to modeling the etiology of behavior in consumer research has been Fishbein and Ajzen's (1975; Ajzen and Fishbein 1980) theory of reasoned action (e.g., Bagozzi 1982; Burnkrant and Page 1982; Lutz 1977; Ryan and Bonfield 1980; see Sheppard, Hartwick, and Warshaw [1988] for a recent review). The theory posits that overt behavior is a function of a person's intention, which in turn is hypothesized to depend on that person's attitude toward the behavior and his/her subjective norms. One implication of the theory is that attitudes and subjective norms mediate the effects of other variables on intentions and that intentions mediate the impact of attitudes and subjective norms on behavior. Bettman (1986) has termed these requirements the "sufficiency assumption."

Various modifications and extensions of the basic Fishbein and Ajzen (1975) framework have been suggested (see also Ajzen 1985; Bagozzi and Warshaw 1990; Cote, McCullough, and Reilly 1985; Miniard and Cohen 1983; Oliver and Bearden 1985; Warshaw 1980). To begin with, several researchers have discovered that attitudes sometimes have direct effects on behavior (e.g., Bentler and Speckart 1979, 1981; Bonfield 1974; Manstead, Proffitt, and Smart 1983; Zuckerman and Reis 1978; see Bagozzi, Baumgartner, and Yi [1989] for a review), and research has begun to investigate the conditions under which intentions will *not* mediate the impact of attitudes on behavior. For example, some studies have looked at attitudinal qualities (e.g., whether or not the attitude is based on direct experience with the attitude object) that lead to attitude-behavior consistency (e.g., Fazio and Zanna 1978a, 1978b). In addition, it has been shown that the manner in which attitudes influence behavior depends on how well formed intentions are and on how effortful the behavior of interest is (Bagozzi and Yi 1989; Bagozzi, Yi, and Baumgartner 1990). In sum, evidence suggests that the effects of attitudes on behavior vary with attitudinal, intentional, and behavioral qualities.

Researchers have also begun to investigate the conditions under which attitudes or subjective norms will be more important determinants of intentions. Fishbein and Ajzen (1975, p. 303) hypothesize that the relative importance of the attitudinal and normative components depends on personal characteristics, among other factors, but they argue that determining these components' weights is an empirical question. However, it now seems possible to make some a priori specifications,

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especially for certain individual difference variables. For example, Bearden and Rose (1990) showed that attention-to-social-comparison information, a construct proposed by Lennox and Wolfe (1984) as an alternative to Synder's (1974) self-monitoring scale, moderated the relative impact of personal and normative considerations on intentions. Similarly, Saltzer (1978) found that, for subjects with high outcome values, locus of control influenced whether intentions were a function of attitudinal or normative factors. Thus, evidence suggests that the relative effects of attitudes and subjective norms on intentions vary with personal characteristics.

In addition, several studies indicate that the strength of the intention-behavior relationship varies systematically with certain individual difference variables. For example, Ajzen, Timko, and White (1982) found that low self-monitors showed greater correspondence between intentions and behavior than did high self-monitors. Similarly, Saltzer (1981) showed that, among subjects with high outcome values, internal locus-of-control individuals were more likely to enact their intentions than external locus-of-control individuals.

Finally, research has shown that the effects of past behavior on intentions are sometimes not mediated fully by attitudes and/or subjective norms (e.g., Bagozzi 1981; Bentler and Speckart 1979, 1981; Fredricks and Dossett 1983). Furthermore, prior behavior at times has direct effects on present behavior that are not mediated fully by intentions (e.g., Ajzen and Madden 1986; Bagozzi 1981; Bentler and Speckart 1979, 1981; Fredricks and Dossett 1983).

The many recent modifications and extensions of the theory of reasoned action suggest that its explanatory power is limited and contingent on other psychological processes. Unfortunately, little integrative work has been done to reconcile the diverse contingencies noted above. If the theory of reasoned action, in general, and the numerous variables offered as additions to the theory, in particular, are to have utility, they must be grounded in a coherent and parsimonious way.

When we step back and look at recent developments, one theme that cuts across most explanations is the role of self-regulation in decision making. The theory of reasoned action assumes that behavior is based on deliberative processes. However, the theory says little about when favorable attitudes and subjective norms lead to intentions to act. Rather, the theory assumes that favorable attitudes and subjective norms inevitably lead to intentions. Self-regulatory processes constitute motivational mechanisms for energizing the linkages found in the theory of reasoned action, as will be discussed below.

This article continues the research tradition that seeks to more deeply understand the pattern of relationships among constructs in the theory of reasoned action and considers a key individual difference variable governing self-regulatory processes: state versus action orientation (Kuhl 1981, 1982a, 1984, 1985, 1986). Action control can be considered a motivational construct moderating the key linkages in the theory of reasoned action. The general thesis is that action control reflects a person's readiness to make a decision and to implement that decision (see the next section). Our aim is to determine whether state versus action orientation (1) affects the manner in which attitudes influence behavior, (2) has an impact on the relative weighting of attitudinal and normative considerations in influencing intentions, and/or (3) moderates the strength of the intention-behavior relationship. In addition, we examine whether past behavior has direct effects on intentions and/or future behavior.

The primary goals of our study are to introduce the concept of action control and to test for its moderating role in the theory of reasoned action. To the best of our knowledge, action control has not been considered in this way in either the consumer behavior or psychology literature. As a context for accomplishing these goals, we have chosen consumers' decision making and usage of coupons for grocery shopping. Because the use of coupons involves a series of deliberative steps, including planning and implementation (i.e., coupons must be scanned and evaluated, clipped out, organized and stored, and later selected and presented to a checkout person), and at the same time may be subject to social pressures, it seems to encompass all the components of the theory of reasoned action. Moreover, the repeated nature of the act and the relatively low involvement entailed for most shoppers make the functioning of the components in the theory of reasoned action problematic. Action control is a plausible self-regulatory mechanism in this situation.

A subsidiary contribution of the study is to better explain coupon usage. Shimp and Kavas (1984) have shown that the theory of reasoned action is applicable to coupon usage, and a number of other researchers have examined variables overlapping with the theory of reasoned action as well (e.g., Babakus, Tat, and Cunningham 1988; Gardner and Strang 1984; Lichtenstein, Netemeyer, and Burton 1990; Shoemaker and Tibrewala 1985; Teel, Williams, and Bearden 1980). One goal of our study is to show that consideration of action control and past behavior increases the explanation of coupon usage beyond that which is afforded by the traditional variables in the theory of reasoned action.

ACTION CONTROL AND STATE VERSUS ACTION ORIENTATION

Kuhl's (1981, 1982a, 1984, 1985, 1986) work on state versus action orientation is part of his more general theory of action control. Action control refers to self-regulatory mechanisms that mediate (i.e., help overcome the difficulties inherent in) the enactment of action-related mental structures, particularly intentions

(e.g., Kuhl 1984, 1986). Kuhl (1982a) hypothesizes that people differ in their disposition toward, or capacity for, action control; that is, people differ regarding the proportion of intentions that they transform into behavior. People with low self-regulatory capacity are called state oriented, and people with high self-regulatory capacity are called action oriented. In a sense, state versus action orientation refers to a person's general tendency to approach or avoid things in a static (passive) or dynamic (active) fashion. Conceptually, state and action orientation are at opposite ends on a continuum. State orientation reflects inertia to act; action orientation indicates readiness to act. Kuhl (1985) developed several scales measuring various forms of action control: performance-related, failure-related, and decision-related state versus action orientation. In our research we focused on the third form of action control because we were interested in the decision-related aspects of state versus action orientation in coupon-usage decisions.

Several studies suggest that state orientation is related to a catastatic (i.e., change-preventing) mode of control, whereas action orientation is related to a metastatic (i.e., change-inducing) mode of control. When an individual is in a catastatic mode of control (e.g., wishful thinking or fantasizing), the enactment of action-related mental structures seems to be more difficult than when the individual is in a metastatic mode of control (e.g., planning and executing instrumental acts; Kuhl 1985). One study reported by Kuhl (1982b) is of particular relevance to our present concerns. Students in a German secondary school were asked for their intentions to engage in a series of after-school activities, and the next day they reported the extent to which they had actually engaged in these activities. The findings showed that the correspondence between intentions and actual behavior was significantly greater for action-oriented than for state-oriented subjects.

It is interesting that the reverse result was obtained for some highly routinized activities (e.g., brushing one's teeth, cleaning one's shoes) that may be largely under situational control. That is, for activities that people are induced to engage in for social reasons, intention-behavior correlations were higher in state-oriented than in action-oriented subjects. Kuhl (1982a, 1982b, 1985) explains this finding by postulating that there is an increase in the tendency to perform activities that require little self-regulatory support (i.e., routinized and socially required activities) while an individual is in the catastatic model of control. That is, performing socially expected and externally controlled behaviors may be a way for state-oriented people to overcome deficits in self-regulatory capacity. This may indicate that "state-oriented persons form their intentions on the basis of perceived situational control of action" (Kuhl 1982a, p. 72). Kuhl (1982b) did not collect attitudinal or normative measures, but in the context of the theory of reasoned action the aforementioned results suggest that *state-oriented subjects form their intentions on the basis of normative expectations,* whereas *action-oriented subjects arrive at their intentions through attitudinal considerations.*

Why should attitudes influence intentions more strongly for action-oriented as opposed to state-oriented people? We can think of an attitude as indicating one's evaluation of an action. A favorable attitude implies that an act is good or desirable from an actor's point of view. However, a positive evaluation does not necessarily imply that one will act. Attitudes reveal that particular things are valued or not valued but they do not provide the energy needed for action. What is missing is an explicit motivational force to transform an attitude into the will to act (Bagozzi 1991). Once an attitude is formed, we hypothesize that action-orientation functions in a motivational role. A favorable attitude signals that action would lead to valued consequences, but the decision to act also requires that one be motivated to act (i.e., that one be action oriented). In other words, we might think of action orientation as a state of energy that presses for action—but whether one decides to act depends on recognizing that something is valued. Attitudes provide a directive and appraisal function focused on a specific object or action, whereas action orientation provides a general motivational force. Both are needed for strong intentions to form. State orientation implies low motivation or an absence of motivation to act. Hence, we expect that attitudes will have a stronger effect on intentions for action- versus state-oriented people.

Why should subjective norms influence intentions more strongly for state-oriented as opposed to action-oriented people? Subjective norms—the belief that those whose opinions one values think one should or should not act in a particular way—contain strong cognitive elements that are based on the judged expectations of significant others. Attitudes—the pleasantness or unpleasantness of an act—are more affective and less cognitive in content than are subjective norms. At least the *direct* measures of attitude and subjective norms exhibit these distinctions.[1] When attitudes and action orientation interact to influence intentions, the process can be considered preconscious and automatic in the sense that it is "involuntary, effortless (i.e., not consumptive of limited processing capacity), autonomous, and occurring outside of awareness" (Bargh 1989,

[1]By direct measures of attitude and subjective norms we mean, respectively, semantic differential measures of global attitude (e.g., pleasant–unpleasant) and overall felt normative pressure (e.g., perceived expectations from "people who are important to me"). These are to be contrasted with indirect measures that are used to indicate the reasons for one's attitudes and felt subjective norms: i.e., indirect measures of attitudes are items indicating beliefs and evaluations of the consequences of acting, and indirect measures of subjective norms are items indicating normative expectations of specific others and one's motivation to comply.

p. 3). An automatic-like activation of intentions, however, is not likely to result from the interaction of subjective norms and action orientation because of the deliberative processes implied. We expect that people high in state orientation, by definition, would have a greater tendency to engage in relevant deliberative assessments (i.e., identification of significant others and their expectations and one's need to comply with these). Hence, we hypothesize that subjective norms will have a stronger effect on intentions for state- versus action-oriented people. The interaction here can be considered an outcome of controlled processes, defined as "those that are under the flexible, intentional control of the individual, that he or she is consciously aware of, and that are effortful and constrained by the amount of attentional sources at the moment" (Bargh 1989, p. 4).

A person's degree of state versus action orientation may also influence whether attitudes will have direct effects on behavior (i.e., effects not mediated by intentions). Action orientation reflects readiness to act, whereas state orientation indicates inertia to remain in a state of inaction. Because an action-oriented person is characterized by an inherent readiness to act, s/he might be moved to act, at least partly, on the basis of a favorable attitude alone, especially when the behavior of interest is not too effortful or involving (and therefore not requiring that mental effort be devoted to decision making and intention formation) or when the attitude is especially strong (such as for intensely emotion-laden attitudes or compelling conative urges; see, e.g., Bagozzi 1991). In such cases, an attitude can stimulate action directly without activating an intention. On the other hand, a state-oriented person is not easily moved to act, and a positive attitude toward a behavior, in itself, might not be sufficient to stimulate action. In such cases, volitional processes may be required for the performance of behavior. That is, an intention, an explicit plan to act ("I *will* do something"), may be necessary for state-oriented individuals to transform the mental event of an attitude into observable action. In this case, an attitude might have to be based more on rational factors that provide sufficient reasons for one to form an intention (Bagozzi 1991). In addition, as noted above, the state-oriented individual is more prone to form an intention as a function of normative expectations than is an action-oriented person. In sum, attitudes may have direct and indirect effects on behavior for action-oriented people. For state-oriented people, attitudes are likely to have only indirect effects (if any) on behavior through their effects on intentions.

Until now we have examined the construct of action control and its moderating influences on the theory of reasoned action. However, it might be useful to compare it with other conceptually related constructs. One concept that could be related to action control is self-consciousness, or the "consistent tendency of persons to direct attention inward or outward" (Fenigstein, Scheier, and Buss 1975, p. 522). Public self-consciousness involves a general awareness of the self in relation to others (e.g., "I'm very concerned about the way I present myself"), whereas private self-consciousness is concerned with attending to internal thoughts and feelings (e.g., "I reflect about myself a lot"; Scheier and Carver 1985). It might therefore be expected that self-consciousness is related to state versus action orientation because each is concerned with the focus of attention. However, the latter is concerned with whether attention is focused on particular internal and external states or action-related mental structures (e.g., Kuhl 1985, p. 108), whereas the former deals with the broad issue of whether attention is directed inward or outward in general (i.e., it refers to the direction of focus, not specific content per se). Empirically, self-consciousness and decision-related action control have been shown to be independent (e.g., $r = -.22$ in one study; Kuhl 1984).[2]

State versus action orientation may also look similar to Rotter's (1966) construct of locus of control. In theory, however, an important difference exists between the two concepts. As noted by Kuhl (1982a), locus of control refers to how much control people think they have, whereas action orientation relates to the amount of control they actually exert. For example, a person may think s/he can control everything but make little use of this imagined potential because s/he is either not interested in using it or not able to use it (i.e., one might misperceive one's actual controlling capabilities). Empirical findings support this logic in that the correlation between Rotter's scale and the action-control scale has been found to be very low (e.g., $r = .04$; Kuhl 1982a).

Self-monitoring is defined as the extent to which people regulate their self-presentation by tailoring their actions to fit immediate situational cues (Snyder 1974). High self-monitors are assumed to act in accordance with the requirements of the social situation, whereas low self-monitors are expected to act in accordance with their personal values, preferences, and convictions. A case in point is the attention-to-social-comparison-information (ATSCI) scale. This variable, which is a measure of individuals' predisposition to act on the social cues concerning their behavior or sensitivity to social-comparison information, has been identified as a construct that is distinct from self-monitoring (Lennox and Wolfe 1984). Persons high in ATSCI are aware of others' reactions to their behavior and are sensitive to the nature of those reactions (Bearden and Rose 1990).

[2]In fact, Kuhl (1984) reported the correlations between the action control variable with various personality variables such as test anxiety, extraversion, achievement motivation, future orientation, and cognitive complexity. All the correlations were low to moderate ($|r| < .33$), suggesting that state vs. action orientation is distinct from these variables.

Since data on the correlations among the aforementioned variables are sparse, we conducted a study to investigate the discriminant validity of the action-control construct. Fifty-six undergraduate students responded to a questionnaire containing the state versus action orientation, self-consciousness, Rotter's locus of control, self-monitoring, and ATSCI measures. The correlations of state versus action orientation with these variables were as follows: −.37 (self-consciousness; $p < .01$), −.21 (private self-consciousness; NS), −.31 (public self-consciousness; $p < .05$), −.06 (locus of control; NS), −.38 (self-monitoring; $p < .01$), and −.27 (ATSCI; $p < .05$). The full results for this study are available on request from the authors.

Overall, correlations between action orientation and several personality variables (e.g., self-consciousness, self-monitoring, ATSCI) indicate some theoretical overlap. However, the low-to-moderate size of the correlations ($|r| < .38$) suggests that a substantial proportion of the variance in action control cannot be accounted for by any of these personality variables. That is, the action-control construct seems to show a sufficient degree of discriminant validity. Kuhl (1984) presents a more detailed discussion of these variables and further results pertaining to the construct validity of the action-control scale.

PAST BEHAVIOR

The theory of reasoned action posits that attitudes and subjective norms are sufficient to predict intentions. That is, other variables are expected to influence intentions only indirectly through their impact on attitudes and/or subjective norms. Because intentions are hypothesized to mediate all the effects of attitudes and subjective norms on behavior, the influence of other variables on behavior is also expected to be mediated by intentions. However, researchers have found that some variables have direct effects on intentions and/or behavior that are not mediated by attitudes and subjective norms or intentions.

Past behavior is a case in point. Several studies have shown that the effects of past behavior on intentions are sometimes not mediated by attitudes and/or subjective norms (e.g., Bagozzi 1981; Bentler and Speckart 1979, 1981; Fredricks and Dossett 1983) and that prior behavior, at times, has direct effects on present behavior that are not mediated by intentions (e.g., Ajzen and Madden 1986; Bagozzi 1981; Bentler and Speckart 1979, 1981; Fredricks and Dossett 1983). Whether past behavior should be accommodated in the theory of reasoned action probably depends on the behavior of interest, and the present study investigates how important prior behavior is in the context of coupon usage.

It should be noted that the inclusion of a prior behavior construct in a theory presumably dealing with reasoned behaviors is not a contradiction in terms. First, the assumption that actions are totally under volitional control (a premise made in the theory of reasoned action; see Ajzen and Madden 1986) is at best an oversimplification and at worst a misrepresentation. Most behaviors contain volitional elements to a greater or lesser extent. Second, even if behavior were determined either directly or indirectly (i.e., through intentions) by past behavior, it does not follow that such behavior is necessarily habitual (Triandis 1977, 1979), scripted (Abelson 1976, 1981), or mindless (Langer 1978). This claim is especially true whenever prior behavior does not directly affect subsequent behavior, yet the intention-behavior link is significant and prior behavior affects intentions (e.g., Bagozzi and Warshaw 1990). In this case a reasonable interpretation may be that past behavior serves as one type of informational input to the decision to act in addition to attitudes and subjective norms. For example, prior behavior may reflect an individual's assessment of the extent of perceived behavioral control, a construct suggested by Ajzen and Madden (1986). Alternatively, prior behavior might capture the effects of nondeliberative, automatic responses, such as the activation of a previously stored intention to act in a certain way at a future time when certain problematic elicitors arise. For instance, at time t_1 a person might form an intention to purchase brand X at an unknown future time, t_2, only if and when a coupon becomes available between t_1 and t_2. When the problematic coupon is discovered, the stored intention is retrieved and subsequent coupon usage activated. Such contingent, problematic decision processes have been termed "event-triggered intentional actions" in the literature (Bagozzi and Warshaw, in press).

A second rationale for including prior behavior as a predictor is methodological. Past behavior serves as a covariate controlling for the effects of omitted variables. By including past behavior in a test of the theory of reasoned action, one can discover whether attitudes and subjective norms influence intention after controlling for the effects of omitted variables. Whatever the exact mechanism may be, finding a significant effect for past behavior in a certain context would call for additional research on the nature of the underlying process. Previous research using the theory of reasoned action in the prediction of coupon usage has not considered past behavior.

COUPON USAGE AND THE THEORY OF REASONED ACTION

According to the latest statistics (*Adweek's Marketing Week* 1990), 273.4 billion coupons (more than 3,000 per household) were issued in 1989, at an average face value of 49.7¢. Of these, 7.1 billion were actually redeemed, for a total of about $3.5 billion. The value of goods purchased with coupons is, of course, much greater than the value of coupons. Clearly, it is impor-

tant for consumer researchers to understand why people use coupons.

Shimp and Kavas (1984) have shown that the theory of reasoned action is useful in specifying the antecedents of coupon usage for grocery shopping. Specifically, these authors found that the cognitive (expectancy-value) structure underlying consumers' attitude toward using coupons was best represented as a multidimensional construct, that attitudinal and normative influences on intentions were inextricably interdependent, and that attitudes and subjective norms had no direct effects on behavior. Furthermore, the standardized path coefficients from attitudes and subjective norms to intentions were of about equal magnitude in most of the models tested, and the two antecedents of intentions accounted for up to 48 percent of its variance, depending on the model examined.

In this article we extend Shimp and Kavas's (1984) pioneering work on the determinants of coupon-usage behavior in several ways. First of all, as mentioned earlier, we hypothesize that state versus action orientation will moderate the pattern of relationships in the theory of reasoned action. Specifically, we investigate whether a person's state versus action orientation (1) influences the extent to which attitudes have direct effects on behavior, (2) affects the formation of intentions on the basis of attitudes or subjective norms, and/or (3) moderates the degree of correspondence between intentions and behavior. Our main hypothesis is that attitudes will influence intentions to a greater degree for action-oriented subjects, whereas subjective norms will influence intentions to a greater extent for state-oriented subjects.

Second, we hypothesize that a consumer's prior history of using coupons for grocery shopping will serve an important role in influencing intentions and possibly behavior. Several studies have shown prior behavior to be a significant determinant of intentions and/or actual behavior (e.g., Bagozzi 1981; Bagozzi and Warshaw 1990; Bentler and Speckart 1979, 1981; Fredricks and Dossett 1983). For an act such as coupon usage, which is characterized by frequent and extensive repetitions, it seems likely that past behavior would be an important determinant of a consumer's decision and behavior (*Psychology Today* 1983; Ronis, Yates, and Kirscht 1989).

METHOD

Subjects

Female staff members at a major university served as subjects for the study. Two questionnaires, separated by one week, were sent to potential participants. A total of 198 subjects participated in the first wave of data collection, 163 of whom also completed the second questionnaire. After discarding cases with missing values, 149 subjects with complete data remained.

Procedure

Questionnaires with cover letters encouraging people to participate in the study were sent to a sample of female staff members via campus mail. The cover letter stated that the purpose of the study was to learn more about people's attitudes toward coupons and their redemption practices. Strict confidentiality of all responses was assured, and a lottery with several cash prizes was used to attract volunteers. The questionnaire contained the measures of past coupon usage, attitude toward using coupons, subjective norms, and intentions, as well as the state- versus action-orientation scale, as described below. Each questionnaire was marked with an identification number to match responses across the two waves of data collection. Subjects also indicated when they had actually completed the questionnaire.

One week later the second questionnaire was mailed to those people who had participated in the first wave of data collection. The cover letter thanked subjects for taking the time to fill out the first questionnaire and reminded them that they had to complete both surveys to be eligible for the lottery. The second questionnaire assessed people's self-reported coupon usage during the past week, among other responses not relevant to the present study.

Measures

Multiple measures were used for each construct of interest, wherever possible, so that the measurement errors could be averaged out. The attitude toward using coupons for shopping in the supermarket during the upcoming week was assessed with three seven-point semantic differential scales: pleasant/unpleasant, good/bad, and favorable/unfavorable. In the manner of Shimp and Kavas (1984), subjective norms were measured with two items: "Most people who are important to me think I definitely should/definitely should not use coupons for shopping in the supermarket during the coming week," and "Most people who are important to me probably consider my use of coupons to be wise/foolish." Both items were rated on seven-point scales. Intentions were assessed by asking subjects to express their intentions and plans to use coupons for shopping in the supermarket during the upcoming week. The first measure was a seven-point likely/unlikely scale, the second an 11-point no chance/certain probabilistic scale. Past coupon usage in general was measured with a single-item seven-point scale having endpoints of "I never use coupons" and "I use coupons every time I do my major shopping and generally redeem more than ten coupons," with analogous responses in between, forming a gradient of prior use of coupons.

The first questionnaire also contained the decision-related state- versus action-orientation scale (Kuhl 1985). This scale consists of 20 forced-choice items, one

response alternative in each case reflecting state orientation (SO) and the other action orientation (AO). A representative item from the scale is, for example, "When I want to see someone again, (a) I plan to do it someday (SO), or (b) I try to set a date for the visit right away (AO)" (see the Appendix for the complete scale). The responses to the 20 items of the state- versus action-orientation scale, appropriately recoded if necessary, were summed (coefficient $\alpha = .61$).[3]

Coupon usage during the past week was assessed on the second questionnaire, which was administered a week after the first as follows. Subjects were presented with a table that had 21 product categories for which coupons are commonly used as its rows (e.g., cereal, juice drinks, paper towels, snack foods, canned goods) and six sources of coupons as its columns (i.e., direct mail, newspapers, magazines, in or on packages, from store displays or flyers, from relatives or friends). An additional row was included for "other" products and brands so that respondents could indicate usage in categories not covered by the 21 listed. Subjects were asked to indicate how many coupons they had used for each category and source combination (e.g., three coupons for cereals that were obtained from relatives or friends). This procedure was thought to make it easier for subjects to arrive at a more accurate estimate of coupon usage during the past week. The total number of coupons used across product categories and sources served as the measure of coupon usage. A square-root transformation was used for the self-report measure of behavior to normalize the distribution, which was highly skewed.[4]

Analysis

We performed moderated regression analyses to test the moderating effects of state versus action orientation. Moderated regression analyses for the total sample were performed to test the moderating effects by treating the state- versus action-orientation score as a continuous variable. This approach can be contrasted with previous analyses performed by others in which the sample had been split into subgroups (i.e., action-oriented and state-oriented groups) that differed in terms of action control and then analyzed separately (e.g., Kuhl 1981).

Several considerations guided the choice of moderated regression analysis over subgroup analysis. First, subgroup analysis may have low statistical power and may confound subgroup variance differences with true moderator effects (Cohen and Cohen 1983; Baron and Kenny 1986). Moderated regression analysis maintains original scores on a moderator variable and avoids the loss of information resulting from the artificial transformation of a continuous variable into a qualitative one. This procedure maintains the integrity of a sample yet provides a basis for controlling the effects of a moderator variable, and utilization of the data is more nearly complete (see Sharma, Durand, and Gur-Arie 1981). Second, a median split into subgroups, such as action- or state-oriented groups, may create discrete groups that do not exist, at least for the present sample. That is, a median split does not necessarily result in true action- and state-oriented groups. For example, both groups formed by a median split might be relatively high in action orientation. One group might be more action oriented than the other, but both might be on the action-oriented side of the continuum.[5] It should be emphasized that action versus state orientation refers to the relative degree of action control. Finally, the observed relationships can sometimes be very sensitive to cutoff points used to form subgroups, especially when there is no natural cutoff point.

The key variables were mean centered to reduce multicollinearity in the regression analysis. Because moderated regression analyses include multiplicative terms that might be highly correlated with their constituents, multicollinearity might be a potential problem for the estimation of regression coefficients (Cohen and Cohen 1983). Mean centering has been shown to reduce such multicollinearity in multiplicative regression models (see Yi [1989] for a discussion on the advantages of mean centering).

We also calculated the statistical power of the significance test in the moderated regression analysis. Given the sample size, power will be a function of the effect size and the significance level (i.e., type I error rate, or α). We chose an R^2 of .02 as the effect size in calculating power. Cohen (1988) has argued that the effect size can often be expressed in terms of the proportion of explained variance, and he considers an R^2 difference of .02 as "small" in multiple regression. Thus,

[3]We admit that the reliability of the scale is rather low in this study. However, it should be stressed that this value of α is based on the application of Pearson product-moment correlations to dichotomous measures. When polychoric correlations are used, the α of the scale is .75. It can be argued that polychoric correlations are more appropriate than Pearson product-moment correlations and, therefore, that the α level of .75 is the one most applicable for our data. Also, previous research has shown that the scale is reliable and valid. For example, α coefficients ranged between .71 and .82, and discriminant validity coefficients ranged between 0.01 and 0.36 (e.g., Kuhl 1984, 1985). Given such evidence for the reliability and validity of the scale in previous research, we have kept and used the original scale.

[4]The skewness and kurtosis were 1.390 and 1.976, respectively, for the behavior measure before the transformation. After the transformation, however, the skewness and kurtosis became 0.028 and −0.740, respectively. These results suggest that the square-root transformation solved any problem.

[5]When a median split was used for the current sample, the means were 10.2 and 14.8 for the two groups. The means were significantly different ($p < .05$). However, since the action control scale has a midpoint of 10, the means would indicate both of the groups are really action oriented in an absolute sense. We thank the reviewer for useful comments regarding the median split.

TABLE 1

RESULTS OF THE MODERATED REGRESSION ANALYSIS FOR INTENTIONS (WITHOUT PAST BEHAVIOR IN THE MODEL)

Variable	Standardized coefficient	*t*-Value
A	.48***	5.58
SN	.13	1.49
SAO	−.01	−.22
A × SAO	.24**	2.86
SN × SAO	−.15*	−1.81
R^2	.37***	. . .

*$p < .05$, one-tailed test.
**$p < .01$.
***$p < .001$.

TABLE 2

RESULTS OF THE MODERATED REGRESSION ANALYSIS FOR BEHAVIOR (WITHOUT PAST BEHAVIOR IN THE MODEL)

Variable	Standardized coefficient	*t*-Value
I	.47***	5.80
A	.22**	2.41
SN	.02	.25
SAO	.07	1.09
I × SAO	.05	.52
A × SAO	−.02	.18
SN × SAO	−.02	.28
R^2	.41***	. . .

**$p < .01$, one-tailed tests.
***$p < .001$.

we assessed the power of the statistical test to detect a "small" effect in the moderated regression analysis. We assessed power at two levels of significance: $\alpha = .05$ and .10.

RESULTS

Individual item reliabilities, composite reliabilities, and average variance extracted (AVE) for the measures were calculated. Most of the individual item reliabilities were moderate to high. All composite reliabilities were high, with an average of 0.85. Furthermore, the AVE measures were greater than 0.50, the rule-of-thumb level considered appropriate (Fornell and Larcker 1981). The mean AVE was 0.74, suggesting that more than 70 percent of the variance in the measures was explained by the constructs. Overall, the measures of key constructs were found to be reliable.

According to the theory of reasoned action, attitudes and subjective norms are expected to capture the effects of all other variables (including past behavior) on intentions and behavior (see, e.g., Ajzen and Fishbein 1980). That is, only attitudes and subjective norms are needed as immediate predictors of intentions and behavior. On the other hand, if the effects of past behavior are not fully captured by attitudes and subjective norms, as some researchers suggest (e.g., Bentler and Speckart 1981), it is necessary to include past behavior as another predictor in the model. Therefore, in testing the moderating roles of action control, we performed analyses for two models: a model without past behavior and a model with past behavior included as a separate predictor.

Analysis for the Model without Past Behavior

We conducted moderated regression analyses to investigate the relationships among the key variables in the model for intentions. Specifically, the following regression equation was used by treating state/action orientation (SAO) as a moderator of the effects of attitude (A) and subjective norms (SN) on intentions (I):

$$I = A + SN + \text{SAO} + A \times \text{SAO} + SN \times \text{SAO}. \quad (1)$$

Table 1 summarizes the results. Our hypotheses would predict a positive parameter for the $A \times$ SAO term and a negative parameter for the $SN \times$ SAO term. Results support this prediction: the parameter estimate was positive and significant for the $A \times$ SAO term ($\beta = .24$, $t = 2.86$, $p < .01$) and negative and significant for the $SN \times$ SAO term ($\beta = -.15$, $t = 1.81$, $p < .05$). In addition, the standardized coefficient is positive and significant for the A term ($\beta = .48$, $t = 5.58$) but nonsignificant for the SN term ($\beta = .13$, $t = 1.49$). At an α level of .05, the power of the statistical test to detect an effect that accounts for 2 percent of the variance was .57. Using the α level of .10, the power of the test was .68. Overall, these findings suggest that action orientation (state orientation) tends to increase (decrease) the effect of attitude on intentions but to decrease (increase) the effect of subjective norms on intentions.

Next, we conducted moderated regression analysis for behavior (B). Specifically, SAO was introduced as a moderator of the effects of A, SN, and I on B as follows:

$$B = I + A + SN + \text{SAO} + I \times \text{SAO} + A \times \text{SAO} + SN \times \text{SAO}. \quad (2)$$

Given that the I term will reflect the indirect effect of A on B (mediated by I), the terms A and $A \times$ SAO would indicate the direct effect of A on B. Specifically, the $A \times$ SAO term would indicate the moderating role of SAO in the direct effect of A on B, if any. Similarly, the $I \times$ SAO term would indicate the moderating effect of SAO on the I–B path. Thus, our hypotheses would predict positive parameters for the $I \times$ SAO and $A \times$ SAO terms.

Table 2 summarizes the results from the analysis. The hypothesized moderating effects of SAO were not

TABLE 3

RESULTS OF THE MODERATED REGRESSION ANALYSIS FOR INTENTIONS (WITH PAST BEHAVIOR IN THE MODEL)

Variable	Standardized coefficient	*t*-Value
A	.21**	2.70
SN	.01	.14
PB	.59***	8.42
SAO	−.04	−.62
A × SAO	.19**	2.64
SN × SAO	−.15*	−2.12
PB × SAO	−.03	−.44
R^2	.58***	. . .

*$p < .05$, one-tailed tests.
**$p < .01$.
***$p < .001$.

TABLE 4

RESULTS OF THE MODERATED REGRESSION ANALYSIS FOR BEHAVIOR (WITH PAST BEHAVIOR IN THE MODEL)

Variable	Standardized coefficient	*t*-Value
I	.32**	3.31
A	.16*	1.74
SN	.00	.04
PB	.26**	2.67
SAO	.04	.53
I × SAO	.07	.80
A × SAO	−.02	−.20
SN × SAO	−.13	−1.20
PB × SAO	.05	.53
R^2	.45***	. . .

*$p < .05$, one-tailed tests.
**$p < .01$.
***$p < .001$.

significant, however; the β coefficients were .05 ($t = .52$) and −.02 ($t = -.18$), respectively, for the $I \times$ SAO and $A \times$ SAO terms. That is, state versus action orientation did not moderate the direct effects of I and A on B. The direct effect of I on B was positive and significant ($\beta = .47$, $t = 5.80$), which is consistent with the theory of reasoned action. Furthermore, the direct effect of A on B was also positive and significant ($\beta = .22$, $t = 2.41$). Thus, this result indicates that A had not only indirect effects on B through I, but also had a direct effect on B (unmediated by I). At an α level of .05, the power of the test was .59; at an α level of .10, the power of the test was .70.

Analysis for the Model with Past Behavior

Next, we conducted moderated regression analyses for the model in which past behavior (PB) is included as a separate predictor. Specifically, we introduced the multiplicative terms of SAO with the antecedents of I in the regression equation as follows:

$$I = A + SN + PB + \text{SAO} + A \times \text{SAO} + SN \times \text{SAO} + PB \times \text{SAO}. \quad (3)$$

Our hypotheses would predict a significant, positive parameter for the $A \times$ SAO term and a significant, negative parameter for the $SN \times$ SAO term. Results summarized in Table 3 supported this prediction: the parameter estimate was positive and significant for the $A \times$ SAO term ($\beta = .19$, $t = 2.64$) and negative and significant for the $SN \times$ SAO term ($\beta = -.15$, $t = -2.12$). These findings suggest that action orientation tends to increase the effect of attitudes on intentions but to decrease the effects of subjective norms on intentions. The theory of reasoned action would predict that, by covarying A and SN, the effect of an external variable, such as PB, on I should be reduced to nonsignificance. However, the effect of PB was significant ($\beta = .59$, $t = 8.42$) when A and SN were controlled for, suggesting that PB had direct effects on I beyond its indirect effects through A and SN. At an α level of .05, the power of the statistical test was .73 and, at an α level of .10, the power of the test was .82.

Similarly, we conducted moderated regression analyses to test whether SAO moderates the direct effects of intentions, attitudes, subjective norms, and past behavior on behavior. Specifically, the following regression equation was used.

$$B = I + A + SN + PB + \text{SAO} + I \times \text{SAO} + A \times \text{SAO} + SN \times \text{SAO} + PB \times \text{SAO}. \quad (4)$$

Our hypotheses would predict positive, significant parameters for the $A \times$ SAO and $I \times$ SAO terms. Results summarized in Table 4 did not support this prediction: the parameter estimates were nonsignificant for the $A \times$ SAO term ($\beta = .07$, $t = 0.80$) as well as for the $I \times$ SAO term ($\beta = -.02$, $t = 0.53$). That is, state versus action orientation did not affect the direct effects of attitudes and intentions on behavior. These results are consistent with those found when past behavior was not included in the model. At an α level of .05, the power of the statistical test was .61; at an α level of .10, the power of the test was .72.

In summary, there is evidence that state versus action orientation affects the relative importance of attitudes and subjective norms in the formation of intentions. Specifically, as people become more action oriented, intentions tend to be formed more on the basis of attitudes. On the other hand, as people become more state oriented, the relative importance of subjective norms in the formation of intentions increases. In addition, past behavior was found to be an important determinant of intentions. However, the direct paths from attitudes and intentions to behavior were not affected by state versus action orientation.

DISCUSSION

The results of this study indicate that the individual difference variable of state versus action orientation moderates the pattern of relationships among constructs in the theory of reasoned action. On the basis of past research with this construct and other personality variables, it was argued that state versus action orientation would (1) affect the manner in which attitudes influence behavior directly (i.e., unmediated by intentions), (2) affect the relative weighting of attitudinal and normative considerations in the formation of intentions, and/or (3) moderate the strength of the intention-behavior relationship.

Our findings provide support for the second of these hypotheses. Specifically, we found that action orientation increased the relative importance of attitudes but decreased the relative importance of subjective norms. Thus, attitudinal considerations are more important in forming intentions for action-oriented people than for state-oriented people, whereas normative considerations are more important for state-oriented people than for action-oriented people. Fishbein and Ajzen (1975; Ajzen and Fishbein 1980) have claimed that variables not explicitly included in the model (such as personality attributes of the actor) can affect intentions and behavior only if they influence the attitudinal or normative considerations or *their relative weights.* Our findings support such claims in that a personality variable, state versus action orientation, was found to affect relative weights in the determination of intentions and/or behavior.

The hypothesis that state versus action orientation would affect the degree of correspondence between intentions and behavior was rejected. The effects of intentions on behavior were statistically significant, confirming that coupon-usage behavior is indeed under volitional control. However, the effects were not moderated by state versus action orientation. Also, state versus action orientation did not affect the manner in which attitudes directly influence behavior. One possible reason for this finding may be that, compared with past behavior, attitudes were of secondary importance in accounting for variance in intentions even for action-oriented people. Future research might investigate this issue with behaviors that are less under the influence of prior behavior than is the case for coupon usage. Another reason might be that the moderate power of the statistical tests prevented us from detecting an effect. A replication with a larger sample size would be necessary in this regard.

The importance of past coupon-usage behavior in subsequent decisions to use coupons for grocery shopping was also confirmed. The claim that variables external to the Fishbein-Ajzen model (e.g., *PB*) can influence intentions only *indirectly* (i.e., through *A* and *SN*) seems unjustified, at least in this context. The proportion of variance in intentions that was accounted for by attitudes, subjective norms, and prior behavior was 58 percent. This effect compares with 37 percent when prior behavior is not included as an antecedent. Hierarchical regression analysis shows that the incremental difference in R^2 is significant ($F(2,143) = 35.0, p < .001$). These findings show that, even though attitudes and subjective norms (the two constructs posited as the only direct antecedents of intentions by the theory of reasoned action) explain a fair amount of the variance in intentions, past behavior adds a sizable increment.

Although a person's prior history of using coupons was the major determinant of intentions, it should not be concluded that people use coupons solely out of habit or even mindlessly. The findings reveal that the effects of past behavior were primarily on intentions, but not directly on future behavior. These results are consistent with previous research finding a path from past behavior to intentions but are inconsistent with previous research finding a path from past behavior to behavior (see, e.g., Bentler and Speckart 1979, 1981; Fredricks and Dossett 1983). However, the behaviors investigated in the previous studies may not have been under volitional control; for example, the target behaviors (e.g., consumption of alcohol, marijuana, and hard drugs) in some studies (e.g., Bentler and Speckart 1979) are likely to have been under more habitual than volitional control, and intentions failed to significantly predict behavior in some instances (Bentler and Speckart 1979, 1981; Fredricks and Dossett 1983; see Bagozzi et al. [1989] for a detailed discussion of this issue).

On the other hand, intentions significantly influenced subsequent behavior in this study. Thus, behavior was under volitional control for the subjects under study. It seems more likely that people's prior experiences with coupons serve as one informational input to the decision to use coupons, reflecting in part perhaps the extent of perceived behavioral control, as suggested by Ajzen (1987). Whatever the exact mechanism may be, prior behavior leads to more than merely a change in the quality of attitudes, since attitudes do not mediate all of the effects of past behavior on intentions.

Some caveats are in order. One limitation is that the study was conducted with female staff members at a university. Although the target behavior might have been more meaningful to them than to students, they still constitute a convenience sample. Furthermore, the sample size was rather small. Another limitation is that not everyone who filled out the first questionnaire also responded to the second questionnaire. However, the dropout rate was fairly small at 18 percent. Most of this attrition is attributable to the time of year of the study, summer, in which some respondents were absent at the second questioning because of vacations. Also, this study was conducted with a single behavior. Future research should examine whether the findings are generalizable to other behavioral domains.

Finally, the study relied on self-reports of coupon-usage behavior. Reported and actual coupon usage is likely to differ, and this difference could be another limitation. There might have been demand effects among subjects such that they falsely reported coupon usage to match their previously stated intentions and past behavior. Such demand effects might have strengthened the relationships among past behavior, intentions, and behavior. Alternatively, the first questionnaire might have sensitized respondents to become more aware of coupon-usage behavior and may have actually increased such behavior; that is, the act of measurement at wave one may have produced changes in the phenomenon under investigation. Thus, the self-reported coupon usage in wave two might have been overreported either because of demand effects (e.g., reporting bias to be consistent with stated intentions or past behavior) or because of reactivity (e.g., actual changes in behavior produced by the act of measurement). More unobtrusive measures would be useful in this regard.

However, the breakdown of coupon usage by source and product category should have reduced any systematic error in reporting actual usage. By listing 21 product categories for which coupons are commonly used and incorporating six alternative sources of coupons for each category, the measurement procedure should provide more accurate estimates of coupon-usage behavior than a single-item scale. In general, self-report measures might be biased in the direction of cognitive consistency. Among self-report measures, however, we believe that the breakdown of coupon usage should reduce such error in reporting actual usage. If we had asked a very general question (e.g., "How many coupons did you use last week?" with endpoints of "none" and "a lot"), demand effects could indeed have been a problem. People might have remembered what they said the week before, and their responses to the question would have been biased accordingly. However, it should be much more difficult to be consistent when people have to enumerate how many coupons they used in each of 21 categories and from each of six sources.

CONCLUSION

Coupon-usage behavior is a common phenomenon in today's consumer society. The results of this study confirm the conclusions of Shimp and Kavas (1984) that the theory of reasoned action is useful in specifying the antecedents of coupon usage for grocery shopping. However, our findings also show that prior behavior is a significant determinant of the decision to use coupons again. In addition, the study indicates that, as consumers become action oriented (as opposed to state oriented), their intentions are guided more by attitudes than by subjective norms, but when they become state oriented (as opposed to action oriented), their intentions tend to be based more on subjective norms and less on attitudes. Thus, our results add to the growing body of research showing that certain individual difference variables systematically modify the pattern of relationships among constructs in the theory of reasoned action.

APPENDIX

Kuhl's (1985) Decision-related State- versus Action-Orientation Scale

1. If I had to work at home
   ——— I would often have problems getting started.
   ——— I would usually start immediately.
2. When I want to see someone again
   ——— I try to set a date for the visit right away.
   ——— I plan to do it some day.
3. When I have a lot of important things to take care of
   ——— I often don't know where to start.
   ——— it is easy for me to make a plan and then stick to it.
4. When I have two things that I would like to do and can do only one
   ——— I decide between them pretty quickly.
   ——— I wouldn't know right away which was most important to me.
5. When I have to do something important that's unpleasant
   ——— I'd rather do it right away.
   ——— I avoid doing it until it's absolutely necessary.
6. When I really want to finish an extensive assignment in an afternoon
   ——— it often happens that something distracts me.
   ——— I can really concentrate on the assignment.
7. When I have to complete a difficult assignment
   ——— I can concentrate on the individual parts of the assignment.
   ——— I easily lose my concentration on the assignment.
8. When I fear that I'll lose interest during a tedious assignment
   ——— I complete the unpleasant things first.
   ——— I start with the easier parts first.
9. When it's absolutely necessary that I perform an unpleasant duty
   ——— I finish it as soon as possible.
   ——— it takes a while before I start on it.
10. When I've planned to do something unfamiliar during the following week
   ——— it can happen that I change my plans at the last moment.
   ——— I stick with what I've planned.
11. When I know that something has to be done soon
   ——— I often think about how nice it would be if I were already finished with it.
   ——— I just think about how I can finish it the fastest.

12. When I'm sitting at home and feel like doing something
——— I decide on one thing relatively fast and don't think much about other possibilities.
——— I like to consider several possibilities before I decide on something.
13. When I don't have anything special to do and am bored
——— I sometimes contemplate what I can do.
——— it usually occurs to me soon what I can do.
14. When I have a hard time getting started on a difficult problem
——— the problem seems huge to me.
——— I think about how I can get through the problem in a fairly pleasant way.
15. When I have to solve a difficult problem
——— I think about a lot of different things before I really start on the problem.
——— I think about which way would be best to try first.
16. When I'm trying to solve a difficult problem and there are two solutions that seem equally good to me
——— I make a spontaneous decision for one of the two without thinking much about it.
——— I try to figure out whether or not one of the solutions is really better than the other.
17. When I have to study for a test
——— I think a lot about where I should start.
——— I don't think about it too much; I just start with what I think is most important.
18. When I've made a plan to learn how to master something difficult
——— I first try it out before I think about other possibilities.
——— before I start, I first consider whether or not there's a better plan.
19. When I'm faced with the problem of what to do with an hour of free time
——— sometimes I think about it for a long time.
——— I come up with something appropriate relatively soon.
20. When I've planned to buy just one piece of clothing but then see several things that I like
——— I think a lot about which piece I should buy.
——— I usually don't think about it very long and decide relatively soon.

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