

Belief Importance in Expectancy-Value Models of Attitudes¹

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In this study, 312 respondents were asked to indicate their attitude toward smoking and their smoking behavior. Attitudes were assessed by a direct attitude measure (4 items) and a series of 15 belief statements about the possible consequences of smoking. Next, respondents were asked to select the 3 consequences they found most important. Attitude scores derived from these important beliefs were more predictive of behavior than those based on all 15 beliefs, and far superior to attitude scores based on the remaining 12 beliefs. Differences between the 2 groups (smokers vs. nonsmokers) were more pronounced when attitude scores were based on important beliefs, and disappeared for scores based on nonselected, less important beliefs. It is argued that incorporating belief importance in expectancy-value models helps to assess the structure of attitudes and could improve our insight in the determinants of behavioral preference.

Some considerations are more important determinants of attitudes than others. For instance, immediate positive consequences of certain risky practices might outweigh longer term negative consequences, or the maximum speed of a car might receive more weight than its safety. This article investigates the role of the importance of beliefs about possible consequences in the context of expectancy-value models of attitude and behavior. It will be argued that belief importance could help to improve the descriptive validity of these models and improve our insight into the structure of attitudes. This will be illustrated by a study of cigarette smoking.

Two of the prevailing expectancy-value models are the theory of reasoned action (TRA; Fishbein & Ajzen, 1975) and the theory of planned behavior (TPB; Ajzen, 1991). Both are based on subjective expected utility (SEU) theory (Edwards, 1954). SEU theory presents a simple mathematical model of

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decision making in which people are assumed to assess the expected utility or desirability of alternative actions and select the action with the highest SEU. The SEU is the sum of the perceived likelihood of each outcome multiplied by the utility or desirability of that outcome

$$SEU_j = \sum_i P_{ij} \cdot U_{ij} \quad (1)$$

where SEU_j is the SEU of action or behavioral alternative j , P_{ij} is the perceived probability of outcome i of action j , U_{ij} is the subjective utility or desirability of outcome i of action j . The SEU of an action thus depends on the likelihood and evaluation of the various consequences of that action. This basic principle was applied to attitudes by Fishbein in the 1960s, and the most comprehensive overview of his approach can be found in Fishbein and Ajzen (1975).

In Fishbein and Ajzen's (1975) TRA, attitudes are assumed to be based on the summed products of the likelihood of consequences of behavioral actions and the evaluation of these consequences. Thus, the more positive the consequences that are associated with a specific behavior and the more likely their occurrence, the more attractive is the behavior. The TRA has been applied to a wide variety of health-related behaviors. Overall, results of this research show that the model provides adequate predictions of health behavior (see Sheppard, Hartwick, & Warshaw, 1988, for a meta-analysis; see also Ajzen, 1996). Ajzen (1985, 1991) argued that support for the TRA is strongest for behaviors that are under volitional control, and noted that many behaviors are *not* under (total) volitional control. For instance, one could have the intention to stop smoking but simply fail to do so due to one's limited ability to sustain this behavior. Ajzen incorporated perceived behavioral control in his revised model of the TRA. His model has also been applied to various health behaviors (see Conner & Sparks, 1996, for an overview).

Both the TRA and the TPB assume that attitudes are based on a rational and more or less complete cost-benefit analysis of the various (possible) consequences of behavioral alternatives. Fishbein and Ajzen (1975) argued that people generally base their attitudes on five to nine salient beliefs about possible behavioral consequences. Van der Pligt and Eiser (1984) pointed out that this assumption is not corroborated by research in the area of behavioral decision making. This research points to the limited information processing capabilities of human decision makers. For instance, the multiplicative rules presumed by SEU theory and expectancy-value approaches such as the TRA and the TPB are quite difficult to follow, and it seems unrealistic to expect people to apply these rules, especially when there are many relevant outcomes or consequences and varying probabilities associated with each of these

outcomes. Generally, people tend to base their decisions on pragmatic decision-making strategies and rely on simplifying heuristics and decision rules (Payne, Bettman, & Johnson, 1993).

Although it now seems to be generally accepted that research methods requiring respondents to combine large sets of behavioral beliefs and outcome evaluations do not provide an adequate description of the processes by which people form attitudes or make decisions (see also Baron, 1994; Edwards, 1992; Fischhoff, Goitein, & Shapira, 1982; Fishbein, 1993; van der Pligt, 1996), common practice in research suggests otherwise. Research using the models of Ajzen and Fishbein often requires respondents to rate 20 or more possible consequences of their behavior. In their overview, van der Pligt and Eiser (1984) describe studies of health behavior that include as many as 50 consequences to be rated in terms of their probability and desirability. They argue that it is difficult to know the significance of being able to predict behavior on the basis of such large numbers of consequences associated with behavioral alternatives. Moreover, it is extremely unlikely that respondents use all of these aspects in their decision making. Van der Pligt and Eiser propose allowing for individual or group differences and assessing which consequences are seen as important or salient for specific individuals or groups. They argue that such an approach could improve our insight into the structure of attitudes and reduce the analysis of the decision-making process to manageable and more realistic proportions.

Fishbein and Ajzen (1975) acknowledge that for any given individual, only a relatively small number of beliefs are likely to determine his or her attitude. Van der Pligt and Eiser (1984) use the term *dimensional salience* in relation to this issue. This term is related to what Fishbein and Ajzen (1975) call *importance of beliefs*. They describe three different ways in which the term *importance* has been used in the literature. These are (a) the perceived importance of a specific consequence for the person; (b) the perceived importance of a consequence as a defining characteristic of the object; and (c) the perceived importance of a consequence or attribute as a determinant of the person's attitude. They expect the first usage to be highly related to the polarity of the consequence's evaluation, whereas the second usage is expected to be closely (but not perfectly) related to the subjective probability of an association between the attitude object and the consequence. In this study, we focus on the third usage of the term importance; that is, the perceived importance of a consequence or attribute as a determinant of one's attitude.

Belief importance is also related to the *salience* of beliefs. Higgins (1996) defines salience as something about a stimulus event that occurs on exposure and draws attention selectively to a specific aspect of the event. Salient aspects are likely to be more accessible when judging an attitude object.

Salience of beliefs is usually operationalized in terms of frequency of elicitation. More salient beliefs are expected to be mentioned more often when exposed to the attitude object. There is some evidence that salient beliefs are more accessible, as indicated by shorter response latencies (Ajzen, Nichols, & Driver, 1995). We would also expect reduced response latencies for important beliefs. Our own recent findings (van Harreveld, van der Pligt, & de Vries, 1998) confirm this and show reduced response latencies for beliefs selected as important.

Fishbein and Ajzen (1975) argue that subjective estimates of perceived importance, in the sense of relative weights, bear little or no resemblance to empirically derived weights. In their view, subjective estimates of the relative importance of an attribute are not likely to show a high correspondence with the weights obtained in a multiple regression analysis. This accords with Nisbett and Wilson's (1977) view that the quality of introspection about judgmental processes tends to be limited. Fishbein and Ajzen conclude that none of the different interpretations of belief importance can be used to derive measures that will identify important versus less important beliefs. They also reject the standard statistical method for deriving importance; that is, correlating the Belief \times Evaluation outcome of each attribute with the overall attitude. These correlations (and hence regression weights) are objective indexes of importance but provide no evidence about causality. Thus, they state that it is "inappropriate to assume that a high correlation indicates an important *determinant* of attitude or that a low correlation is evidence that the belief is *not* an important determinant of attitude" (Fishbein & Ajzen, 1975, p. 222, italics as in original).

SEU theory does not take into account which outcomes or beliefs are most relevant to a given decision. Not surprisingly, belief importance has received limited attention in attitudinal research based on SEU theory. Both the TRA and the TPB assume that salient beliefs may well differ from individual to individual and from population to population. Unfortunately, neither theory incorporates this aspect at operational level. Multi-attribute utility theory (e.g., Keeney & Raiffa, 1993) pays more attention to personal differences in the importance of the various consequences of behavior, with the aim of preventing a proliferation of consequences, some of which may be so insignificant relative to others that they could be excluded from the analysis without having a clear effect on the decision maker. Research in this tradition tends to rely on a direct assessment of decision weights by simply asking respondents to assign relative (numerical) weights to the various consequences.

The implications of our reasoning are also relevant in the context of health education (see also van der Pligt & de Vries, 1998). Paying attention to the importance of beliefs should help behavioral change programs to focus on consequences that are seen as relevant by the target group. For instance, van der Pligt

and Eiser (1984) report findings indicating that smoking and nonsmoking adolescents clearly emphasize different consequences of smoking and nonsmoking. This issue was studied in more detail by Eiser, van der Pligt, and Friend (1983). They used open interviews with focus groups, assuming that arguments generated spontaneously in the course of free discussions would reflect the attitude structure of the various individuals or groups concerned. Their main prediction was that smokers would see different aspects of that issue as salient or subjectively important than would nonsmokers.

The results of content analysis showed clear differences in the aspects which were most salient to smokers and nonsmokers, in the sense of being most likely to be introduced by them into the discussion. Nonsmokers, as would be expected, were more likely to mention the costs of smoking. Smokers tended to emphasize the benefits and pleasure of smoking, were more inclined to challenge the assumption that smoking causes lung cancer, and were more likely to argue that smoking is no worse than various other habits.

Budd (1986) also assessed the salience of beliefs in a study of students' attitudes toward cigarette smoking. In his study, respondents were presented with a total of 18 beliefs and were required to select the 5 beliefs most important to them personally. His results showed that belief-attitude correlations with the 5 most important beliefs were considerably stronger than correlations with the 13 remaining, less salient beliefs ($r = .62$ vs. $.07$). Budd's study is the exception rather than the rule. Many studies have employed the TRA or the TPB to investigate smoking behavior. Sherman et al. (1982) and Sutton (1989) investigated smoking initiation. Others have focused on the frequency of smoking (e.g., Chassin et al., 1981; Fishbein, 1982; Grube, Morgan, & McGree, 1986) or cessation of smoking (e.g., De Vries & Kok, 1986; Marin, Marin, Perez-Stable, Otero-Sabogal, & Sabogal, 1990). More recent examples applying the TPB to smoking are Babrow, Black, and Tiffany (1990), and Godin, Valois, Lepage, and Deshamais (1992). None of these studies, however, included measures of belief importance.

In the present study, we assess the probability and evaluation of beliefs and also ask respondents to select the (three) most important beliefs or consequences. Attitude scores based on important and less important beliefs will be related to a direct attitude score and to behavior. The present study aims to verify earlier findings concerning the relationship of important versus less important beliefs with attitudes. We attempt to extend these findings by also including a measure of behavior, and by addressing more explicitly Fishbein and Ajzen's view that a measure of belief importance could well be highly redundant due to the expected relationship with the probability ratings of the beliefs and/or the polarity of the evaluation of these beliefs. Moreover, we expect that indirect, belief-based attitude scores will diverge more clearly between

groups when based on selected important beliefs by each of these groups than when based on less important beliefs.

Our predictions can be summarized as follows: First, attitude scores based on important beliefs are expected to be as closely related to direct attitude scores and behavior as scores based on all belief items. Moreover, we expect attitude scores based on selected, important beliefs to be more closely related to direct attitude scores and behavior than attitude scores derived from the remaining beliefs. Second, attitude scores of smokers and nonsmokers will differ more when based on important beliefs than when based on all beliefs and (especially) when based on the less important beliefs. Third, we expect the two groups (smokers vs. nonsmokers) not only to differ in terms of the probability and the evaluation of the various consequences of smoking, but also in the importance attached to these consequences. Thus, nonsmokers will focus on different beliefs about smoking than those focused on by smokers. Finally, we assess whether belief importance is related to the subjective probability of the beliefs and/or the polarity of their evaluation.

Method

Participants

A total of 322 first-year psychology students at the University of Amsterdam were administered a questionnaire on smoking cigarettes in the context of a test session in which several other questionnaires were also completed. Ages of respondents ranged from 18 to 37 years ($M = 22$ years, $SD = 3.5$ years); 110 were male, 212 were female. Ten participants who returned incomplete questionnaires were excluded from the analysis. All analyses are based on the remaining 312 respondents.

Measures

Smoking status was assessed by three questions. First, respondents were asked whether or not they smoked. Second, smokers were asked to indicate their daily cigarette consumption in terms of four response categories (fewer than 5, between 5 and 10, more than 10 but less than 20, or more than 20). Third, respondents were asked to indicate how long they had smoked cigarettes in terms of four categories ranging from less than 1 year to more than 10 years.

Attitudes toward smoking cigarettes were assessed by a four-item measure that asked respondents to indicate on 9-point semantic differential scales their general attitude toward smoking. The four items were bad/good,

pleasant/unpleasant, for/against, and favorable/unfavorable. These four items were combined to form a direct assessment of attitude toward smoking. The scale proved to be coherent, as indicated by a Cronbach's alpha of .87.

Belief-based attitudes were measured with a 15-item measure that asked respondents to rate both the likelihood of the various possible consequences of smoking and the evaluation of these consequences. The probability of each consequence or belief (b) was assessed on a 9-point rating scale ranging from 1 (certainly not) to 9 (definitely). The evaluation (e) of each consequence was assessed on a 9-point scale ranging from -4 (extremely negative) to +4 (extremely positive). Summing the Probability \times Evaluation products resulted in the score for each respondent. More information about the 15 belief statements is provided in the Results section.

Finally, we asked respondents to indicate their three most important beliefs. Previous research has indicated that asking respondents to select five beliefs and to rank them in terms of importance can be quite difficult, and that the first three selected beliefs tend to capture the set of most important beliefs of individuals (van der Pligt, 1992). For this reason, we decided to ask respondents to select the three most important beliefs. Respondents were again presented with the 15 belief statements and were asked to select the most important belief, the second most important belief, and the third most important belief.

Results

Correlations among the variables were examined to test the hypotheses about the relationships among the variables. The variables involved are direct attitude, belief-based attitude based on all 15 beliefs, belief-based attitude based on the 3 most important beliefs, and belief-based attitude based on the remaining 12 beliefs.

Table 1 presents the correlations between the various attitude measures and shows similar correlations for the attitude score based on the three most important beliefs and that based on all beliefs with both the direct attitude score and smoking status. The mean score based on the three most important beliefs was a significantly better predictor of behavior ($r = .52$) than the attitude score based on all beliefs ($r = .37$). The significance of the difference between the two correlation coefficients was assessed by calculating a t value as proposed by Ferguson (1966). The t value for this difference was 6.73 ($df = 309$, $p < .001$). The correlation between the attitude score based on the 12 less important beliefs and behavior was .06; thus, attitude scores based on beliefs seen as less important were not related to behavior (smoking status) at all. Correlations of the two ($b \times e$) attitude scores (based on all beliefs and based on the three most important beliefs only) with a direct measure of attitude were nearly identical (r s of

Table 1

Correlations Between the Various Attitudinal Measures and Behavior (Smoking vs. Nonsmoking)

	A	B	C	D	E
Behavior (A)	1.00	.61***	.37***	.52***	.06
Direct attitude score (B)		1.00	.64***	.63***	.15**
Mean score based on all beliefs (C)			1.00	.67***	.62***
Mean score based on the 3 most important beliefs (D)				1.00	-.15**
Mean score based on 12 less important beliefs (E)					1.00

** $p < .01$. *** $p < .001$.

.64 and .63, respectively), showing that the explained variance in attitude is as high for the 3-item attitude score as for the score based on all 15 belief items.

The attitude score based on the 12 less important beliefs correlated only .15 with the direct attitude measure. The attitude score based on these less important beliefs is also not significantly related to smoking status or to the score based on the three salient beliefs. Finally, an attitude score based on the first selected, most important belief also correlated with behavior (.38), the direct attitude measure (.49), and the attitude score based on all beliefs (.54). This score also correlated negatively with the attitude score based on the 12 less important beliefs (-.13). All in all, our predictions concerning the relative predictive power of important versus less important beliefs were confirmed. Results show clear significant differences between the correlations of a belief-based attitude score based on the 3 most important versus all 15 beliefs and behavior. Both belief-based attitude scores resulted in much higher correlations with the direct attitude score and behavior as compared to the attitude score based on the 12 less important belief items. Further analyses in which the direct attitude score and behavior were regressed on the three most important beliefs did not reveal significant differences between the β -values assigned to the three selected beliefs. Thus, an attitude score with statistically derived (β) weights was not more closely related to the direct attitude measure or to behavior than the unweighted, summed score based on the three selected beliefs.

Table 2

Mean Score for Important, Less Important, and Total Set of Beliefs for Smokers and Nonsmokers

	Smokers ($n = 166$)	Nonsmokers ($n = 146$)	$F(1, 311)$
Important beliefs (3)	-11.55	-43.95	116.25***
Less important beliefs (12)	-3.30	-2.90	1.00
All beliefs (15)	-4.80	-8.29	50.62***

Note. Scores could range from -36 (extreme negative utility) to +36 (extreme positive utility).

*** $p < .001$.

Next we computed the mean score for each respondent based on all 15 beliefs, the 3 most important beliefs, and the 12 less important beliefs. Results (Table 2) show that the overall expected utility is negative for both groups, so even smokers have a slightly negative utility score. In accordance with our expectation, the two groups differ most profoundly in their attitude scores based on the 3 most important beliefs, less so on the utility score based on all 15 beliefs, and not at all when comparing their utility scores based on the 12 less important salient beliefs.

Table 3 presents the mean score for each belief statement for smokers and nonsmokers, and the percentage of smokers and nonsmokers who select each consequence as one of the three most important. The results reflect considerable differences between the two groups. The belief items contained seven positive consequences of smoking and eight negative consequences. The differences in perceived utility are most pronounced for the negative consequences, with less negative utility scores for the smokers than for the nonsmokers. The most extreme differences are obtained for the negative items "smelly," "addictive," and "antisocial." The two groups hardly differed in their perceptions of health consequences (Items 7 and 14). The positive item that results in the most pronounced difference between the two groups concerns the facilitation of social intercourse, which is associated with a higher utility score for the smokers.

Belief importance is indicated in the last two columns of Table 3. These results confirm the expectation that different beliefs are important for the two groups. Smokers tend to focus on the more immediate consequences of smoking (e.g., helps me to relax, fosters social intercourse). Fewer smokers than

Table 3
Mean Score and Belief Importance for Each Item for Smokers and Nonsmokers

Belief item	Score ^a		F(1, 311)	Importance ^b	
	Smokers (n = 166)	Nonsmokers (n = 146)		Smokers (%)	Nonsmokers (%)
1. Reduces fitness (-)	-16.6	-20.3	8.04**	21.7	22.6
2. Reduces nervousness (+)	10.9	8.8	2.06	12.7	14**
3. Increases coughing (-)	-14.0	-16.9	4.61*	5.4	4.8
4. Helps to cope (+)	10.4	9.7	0.26	16.3	4.1***
5. Helps to relax (+)	19.6	16.8	5.87*	43.4	6.8***
6. Increases one's popularity (+)	4.1	4.8	0.81	1.8	0.0
7. Bad for one's health (-)	-26.1	-29.4	8.47**	43.4	71.9***
8. Fosters social intercourse (+)	20.9	14.5	34.02***	37.3	6.8***
9. Is smelly (-)	-19.2	-27.4	51.48***	9.0	24.7***
10. Prevents getting too heavy (+)	8.7	12.0	8.80**	2.4	0.7
11. Is addictive (-)	-19.9	-28.0	40.41***	31.3	33.6
12. Is antisocial (-)	-16.7	-24.3	38.15***	10.2	42.5***
13. Leads to tightness of the chest (-)	-16.7	-22.8	30.84***	1.8	9.6**
14. Increases likelihood of lung cancer and heart diseases (-)	-29.6	-32.6	8.31**	56.0	70.5**
15. Increases the ability to concentrate (+)	12.2	10.4	3.70	6.0	0.0**

Note. ^aScores could range from -36 (extreme negative utility) to +36 (extreme positive utility). ^bScores represent the percentage of respondents who selected the item as one of the three important considerations; the percentages do not add up to 300, due to rounding. Differences between the two groups were tested with chi square. * $p < .05$. ** $p < .01$. *** $p < .001$.

nonsmokers selected health-related consequences as important. More than 70% of the nonsmokers selected Item 7 ("Bad for one's health") and 14 ("Increases likelihood of cancer and heart diseases"), while 42% and 56%, respectively, of the smokers selected these belief items.

Next we carried out a discriminant analysis in order to establish which scores discriminated most between the two groups. The outcomes confirm the impression provided by Table 3, with short-term consequences constituting the largest differences between the two groups. The first belief to enter the analysis concerned the smell of smoking, with a Rao's V of 50.32. The next belief to enter the equation concerned the facilitation of social intercourse (change in Rao's $V = 40.61$). The only health-related outcome of smoking that entered the equation was "tightness of the chest" (change in Rao's $V = 10.50$). Finally, weight considerations discriminated between the two groups, as indicated by a modest but significant ($p < .05$) change in Rao's V (5.72). These four belief items were associated with a canonical correlation of .51. With the help of the resulting canonical discriminant functions, 70% of the respondents could be correctly classified as smokers or nonsmokers.

Finally, we investigated whether belief importance correlated with the extremity or polarity of the evaluation of the specific consequence or with its probability. As argued earlier, a high correlation with the former would imply that our measure of importance is related to the perceived importance of the consequence for the individual; a high correlation with the probability rating would imply that our measure of importance is more closely related to the extent to which the consequence is seen as a defining characteristic of the behavior. To test this, we computed for each belief item the correlation between perceived importance and (a) the evaluative extremity of that particular consequence, and (b) the probability of that consequence. The correlation between evaluative extremity and importance ranged from -.01 to +.32. The average correlation between evaluative polarity and importance was a modest .14. Correlations between importance and probability ratings ranged from +.07 to +.39, with the overall average being .21. These findings argue against the assumption that importance ratings do not add to the usual measures of belief strength and evaluation because of their high correlation with these measures, and support our view that belief importance constitutes a separate factor that needs to be included in expectancy-value models of behavior.

Discussion

The results of this research show that including a measure of perceived importance of the consequences or attributes of behavioral alternatives (smoking vs. nonsmoking) helps us to understand the attitudinal structure underlying

behavioral preferences and confirms earlier research on this issue (e.g., Budd, 1986; Eiser & van der Pligt, 1979; van der Pligt & Eiser, 1984). Our results show that smokers do not necessarily disagree with the possibility of long-term adverse health consequences of smoking; rather, they simply attach less weight to these consequences. Smokers tend to regard more immediate consequences, such as relaxation and social intercourse, as more important.

Adding perceived importance as a separate measure in attitudinal research could have considerable advantages. Our preference for incorporating a subjective measure of importance is primarily related to the fact that people's decisions about behavioral practices tend to be based on a limited number of salient or subjectively important considerations. Our findings show that a measure based on the selection of a small number of subjectively important beliefs is more closely related to attitudes and behavior. Although all of the belief items included in this study had been used before and are likely to fall into the category of "modally salient" beliefs, a measure incorporating all of these beliefs shows a significantly lower correlation with behavior, suggesting that including all beliefs can dilute the measure of attitudes, reduce the sensitivity of the belief-based attitude measure, and obscure differences between attitudinal groups. This is very evident when comparing the scores based on the 3 most important beliefs and the 12 less important beliefs. The latter score is only marginally related to attitude and behavior. Moreover, attitudinal differences between the two groups disappear when one compares scores based on the 12 less important belief items.

Belief importance could thus help to provide more insight into the structure of attitudes and tell us which aspects of a behavior are regarded as salient or important. If a simple procedure for assessing the subjective importance of beliefs results in an adequate assessment of attitudes and behavior, this could help us to understand the underlying decision-making processes of specific subgroups. In applied areas such as health psychology, it could also help to tailor health-education interventions. Too often, intervention programs seem to be based upon the frame of reference of those who are already convinced of the value of the recommended behavior. Knowing the important beliefs that underlie the attitudes of the target groups of an intervention or health-education effort should help to shape interventions aiming to change health-related behavior. Assessing the perceived likelihood, evaluation, and importance of possible consequences makes it possible to determine whether the primary aim of an intervention program should be to change beliefs about the likelihood of specific consequences, the evaluation of these consequences, or their salience. Applied research and practice could therefore benefit from the improved insight into the frame of reference of individuals or groups when judging behavioral alternatives with different implications for one's health.

Further research is needed to compare the reliability and validity of importance scores obtained with the simple selection task used here with scores derived from other methods. Our findings suggest that the selection task used in this study is not redundant with either the likelihood ratings of the beliefs or the polarity of the evaluations of the beliefs. Correlational analyses of scores based on all 15 beliefs generally showed modest and nonsignificant correlations between the evaluative polarity and perceived likelihood of the beliefs and their importance. Jaccard, Brinberg, and Ackerman (1986) compared six methods of assessing belief importance. Some of these (e.g., paired comparisons and information-search indexes) are quite elaborate and time consuming and cannot easily be incorporated into an attitude questionnaire. Others, such as direct ratings of belief importance, could also be used to further validate the proposed selection task. Further research using more elaborate methods could help to develop both the conceptual foundations of measures of belief importance and provide guidelines for measuring the subjective importance of beliefs underlying attitudes and behavior.

Another issue that warrants further attention is the difference between what Fishbein and Ajzen call *salience* and what we have referred to as *belief importance*. In our view the two are related. Individually important beliefs are bound to be salient, and we question whether the two constructs can be empirically distinguished. Our recent research (van Harreveld et al., 1998) confirms that individually selected important beliefs are more accessible, as shown by shorter response latencies and improved performance in memory-related tasks. Our main point is that adding a simple measure of belief importance helps to detect the belief structure underlying the attitudes of different subgroups and is also likely to be more descriptive of the decision processes underlying their attitudinal decisions. Adding belief importance as a separate measure creates a more sensitive, belief-based measure of attitudes that provides more insight into the differences between groups known to differ with respect to attitudinally relevant behavior.

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