

In R. E. Petty and J. A. Krosnick (Eds.),
Attitude Strength: Antecedents and Consequences.
Mahwah, NJ: Erlbaum
(1995)

pp. 433-454

Attitude Strength, Attitude Stability, and the Effects of Analyzing Reasons

Maureen Wang Erber
Northeastern Illinois University

Sara D. Hodges
Timothy D. Wilson
University of Virginia

An important part of most definitions of attitudes is that they persist over time. Allport (1935) noted that attitudes "often persist throughout life in the way in which they were fixed in childhood or in youth" (p. 814), whereas Sherif and Cantril (1947) argued that "attitudes, once formed, are more or less enduring states of readiness" (p. 7). Petty and Cacioppo (1981) defined an attitude as "an enduring positive or negative feeling about some person, object, or issue" (p. 7). Consistent with these definitions, there is evidence that attitudes can persist for years or even decades (e.g., Bennett, 1975; G. D. Bishop, Hamilton, & McConahay, 1980; Brown, 1970; Hovland, 1959). Marwell, Aiken, and Demerath (1987), for example, found that the political attitudes of civil rights workers changed little over the course of 20 years. Other kinds of attitudes are also notorious for their resistance to change, such as prejudiced and racist opinions.

Recently, however, a considerable amount of research has been conducted that leads to the opposite conclusion: Attitudes fluctuate over time, and depend on what people happen to be thinking about at any given moment. We have found, for example, that when people are asked to think about why they feel the way they do about an attitude object, they often change their minds about how they feel. We have observed such attitude change when people analyze their reasons toward such diverse things as political candidates (Wilson, Kraft, & Dunn, 1989), dating partners (Wilson, Dunn, Bybee, Hyman, & Rotondo, 1984; Wilson & Kraft, 1993), art posters (Wilson, Lisle, Schooler, Hodges, Klaaren, & LaFleur, 1993), food items (Wilson & Schooler, 1991), vacation pictures

(Wilson et al., 1984), and puzzles (Wilson & Dunn, 1986; for reviews, see Wilson, 1990; Wilson, Dunn, Kraft, & Lisle, 1989; Wilson & Hodges, 1992).

We have been struck by how labile people's attitudes seem to be in our studies. Simply by asking people why they feel the way they do, they change their minds about how they feel, at least temporarily. This finding is consistent with a growing body of research indicating that attitudes are constructed from whatever information happens to be currently accessible. Several authors have suggested that people often have a large, conflicting database relevant to their attitudes on any given topic and that the attitude people have at any given time depends on the subset of these data to which they attend (Feldman & Lynch, 1988; Schwarz & Bless, 1992; Strack & Martin, 1987; Tesser, 1978; Tourangeau & Rasinski, 1988; Wilson & Hodges, 1992; Zaller & Feldman, 1992; Zanna & Rempel, 1988). If so, then attitudes will be unstable to the extent that the information that is accessible at one time implies a different evaluation than the information that is accessible at a later time. We refer to this approach as the *attitudes-as-constructions* model, which assumes that people's attitudes vary in an almost whimsical fashion, depending on the information about the attitude object that happens to come to mind.

This chapter is concerned with the apparent contradiction between the attitudes-as-constructions model and the considerable evidence for attitude stability. The solution that would seem to make the most sense—and which is central to the topic of this book—is that attitude stability depends on attitude strength. Some attitudes are strong and resistant to change, such as those anchored by our basic values and worldviews. Many of these attitudes seem to stay with us for years, like treasured possessions (to use Abelson's, 1986, analogy). Other attitudes are held with much less conviction, and are more likely to change as the person encounters new contexts and new information.

This assumption makes intuitive sense, and is of considerable practical importance. If a presidential candidate learns that a majority of the voters prefer him or her a month before the election, it is critical for the candidate to know how stable these attitudes are. Can he or she be assured that these voters will feel the same way on election day? Many assume that stability depends on how strongly people feel. In a recent exit poll conducted during a presidential primary, for example, voters were asked how certain they were that their choice of candidate was the correct one, with the assumption that people who were certain had strong opinions that were unlikely to change (CBS Evening News, March 17, 1992).

Unfortunately, though, there is a problem with the assumption that attitude stability is predictable from attitude strength: As noted by many of the contributors to this book, attitude strength is not a single construct. Different measures of strength have been found to be remarkably uncorrelated (Abelson, 1988; Krosnick & Abelson, 1991; Krosnick, Boninger, Chuang, Berent, & Carnot, 1993; Raden, 1985; Wilson, Hodges, & Pollack, 1992). In Krosnick and Abelson's (1991) words, different dimensions of attitude strength "are conceptually and empirically separable and may therefore have nonoverlapping effects" (p.

183). It is theoretically possible, of course, that different dimensions of attitude strength could be uncorrelated, but have identical effects on important outcome variables, such as attitude stability. This is what Krosnick and Abelson (1991) concluded in their review: Though uncorrelated, different dimensions have similar effects on attitude-behavior consistency, social perception, and interpersonal attraction. We argue, however, that this is *not* the state of affairs with attitude stability. Different measures of attitude strength are conceptually different, we suggest, and have distinct relationships to attitude stability.

PREDICTING ATTITUDE STABILITY FROM ATTITUDE STRENGTH

Although we do not have the space to present a thorough review, we give several examples of the kinds of strength measures that have been found to predict attitude stability (for more comprehensive reviews see Cook & Flay, 1978; Krosnick et al., 1993; Petty & Cacioppo, 1986).

Affective-Cognitive Consistency. One measure of attitude strength is the consistency of people's beliefs and feelings about the issue (Norman, 1975; Rosenberg, 1960, 1968). People who have consistent cognitions and affect presumably have stronger attitudes, whereas those with inconsistent cognitions and affect presumably have weaker, less stable attitudes. To test this assumption, Rosenberg (1968) assessed people's attitudes toward foreign policy and local university issues at 2- to 3-week intervals. The people with the most stable attitudes were those who had consistent affect and cognitions at Time 1.¹

Conviction. Abelson (1988) suggested that the best measure of attitude strength is one that he terms "conviction," which has three components: emotional commitment (e.g., how much people think their attitudes express the "real you" and are related to their moral beliefs), cognitive elaboration (e.g., how knowledgeable people are and how long they say they have held their current views), and ego preoccupation (e.g., how important people say the issue is and how often they have thought about it). He found that the more conviction people expressed on four different social issues, the more stable their attitudes were over a 1-month period.

¹As noted by Chaiken, Pomerantz, and Giner-Sorolla (ch. 15, this volume), there has been some confusion in the literature about whether this construct is best referred to as *affective-cognitive consistency* or *evaluative-cognitive consistency*. Chaiken et al. argue persuasively that the latter term is more appropriate, because many studies have actually assessed the consistency between people's overall *evaluation* of an attitude object and their valenced cognitions about that object. We use the term *affective-cognitive consistency* to be consistent with a study of ours we report later, in which we compared people's valenced cognitions with a measure that was, we suggest, more a measure of affect than of people's overall evaluation. (This measure is described in Table 17.1, to be discussed shortly.)

Accessibility. Fazio (1986, 1989) argued that accessible attitudes are more stable than inaccessible attitudes. He defined accessibility as the strength of the association between an attitude object and a person's evaluation of it, as assessed by response time (how long people take to rate their attitude). When this association is strong, people are likely to access their attitude whenever the attitude object is encountered, thus reporting the same attitude over time. When this association is weak, people are less likely to access their attitude, and thus will be more influenced by such contextual variables as social norms, thereby lowering the stability of people's reported attitudes. Consistent with this hypothesis, Fazio and Williams (1986) found that people with accessible attitudes toward the 1984 presidential candidates had more stable attitudes. That is, there was more consistency between their reported attitudes toward the candidates several weeks before the election and whom they reported voting for than there was among people with inaccessible attitudes (see also Bassili, 1993).

Message Elaboration. Petty and Cacioppo's (1986) influential model of persuasion, the Elaboration Likelihood Model, argues that attitudes formed via the central route will be more persistent than those formed via the peripheral route. The central route refers to attitudes that are based on a thoughtful consideration of the issues relevant to the attitude (i.e., to "elaborated" attitudes), whereas the peripheral route refers to attitudes that are based on simple cues about which position is most valid. Petty and Cacioppo (1986) and Petty, Haugtvedt, and Smith (ch. 5, this volume) argue that elaborated attitudes will be more stable because they are more rehearsed; based on more enduring, consistent attitude schemas; and held with greater confidence. An elaborated attitude thus becomes stronger than a nonelaborated one, they argue, and more resistant to persuasion. Consistent with this view, Petty, Cacioppo, Haugtvedt, and Heesacker (cited in Petty & Cacioppo, 1986) found that when people formed elaborated attitudes (via the central route), their attitudes were more likely to persist over a 2-week period than when people formed unelaborated attitudes (via the peripheral route). Similarly, Chaiken (1980) found that attitudes were more likely to persist over a 10-day period if people initially based them on a systematic examination of the issues.

Importance. A number of researchers have found that the more important an attitude is to people, the more stable it is (e.g., Converse, 1964; Hahn, 1970; Krosnick, 1988; Schuman & Presser, 1981). Importance is typically measured by asking people how personally important an issue is to them, or how concerned they are about it (e.g., Krosnick, 1988). Krosnick (1988), for example, found that people's attitudes toward social issues were significantly more stable over several months if they rated these attitudes as important.

Ambivalence. A number of researchers have argued that some attitudes are characterized by ambivalence, defined as having both a positive and a negative evaluation of an attitude object (e.g. Bargh, Chaiken, Govender, & Pratto, 1992;

Kaplan, 1972; Thompson & Zanna, ch. 14, this volume). There is some evidence that ambivalence is associated with attitude instability. Bargh et al. (1992) found a significant correlation between ambivalence and instability, such that the more ambivalent people were, the less stable their attitudes were over a 2-day period. To the extent that people's certainty in their beliefs is equivalent to ambivalence (as suggested by Krosnick & Abelson, 1991), similar evidence has been obtained by Pelham (1991). He measured people's certainty about their self-views, and found that these views were less stable among people with low certainty.

Ego-Involvement. According to social judgment theory, people who are involved in an issue—that is, those for whom the attitude is closely related to their self-identity—will have more stable attitudes (Sherif & Hovland, 1961). Ego-involvement is defined as the magnitude of people's latitude of rejection, which is the number of attitudinal positions people find objectionable, relative to the magnitude of their latitudes of acceptance and noncommitment (the number of attitudinal positions people find acceptable or neutral; Sherif, Kelly, Rodgers, Sarup, & Tittler, 1973). We are unaware of studies that have tested this stability hypothesis directly, though Sherif et al. (1973) found some evidence for a related hypothesis: people involved in an issue were more resistant to change in response to a persuasive communication than were people who were uninvolved.

Knowledge. People vary in how knowledgeable they are about an attitude object, and knowledge may relate to how stable an attitude is. Consistent with this view, Wood, Kallgren, and Priesler (1985) found that attitudes held by knowledgeable people were more stable and resistant to attack (see also Wood, Rhodes, & Biek, ch. 11, this volume).

Behavioral Experience. Fazio and Zanna (1981) demonstrated that attitudes are stronger and more accessible when they are based on direct, behavioral experience with the attitude object, and there is some evidence that such attitudes are more stable over time and more resistant to persuasion attempts (Watts, 1967; Wood, 1982).

Why Are Strong Attitudes Stable?

We have just seen that several different measures of attitude strength predict stability, such that the stronger the attitude, the less likely it is to change over time. Several explanations for this finding have been offered, including the following (for a more detailed discussion of these arguments, see Cook & Flay, 1978; Krosnick, 1988; Petty & Cacioppo, 1986): First, strong attitudes are probably anchored by other beliefs and values, making them more resistant to change. If people were to change their basic religious beliefs, for example, many other attitudes and values linked to these beliefs would have to be changed as well.

Second, people are likely to know more about issues they feel strongly about, making them more resistant to counterarguments. Third, people are likely to associate with others who feel similarly on important issues, and these people help maintain and support these attitudes. Fourth, strong attitudes are often more elaborated and accessible, making it more likely that they will be at the tip of the tongue when people are asked how they feel on different occasions. Fifth, people with strong attitudes are likely to attend to and seek out information relevant to the topic, arming them with still more arguments with which to resist attempts to change their minds (Krosnick et al., 1993). (We should note, however, that this tendency might cut both ways. People who seek out information are also more likely to come across counterattitudinal arguments. People with weak attitudes who do not bother to attend to or seek out relevant information may be less likely to encounter such arguments. We return to this issue later.)

Thus, there are several reasons why strong attitudes are stable attitudes, possibly resolving the dilemma we posed earlier (that there is evidence for both attitude stability and instability). Perhaps the answer is simply that weak attitudes are unstable, whereas strong ones persist over time. As we mentioned earlier, however, a problem with this interpretation is that the different measures of attitude strength we have reviewed tend not to correlate with each other. Thus, there is no single, overall construct of attitude strength that moderates attitude stability. The solution may be that each of the different measures captures a different component of attitude strength, each of which has the same relationship to attitude stability. According to this argument, an attitude can be strong in a number of different ways, but in each case, strength is associated with stability.

Another way of stating this is that the attitudes-as-constructions model we mentioned earlier may apply only to attitudes that are relatively weak. That is, when attitudes are weak, people are more likely to construct them from whatever data happen to be accessible to people. If an attitude is strong in any of several respects it may not have to be constructed each time people encounter the attitude object. Instead, people simply recall how they feel, regardless of what information about the attitude object happens to be accessible.

CAN AN ATTITUDES-AS-CONSTRUCTIONS MODEL ACCOUNT FOR ATTITUDE STABILITY?

It is possible, however, to accommodate attitude stability within a model that views all attitudes as constructions. We suggest that there are two ways that attitudes could be stable within the attitudes-as-constructions model, each of which relates to different dimensions of attitude strength. First, let's assume that attitudes are always constructed on the basis of the information about the attitude object that is most accessible. Let's further assume that one type of datum people often store about an attitude object is how they have previously evaluated it.

When they evaluate the attitude object at a later point in time, this prior evaluation is one piece of information that can be accessed and used to construct a new attitude (Judd & Brauer, ch. 3, this volume). If the prior evaluation is strong and accessible, then it is likely to be weighted heavily, leading to a consistent attitude over time. If it is not, there is a greater likelihood that the information that is accessible at Time 2 will be different from what was accessible at Time 1, producing attitude instability. What influences whether the prior evaluation is accessible? Some of the aspects of attitude strength we reviewed earlier are good bets, such as how much conviction people have, how quickly they respond to attitude questions, how elaborated the prior attitude is, how much behavioral experience people have toward the attitude object, and how important the attitude is. These indices of attitude strength may predict how much people's later evaluation is based on a prior evaluation.

There is a second way in which an attitudes-as-constructions model can accommodate attitude stability. Even if people do not have a strong, accessible prior evaluation on which to base their attitude, their attitude will be stable if they use evaluatively consistent information when constructing their attitudes at different points in time. For example, people might not have a strong, accessible evaluation of a particular political candidate. Each time they form an opinion of the candidate, however, the information that is most accessible is generally positive. At Time 1 they might base their attitude on the fact that the candidate agrees with them on abortion and seems smart, whereas at Time 2 they base their attitude on the fact that the candidate has a viable economic plan and is attractive. Consequently, the attitude they construct is consistently positive from one time to the next.

What determines whether the data that are accessible to people will be evaluatively consistent over time? One determinant may be the consistency of people's overall database about the attitude object. If people's beliefs and feelings are generally consistent, then it does not matter which subset of data people use to construct their attitude—the same evaluation will result. If people have an inconsistent set of beliefs and feelings, there is an increased likelihood that the subset of data used to construct an attitude at Time 2 will imply a different attitude than the subset used at Time 1.

The indices of attitude strength we reviewed earlier, then, may be linked to attitude stability in different ways. Some, such as people's level of conviction, amount of elaboration, and response time can be viewed as measures of how likely a prior evaluation will be used when constructing a new attitude. Others, such as affective-cognitive consistency and ambivalence, may relate more to the consistency of people's database, which predicts how likely people are to use different information when constructing a new attitude.

In the remainder of this chapter we discuss evidence relevant to this classification of strength variables into two general types. We should mention two caveats: First, there is not a great deal of research testing this distinction, thus

many of our conclusions will be tentative. Second, we should emphasize that we are not arguing that our scheme is the only way of classifying different measures of attitude strength. Many other schemes, discussed in other chapters in this book, are undoubtedly useful as well. Our distinction has proven to be of some predictive value, however, as we will see.

The data that are most relevant were collected by Wilson et al. (1992). In this study we measured college students' attitudes toward Ronald Reagan on two occasions, separated by several weeks. At an initial laboratory session the participants completed several of the measures of attitude strength we discussed earlier, as listed in Table 17.1. One of these measures was a new one that we devised to provide an additional measure of the consistency of people's database, namely the homogeneity of people's beliefs about the attitude object. As described in Table 17.1, this variable reflects the variance in each individual's valenced beliefs about the attitude object, and is likely to be related to ambivalence. As another measure of the consistency of people's database, we assessed affective-cognitive consistency, using techniques similar to Rosenberg's (1960). It should be noted that these different consistency measures do not have to be correlated. The fact that people have consistent or inconsistent beliefs does not necessarily mean that the average valence of these beliefs is consistent or inconsistent with their affect (see Table 17.1 for a more detailed description of how these variables were measured). As we will see, these two measures were, in fact, uncorrelated with each other.

Several weeks later people took part in what they thought was an unrelated phone survey. As we will soon discuss, some people were first asked to explain why they felt the way they did about President Reagan, to examine the effects of explaining an attitude on attitude stability. Of current concern is the relationship between the different measures of attitude strength and attitude stability in the control condition, where people reported their attitude toward Reagan without analyzing their reasons.

The first question of interest is the relationship between our different measures of attitude strength at Time 1. We performed a principal components factor analysis with a varimax rotation on responses to the different measures, including attitude extremity and amount of media exposure (the number of news stories about Reagan people reported having read or heard; see Table 17.1 for a description of these variables). The measures of knowledge and importance were not included in these analyses, because these variables were part of the measures of cognitive elaboration and ego preoccupation, respectively. On the basis of the eigenvalues, a five-factor solution appeared to fit the data reasonably well (the factor solution is shown in Table 17.2, whereas the correlations between measures are shown in Table 17.3). The first factor corresponds to Abelson's concept of conviction, including his three measures of conviction and the amount of reported behavior relevant to the attitude. The second factor included attitude accessibility, attitude extremity, and, to some extent, ego-involvement. The only variable to load highly on the third factor was our measure of belief homogeneity. Media

TABLE 17.1
Measures of Attitude Strength

<i>Measure</i>	<i>Description</i>
Belief homogeneity	People rated 10 possible accomplishments of the Reagan administration according to (a) how positive or negative each one would be and (b) how much Reagan had achieved each one, both on scales that ranged from -4 to +4. Following Rosenberg (1960), we computed the positivity of subjects' cognitions by multiplying people's responses to (a) and (b) for each item. The homogeneity of people's beliefs was then computed by taking the standard deviation of the 10 belief scores (the products of a × b) for each participant.
Affective-cognitive consistency	Absolute value of the difference between the mean of standardized affect ratings and the mean of standardized cognitive ratings (described above). Affect was measured as suggested by Breckler and Wiggins (1989), by asking people to rate, on semantic differential scales, their "feelings about Ronald Reagan."
Emotional commitment	One of Abelson's (1988) three measures of commitment (e.g., how much people said their attitudes expressed the "real you," and how related they said their attitude was to their moral beliefs).
Cognitive elaboration	One of Abelson's (1988) three measures of commitment (e.g., how knowledgeable people said they were and how long they said they had had their current views).
Ego preoccupation	One of Abelson's (1988) three measures of commitment (e.g., how important people said the topic was to them personally, how often they said they thought about it).
Importance	One of the items on the ego preoccupation scale, asking how important the topic was to them personally.
Knowledge	One of the items on the cognitive elaboration scale, asking how knowledgeable people considered themselves to be.
Accessibility	The speed with which people pressed a "yes" or "no" button when presented with the statement, "President Reagan: Good?" (see Fazio, 1989).
Reported behavior	Sum of five questions about people's past behaviors relevant to the issue (e.g., whether they had ever written a letter to a public official about Reagan).
Ego-involvement	People's latitude of rejection, measured as specified by social judgment theory (Sherif & Hovland, 1961).
Media exposure	The number of news stories about Reagan that people reported reading or hearing in the past year.
Attitude extremity	The distance of people's attitude from the midpoint of the scale

TABLE 17.2
Factor Loadings of Measures of Attitude Strength

Attitude Scale	Loading				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1 (32%)					
Cognitive elaboration	.80	.32	.10	.15	.04
Ego preoccupation	.85	.06	.10	.04	-.07
Emotional commitment	.82	.26	-.06	-.03	-.08
Reported behavior	.62	-.13	.04	.13	.30
Factor 2 (12%)					
Response time	.10	.82	-.09	.17	.04
Attitude extremity	.43	.68	-.02	.12	.03
Ego-involvement	-.08	.53	.46	-.43	-.01
Factor 3 (12%)					
Belief homogeneity	.11	-.09	.90	.11	-.04
Factor 4 (10%)					
Media exposure	.12	.22	.11	.87	.05
Factor 5 (9%)					
Affect.-cog. consistency	.02	.07	-.04	.03	.96

Note. The number after each factor represents the percentage of variance accounted for by that factor. All measures were coded such that the higher the value, the greater the consistency of the database or the greater the attitudinal strength. For example, the higher the score on the affective-cognitive consistency measure, the more consistent people were, and the higher the score on the response time measure, the faster people responded.

exposure had the highest loading on the fourth factor, whereas affective-cognitive consistency was the only variable to load highly on the fifth factor.

We argued earlier that attitude strength measures can be divided into two types: those in which there is a strong evaluation that is likely to be accessible over time (e.g., conviction, response time, importance), and those that reflect the consistency of people's database (belief homogeneity, affective-cognitive consistency). We suggested that this is not the only way in which measures of attitude strength differ, which is borne out by the fact that there was not a neat, two-factor solution, with all of the measures of one type loading highly on one factor, and all the measures of the other type loading highly on the other factor. As found in other, similar investigations, different measures of strength are often uncorrelated, resulting in multifactor solutions (e.g., Krosnick et al., 1993). Consistent with our hypothesized breakdown, however, the measures that we have put in one category (those assessing the accessibility of the evaluation) loaded on different factors than those we have put in the other category (those that assess the consistency of people's database).

The second question of interest is which of our indices of attitude strength predicted attitude stability. To assess stability, we computed the absolute value of the difference between people's standardized attitude responses at Times 1

TABLE 17.3
Correlations Between Measures

Measure	1	2	3	4	5	6	7	8	9	10	11
1. Belief homogeneity											
2. Affect.-cog. consistency	.05										
3. Response time	.01	.03									
4. Knowledge ^a	-.16*	.01	.19**								
5. Ego-involvement	.00	-.04	.08	.08							
6. Cognitive elaboration	-.14	.05	.26**	.88**	.07						
7. Ego preoccupation	-.12	-.02	.16*	.60**	.03	.63**					
8. Emotional commitment	-.04	.01	.22**	.59**	.05	.66**	.63**				
9. Importance ^b	-.09	-.04	.14	.48**	.06	.51**	.85**	.55**			
10. Reported behavior	-.01	.11	.11	.36**	-.03	.37**	.40**	.32**	.34**		
11. Media exposure	-.05	.09	.19*	.31**	-.02	.30**	.20*	.15	.06	.17*	
12. Attitude extremity	-.07	-.01	.43**	.33**	.04	.52**	.30**	.48**	.29**	.23**	.19*

Note. All measures were coded such that the higher the value, the greater the attitude strength. For example, the higher the score on the response time measure, the faster people responded, and the higher the score on the affective-cognitive consistency measure, the more consistent people were.

^aThe item about knowledge (Line 4) was part of the cognitive elaboration scale (Line 6).

^bThe item about attitude importance (Line 9) was part of the ego preoccupation scale (Line 7).

* $p < .05$. ** $p < .01$.

TABLE 17.4
Regression of Measures of Attitude Strength on Attitude Stability

Strength Measure	Beta	SE of Beta	t-value
Consistency of people's database			
Affective-cognitive consistency	.44	.12	3.84**
Belief homogeneity	.22	.12	1.87*
Strength and accessibility			
Emotional commitment	.52	.19	2.73**
Cognitive elaboration	.55	.36	1.50
Ego preoccupation	-.23	.26	<1
Response time	-.27	.15	1.81*
Importance	.11	.20	<1
Ego-involvement	-.17	.12	1.44
Reported behavior	-.08	.13	<1
Knowledge	-.44	.30	1.48
Attitude extremity	-.19	.16	1.17
Media exposure	.00	.12	<1

Note. For all variables, a positive beta means that the stronger the attitude, the more stable it was over time.

* $p < .10$. ** $p < .01$.

and 2. We then examined which of the strength variables predicted stability, adjusting for the effects of each of the other variables (using simultaneous regression). The results of this analysis are shown in Table 17.4. As predicted, our measures of the consistency of people's databases were predictive of attitude stability. The more consistent people's affect and cognitions were at Time 1, the more likely they were to hold a similar attitude at Time 2. Similarly, the more homogeneous people's beliefs toward Ronald Reagan were at Time 1, the more likely they were to hold a similar attitude at Time 2.

The results for the other indices of attitude strength were mixed. One of Abelson's measures of conviction—emotional commitment—was strongly related to stability, such that the more committed people were to their attitude at Time 1, the greater the consistency between their Time 1 and Time 2 attitudes. Curiously, however, the notion that strong attitudes are more stable was not borne out on several of the other measures. For example, neither attitude accessibility (as measured by response time) nor attitude knowledge was associated with greater attitude stability; in fact, the direction of these effects was in the opposite direction (though not significantly so).² These results are at odds with the studies we reviewed

²The regression reported in Table 17.4 includes variables (importance, knowledge) that were included as items in some of the other scales (cognitive elaboration, ego preoccupation), possibly resulting in problems of multicollinearity. To address this problem we computed separate regressions that included only the nonredundant measures (i.e., the individual items of knowledge and importance but not the composite measures that included these measures, or only the composite measures without the individual items). Very similar results were found in both of these analyses, and the significance levels of the betas remained virtually unchanged.

earlier that found that many measures of attitude strength correlate positively with attitude stability. These earlier studies, however, tended to include only single measures of strength. Our study is one of the very few that included multiple measures, allowing us to control for the contribution of other measures of attitude strength. It may be that some measures of strength are not associated with stability when the contribution of the other measures are controlled.

We thus have some support for the idea that when it comes to predicting attitude stability, different measures of attitude strength do not operate in the same way. Some measures, we suggest, are best conceived as reflections of the consistency of people's database. In our data set, these measures were associated in the predicted way with attitude stability. Other measures can be viewed as measures of the accessibility of people's evaluation (i.e., the likelihood that a prior evaluation is used to construct a new attitude). Interestingly, when variables such as media exposure, attitude extremity, and the other measures of attitude strength are controlled, many of these measures did not show the expected relationship with attitude stability. Before we make too much of this finding, we should see if it replicates, particularly across attitudes toward a variety of topics. In the meantime, we view these results as providing tentative support for our division of strength variables into two general types: Those that assess the consistency of people's database, which were predictive of attitude stability, and those related generally to the accessibility and strength of people's evaluation, which, surprisingly, were not.

ATTITUDE STRENGTH AS A MODERATOR OF THE EFFECTS OF ANALYZING REASONS

As mentioned earlier, we asked some of the participants in the Wilson et al. (1992) study, before giving their attitude at Time 2, to explain why they felt the way they did about Ronald Reagan. We found, as we have in several other studies, that people who analyzed reasons were significantly more likely to change their attitudes than those who did not (see Hodges & Wilson, 1993, for a more complete discussion of these results). Examining which of our measures of attitude strength moderated this effect may provide further support for our proposed division of strength variables into two types. If the different types of measures are conceptually distinct, then they might moderate the effects of analyzing reasons in different ways. To explore this possibility, we first need to discuss in more detail why analyzing reasons can change people's attitudes.

We suggest that people often do not have perfect access to the reasons behind their attitudes. When they think about why they feel the way they do, the reasons that come to mind are ones that are accessible in memory and sound plausible, but are not always completely accurate (Nisbett & Wilson, 1977). For example, when people think about why they feel the way they do about a particular political

candidate, what comes to mind might be that the candidate has different views than they do on labor issues and the necessity of raising taxes. It might be, however, that before people analyzed reasons these factors were relatively unimportant. In fact, people might have had a generally positive reaction to the candidate. After analyzing reasons the negative beliefs become more accessible, and influence people's attitude. That is, people often adopt, at least temporarily, the attitude implied by their reasons. We have found evidence, in several studies, for just this sequence of events (for reviews, see Wilson, 1990; Wilson, Dunn, Kraft, & Lisle, 1989; Wilson & Hodges, 1992).

Even if people do not know exactly why they feel the way they do, it might seem that they would focus only on reasons that were consistent with their initial feelings. Why, for example, would people think of negative attributes of a political candidate, if their initial evaluation was generally positive? This process is more understandable when we view the effects of analyzing reasons in terms of the model of attitudes-as-constructions. If we assume that people construct their attitudes from whatever information is currently accessible, and that analyzing reasons influences the information that is accessible (by focusing people's attention on reasons that sound plausible and are easy to verbalize), then we can see why people base their new attitude on the reasons that come to mind. The question then becomes, when are people likely to bring to mind reasons that are inconsistent with their initial attitude?

Moderating Effects of the Consistency of the Database

One such condition may be the nature of people's attitudinal database. As we have already seen, some attitudes are characterized by consistent beliefs and feelings about the attitude object. Such attitudes are likely to be relatively immune to the effects of analyzing reasons, because even if this kind of introspection focuses people's attention on a subset of their beliefs and feelings, or changes the way in which they weight these different factors, the same evaluation will be implied (i.e., because all of the thoughts and beliefs have the same valence, it does not matter which are used to construct an attitude). Other attitudes are characterized by inconsistent beliefs and/or feelings. This type of attitude, we suggest, is more likely to be changed when people analyze reasons. To the extent that analyzing reasons focuses people's attention on a different subset of these beliefs and feelings, or causes people to weight them differently, a new attitude will result.

This reasoning is consistent with research by Millar and Tesser (1986, 1989; see Tesser, Martin, & Mendolia, ch. 4, this volume). They suggest that thinking about reasons increases the salience of the cognitive component of an attitude. To the extent that a person's original attitude was determined at least in part by the affective component, then focusing on the cognitive component might cause a change in attitude. This would only be the case, however, to the extent that the affective and cognitive components of the attitude are different (i.e., when they

imply a different evaluation of the attitude object). If the components were evaluatively consistent, then it would not matter which one determined the attitude. Consistent with this argument, Millar and Tesser (1989) found that the people who were most susceptible to the effects of thinking about reasons were those whose attitudes toward a set of puzzles consisted of inconsistent affective and cognitive components.

Our view is similar, except that we prefer to broaden the view of the data people use to construct their attitudes, and the kinds of inconsistencies that might exist in these data. Millar and Tesser focus on inconsistencies between affect and cognitions. Analyzing reasons might also change people's attitudes, we suggest, if there are inconsistencies among the different cognitions (beliefs) people have about the attitude object, and if analyzing reasons focuses people's attention on a different subset of beliefs than they were using to construct their prior attitude. Thus in our view, people's attitudinal database often consists of a variety of beliefs and feelings, and analyzing reasons can change people's attitudes if there are inconsistencies between or within any of these components.

This prediction can be tested in our survey of attitudes toward Ronald Reagan. It should be recalled that we had two measures of the consistency of people's database: the homogeneity of their valenced beliefs about Ronald Reagan, and the consistency between their beliefs and their affect (see Table 17.1). Because these two measures were uncorrelated ($r = .05$) and loaded on different factors, we divided people into four groups, according to the consistency of their beliefs (belief homogeneity, high vs. low) and the consistency between their affect and cognitions (high vs. low). We then examined the effects of analyzing reasons in each group.³

Figure 17.1 displays the stability of people's attitudes in each group, defined here simply as the correlation between people's attitudes at Times 1 and 2. There was a significant three-way interaction on this measure between the reasons manipulation, belief homogeneity, and affective-cognitive consistency. This interaction is best understood by considering the effects of the reasons manipulation in each of the four cells shown in Fig. 17.1. First, as predicted, analyzing reasons had relatively little effect on people who had the most consistent database (see the far left-hand side of Fig. 17.1). Also as predicted, analyzing reasons had more of an effect on people with a moderately inconsistent database, that is, those with homogeneous beliefs but inconsistent affect and cognitions, or those with heterogeneous beliefs and consistent affect and cognitions (see the middle cells of Fig. 17.1). In these cells, people who analyzed reasons were significantly more likely to change their attitudes than control subjects, thereby lowering the consistency of their Time 2 attitude with their Time 1 attitude. These results are consistent with the hypothesis (both ours and Millar & Tesser's) that analyzing

³We also conducted regression analyses treating belief homogeneity and affective-cognitive consistency as continuous variables, and found very similar results to those discussed here.

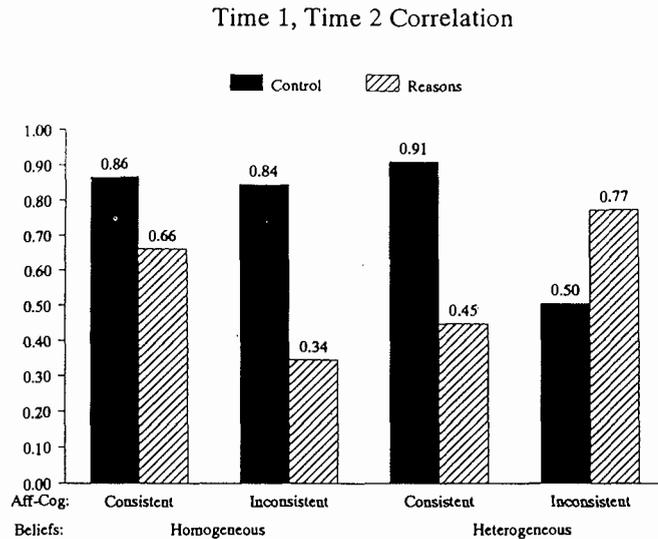


FIG. 17.1. Effects of reasons manipulation, belief homogeneity, and affective-cognitive consistency on absolute attitude change. The dependent measure is the correlation between Time 1 and Time 2 attitudes, such that the higher the number, the greater the attitude stability.

reasons is most likely to change people's attitudes when there is some inconsistency in people's beliefs and feelings about the attitude object. This inconsistency does not have to be between people's affect and cognitions, as Millar and Tesser suggested. Having inconsistent beliefs seems to be sufficient for analyzing reasons to change people's attitudes.

What about people who had the most inconsistent database, namely those in the far right-hand cell of Fig. 17.1? It appears, on the face of it, that the effects of analyzing reasons here were contrary to our predictions: There was no significant difference in attitude change between those who analyzed reasons and those who did not. In fact, people in the reasons condition actually showed slightly less change over time than those who did not. The story, however, is complicated by the fact that people in this group changed their attitudes a fair amount on their own over time. That is, as we have already seen, people with heterogeneous beliefs and inconsistent affect and cognitions changed their attitudes over time even without analyzing reasons. This is shown clearly in Fig. 17.1, where, among control subjects, those who had heterogeneous beliefs and inconsistent affect and cognitions had the least stable attitudes.

Consequently, additional change caused by the reasons manipulation becomes difficult to assess. Consider, for example, a hypothetical subject in the heterogeneous belief-inconsistent affect and cognition cell. Suppose this person's attitude was a 4 on a 6-point scale at Time 1. When contacted at Time 2, his or her

attitude has already changed, say, to a 5. If this person does not analyze reasons, then he or she reports a 5, resulting in the relatively low amount of consistency between Time 1 and Time 2 attitudes shown in the control condition at the far right of Fig. 17.1. If this person does analyze reasons at Time 2, suppose that additional attitude change occurred, changing the 5 back to a 4. If so, the measure of change from Time 2 to Time 1 would be $4 - 4 = 0$, falsely indicating that no change had occurred due to analyzing reasons.

One question this interpretation raises is why, if people had already changed their attitudes by the time we asked them to analyze reasons at Time 2, they would change their attitudes back toward their original Time 1 position, instead of adopting an even more extreme attitude (e.g., why our hypothetical subject, who had already changed from a 4 to a 5, did not change to a 6 after analyzing reasons). It may be that people who have highly inconsistent databases are those with ambivalent attitudes, who vacillate between two opposing positions. When we assessed their attitudes again at Time 2, many of these people may have changed from one position to the other. When these people analyzed reasons, however, they might have reexamined the merits of the alternative position, causing a shift back in the direction of their original attitude.

This interpretation is highly speculative, and will of course require further testing. One clear implication from this study, though, is that the effects of a manipulated variable (e.g., analyzing reasons) on attitude stability can be difficult to assess, if people's attitudes have changed on their own. Paradoxically, such a manipulation can push people back to their original attitude, making it look like no change occurred between Times 1 and 2.

Moderating Effects of Other Measures of Attitude Strength

We also examined whether the other measures of attitude strength, such as response time, conviction, and ego-involvement, moderated the effects of analyzing reasons. As reported by Hodges and Wilson (1993), people with inaccessible attitudes, as measured by response time, were more likely to change their attitudes after analyzing reasons than people with accessible attitudes. Interestingly, people with accessible and inaccessible attitudes were equally likely to bring to mind thoughts that were inconsistent with their initial attitudes, when asked to analyze reasons. People with inaccessible attitudes, however, were more likely to infer that their reasons reflected their current attitude, resulting in attitude change. This result is consistent with Fazio, Powell, and Williams' (1989) findings about the effects of situational salience on people's attitudes. Fazio et al. found that people with accessible attitudes were less influenced by the temporary salience of an array of consumer goods. Our findings suggest that people with accessible attitudes will also be less influenced by thoughts that are temporarily salient, namely the reasons they generated about why they felt the way they did.

None of the other measures of attitude strength significantly moderated the effects of analyzing reasons. We also explored several possible higher-order interactions between pairs of strength measures and analyzing reasons, and no significant effects were found. It was particularly surprising that people's reported level of knowledge did not moderate the effects of analyzing reasons, given that it has in some of our previous studies (e.g., Wilson, Kraft, & Dunn, 1989). We should note, however, that the means were in the predicted direction: Unknowledgeable people who analyzed reasons were more likely to change their attitudes than knowledgeable people who analyzed reasons.

IMPLICATIONS AND CONCLUSIONS

We have suggested that one way of classifying different measures of attitude strength is to divide them into two categories: (a) those that assess the consistency of people's database, including measures of affective-cognitive consistency, belief homogeneity, and ambivalence; and (b) those that measure the strength and accessibility of people's general evaluation of the attitude object, including importance, response time, conviction, and message elaboration. We have reported converging evidence for the importance and relevance of the first category. Our measures of the consistency of people's database proved to be independent of other measures of attitude strength (see correlations in Table 17.3), predicted attitude stability (see Table 17.4), and moderated the effects of analyzing reasons on attitude change (see Fig. 17.1).

These findings are consistent with a model that views attitudes as constructions, depending on what information is salient when people consider how they feel (Strack & Martin, 1987; Tesser, 1978; Tourangeau & Rasinski, 1988; Wilson & Hodges, 1992). When people have a consistent database, then their attitudes are likely to remain stable over time, even if they analyze reasons. When there is moderate inconsistency in the database, then analyzing reasons, which can change the information people use to construct an attitude, causes attitude change. When there is a great deal of inconsistency, then attitudes change on their own, even when people do not analyze reasons. The reason for this, we suggest, is that the accessibility of the different contents of people's database is likely to vary over time. If these contents are highly inconsistent with each other, then changes in accessibility will lead to people to construct different attitudes on different occasions.

We acknowledge that our results do not provide direct evidence that people were constructing their attitudes. Our goal was not to test the attitudes-as-constructions model against competing models, but rather to illustrate that it is a useful means of conceptualizing attitude change, and can account for the fact that people's attitudes are often not as stable as traditional views of attitudes suggest (see Tourangeau, Rasinski, & D'Andrade, 1991, for a more direct test

of a similar model). We find this model to be particularly helpful in understanding why people change their attitudes after explaining why they feel the way they do, what the limits of this change are, and why attitudes often change on their own, when people do not analyze reasons.

The results for the second category of strength measures were not as straightforward. Consistent with our hypothesis that these measures are separable from the consistency measures, they did not correlate highly with belief homogeneity or affective-cognitive consistency, and had different effects on attitude stability. The direction of some of the effects of these measures, however, were unexpected. We must await further studies to see how reliable these findings are.

In summary, it is clear, as noted by Raden (1985) and Abelson (1988), that attitude strength is not a unitary construct. Nor is it the case, we suggest, that different measures of strength have similar effects on at least one important outcome variable: attitude stability. Our investigation of attitude stability suggests one way of classifying strength variables into two categories: those that assess the consistency of people's database about the attitude object, and those that measure the strength and accessibility of people's evaluations. Undoubtedly other useful classifications will be discovered in future research. In the meantime, a clear implication is that it would be unwise for researchers to commit themselves prematurely to one or two measures, assuming that they are good proxies for all alternative measures of attitude strength.

ACKNOWLEDGMENTS

The writing of this chapter was supported by a National Science Foundation Graduate Fellowship to Sara Hodges and National Institute of Mental Health Grant MH41841 to Timothy Wilson.

REFERENCES

- Abelson, R. P. (1986). Beliefs are like possessions. *Journal for the Theory of Social Behaviour*, 16, 223-250.
- Abelson, R. P. (1988). Conviction. *American Psychologist*, 43, 267-275.
- Alport, G. W. (1935). Attitudes. In C. Murchison (Ed.), *A handbook of social psychology* (pp. 798-844). Worcester, MA: Clark University Press.
- Bargh, J. A., Chaiken, S., Goveender, R., & Pratto, F. (1992). The generality of the automatic activation effect. *Journal of Personality and Social Psychology*, 62, 893-912.
- Bassili, J. (1993). Response latency versus certainty as indexes of the strength of voting intentions in a CATT survey. *Public Opinion Quarterly*, 57, 54-61.
- Bennett, W. L. (1975). *The political mind and the political environment*. Lexington, MA: D.C. Heath.
- Bishop, G. D., Hamilton, D. L., & McConahay, J. B. (1980). Attitudes and nonattitudes in the belief systems of mass publics. *The Journal of Social Psychology*, 110, 53-64.

- Breckler, S. J., & Wiggins, E. C. (1989). Affect versus evaluation in the structure of attitudes. *Journal of Experimental Social Psychology, 25*, 253-271.
- Brown, S. R. (1970). Consistency and the persistence of ideology. *Public Opinion Quarterly, 34*, 60-68.
- Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology, 39*, 752-756.
- Converse, P. E. (1964). The nature of belief systems in mass publics. In D. E. Apter (Ed.), *Ideology and discontent* (pp. 206-261). London: Free Press of Glencoe.
- Cook, T. D., & Flay, B. R. (1978). The persistence of experimentally induced attitude change. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 11, pp. 1-57). New York: Academic.
- Fazio, R. H. (1986). How do attitudes guide behavior? In R. M. Sorrentino & E. T. Higgins (Eds.), *The handbook of motivation and cognition: Foundations of social behavior* (pp. 204-243). New York: Guilford.
- Fazio, R. H. (1989). On the power and functionality of attitudes: The role of attitude accessibility. In A. R. Pratkanis, S. J. Breckler, & A. G. Greenwald (Eds.), *Attitude structure and function* (pp. 153-179). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Fazio, R. H., Powell, M. C., & Williams, C. J. (1989). The role of attitude accessibility in the attitude-to-behavior process. *Journal of Consumer Research, 16*, 280-288.
- Fazio, R. H., & Williams, C. J. (1986). Attitude accessibility as a moderator of the attitude-behavior relation: An investigation of the 1984 presidential election. *Journal of Personality and Social Psychology, 51*, 505-514.
- Fazio, R. H., & Zanna, M. P. (1981). Direct experience and attitude-behavior consistency. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 14, pp. 161-202). New York: Academic.
- Feldman, J. M., & Lynch, J. G. Jr. (1988). Self-generated validity and other effects of measurement on belief, attitude, intention, and behavior. *Journal of Applied Psychology, 73*, 421-435.
- Hahn, H. (1970). The political impact of shifting attitudes. *Social Science Quarterly, 51*, 730-742.
- Hodges, S. D., & Wilson, T. D. (1993). Effects of analyzing reasons on attitude change: The moderating role of attitude accessibility. *Social Cognition, 11*, 353-366.
- Hovland, C. I. (1959). Reconciling conflicting results derived from experimental and survey studies of attitude change. *American Psychologist, 14*, 8-17.
- Kaplan, K. (1972). On the ambivalence-indifference problem in attitude theory and measurement: A suggested modification of the semantic differential technique. *Psychological Bulletin, 77*, 361-372.
- Krosnick, J. A. (1988). Attitude importance and attitude change. *Journal of Experimental Social Psychology, 24*, 240-255.
- Krosnick, J. A., & Abelson, R. P. (1991). The case for measuring attitude strength in surveys. In J. Tanur (Ed.), *Questions about survey questions* (pp. 177-203). New York: Russell Sage Foundation.
- Krosnick, J. A., Boninger, D. S., Chuang, Y. C., Berent, M. K., & Carnot, C. G. (1993). Attitude strength: One construct or many related constructs? *Journal of Personality and Social Psychology, 65*, 1132-1151.
- Marwell, G., Aiken, M., & Demerath, N. J. (1987). The persistence of political attitudes among 1960s civil rights activists. *Public Opinion Quarterly, 51*, 359-375.
- Millar, M. G., & Tesser, A. (1986). Effects of affective and cognitive focus on the attitude-behavior relationship. *Journal of Personality and Social Psychology, 51*, 270-276.
- Millar, M. G., & Tesser, A. (1989). The effects of affective-cognitive consistency and thought on the attitude-behavior relation. *Journal of Experimental Social Psychology, 25*, 189-202.
- Nisbett, R. E., & Wilson, T. D. (1977). Telling more than we can know: Verbal reports on mental processes. *Psychological Review, 84*, 231-259.
- Norman, R. (1975). Affective-cognitive consistency, attitudes, conformity, and behavior. *Journal of Personality and Social Psychology, 32*, 83-91.

- Pelham, B. W. (1991). On confidence and consequence: The certainty and importance of self-knowledge. *Journal of Personality and Social Psychology, 60*, 518-530.
- Petty, R. E., & Cacioppo, J. T. (1981). *Attitudes and persuasion: Classic and contemporary approaches*. Dubuque, IA: William C. Brown.
- Petty, R. E., & Cacioppo, J. T. (1986). *Communication and persuasion: Central and peripheral routes to attitude change*. New York: Springer-Verlag.
- Raden, D. (1985). Strength-related attitude dimensions. *Social Psychology Quarterly, 48*, 312-330.
- Rosenberg, M. J. (1960). A structural theory of attitude dynamics. *Public Opinion Quarterly, 24*, 319-340.
- Rosenberg, M. J. (1968). Hedonism, inauthenticity, and other goals toward expansion of a consistency theory. In R. P. Abelson, E. Aronson, W. J. McGuire, T. M. Newcomb, M. J. Rosenberg, & P. H. Tannenbaum (Eds.), *Theories of consistency: A sourcebook* (pp. 73-111). Chicago: Rand McNally.
- Schuman, H., & Presser, S. (1981). *Questions and answers in attitude surveys*. New York: Academic.
- Schwarz, N., & Bless, H. (1992). Constructing reality and its alternatives: An inclusion/exclusion model of assimilation and contrast effects in social judgment. In A. Tesser & L. Martin (Eds.), *The construction of social judgment* (pp. 217-245). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Sherif, C. W., Kelly, M., Rodgers, H. L. Jr., Sarup, G., & Tittler, B. I. (1973). Personal involvement, social judgment, and action. *Journal of Personality and Social Psychology, 27*, 311-328.
- Sherif, M., & Cantril, H. (1947). *The psychology of ego-involvements: Social attitudes and identifications*. New York: Wiley.
- Sherif, M., & Hovland, C. I. (1961). *Social judgment: Assimilation and contrast effects in communication and attitude change*. New Haven, CT: Yale University Press.
- Strack, F., & Martin, L. L. (1987). Thinking, judging, and communicating: A process account of context effects in attitude surveys. In H. J. Hippler, N. Schwarz, & S. Sudman (Eds.), *Social information processing and survey methodology* (pp. 123-148). New York: Springer-Verlag.
- Tesser, A. (1978). Self-generated attitude change. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 11, pp. 289-338). New York: Academic.
- Tourangeau, R., & Rasinski, K. A. (1988). Cognitive processes underlying context effects in attitude measurement. *Psychological Bulletin, 103*, 299-314.
- Tourangeau, R., & Rasinski, K. A., & D'Andrade, R. (1991). Attitude structure and belief accessibility. *Journal of Experimental Social Psychology, 27*, 48-75.
- Watts, W. A. (1967). Relative persistence of opinion change induced by active compared to passive participation. *Journal of Personality and Social Psychology, 5*, 4-15.
- Wilson, T. D. (1990). Self-persuasion via self-reflection. In J. Olson & M. P. Zanna (Eds.), *Self-inference processes: The Ontario Symposium* (Vol. 6, pp. 43-67). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Wilson, T. D., & Dunn, D. S. (1986). Effects of introspection on attitude-behavior consistency: Analyzing reasons versus focusing on feelings. *Journal of Experimental Social Psychology, 22*, 249-263.
- Wilson, T. D., Dunn, D. S., Bybee, J. A., Hyman, D. B., & Rotondo, J. A. (1984). Effects of analyzing reasons on attitude-behavior consistency. *Journal of Personality and Social Psychology, 47*, 5-16.
- Wilson, T. D., Dunn, D. S., Kraft, D., & Lisle, D. J. (1989). Introspection, attitude change, and attitude-behavior consistency: The disruptive effects of explaining why we feel the way we do. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 22, pp. 249-263). San Diego, CA: Academic.
- Wilson, T. D., & Hodges, S. D. (1992). Attitudes as temporary constructions. In A. Tesser & L. Martin (Eds.), *The construction of social judgment* (pp. 37-65). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Wilson, T. D., Hodges, S. D., & Pollack, S. E. (1992). *Effects of explaining attitudes on attitude stability: Moderating effects of the consistency of people's data base*. Unpublished manuscript, University of Virginia.

- Wilson, T. D., & Kraft, D. (1993). Why do I love thee? Effects of repeated introspections on attitudes toward the relationship. *Personality and Social Psychology Bulletin*, *19*, 409-418.
- Wilson, T. D., Kraft, D., & Dunn, D. S. (1989). The disruptive effects of explaining attitudes: The moderating effect of knowledge about the attitude object. *Journal of Experimental Social Psychology*, *25*, 379-400.
- Wilson, T. D., Lisle, D., Schooler, J., Hodges, S. D., Klaaren, K. J., & LaFleur, S. J. (1993). Introspecting about reasons can reduce post-choice satisfaction. *Personality and Social Psychology Bulletin*, *19*, 331-339.
- Wilson, T. D., & Schooler, J. (1991). Thinking too much: Introspection can reduce the quality of preferences and decisions. *Journal of Personality and Social Psychology*, *60*, 181-192.
- Wood, W. (1982). Retrieval of attitude-relevant information from memory: Effects on susceptibility of persuasion and on intrinsic motivation. *Journal of Personality and Social Psychology*, *21*, 73-85.
- Wood, W., Kallgren, C. A., & Preisler, R. M. (1985). Access to attitude-relevant information in memory as a determinant of persuasion: The role of message attributes. *Journal of Experimental Social Psychology*, *21*, 73-85.
- Zaller, J., & Feldman, S. (1992). A simple theory of the survey response: Answering questions versus revealing preferences. *American Journal of Political Science*, *36*, 579-616.
- Zanna, M. P., & Rempel, J. K. (1988). Attitudes: A new look at an old concept. In D. Bar-Tal & A. W. Kruglanski (Eds.), *The social psychology of knowledge* (pp. 315-334). Cambridge: Cambridge University Press.