

Mental Construal in Social Judgment

Norbert Schwarz

University of Michigan

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Contact:

Norbert Schwarz

Institute for Social Research

University of Michigan

Ann Arbor, MI 48106-1248

USA

nschwarz@umich.edu

A classic hallmark of the social psychological analysis of human behavior is the emphasis on the power of situations: Whereas lay-persons commonly explain others' behavior by reference to their dispositions, social psychologists documented that situational influences dwarf the influence of individuals' dispositions (for a review see Ross & Nisbett, 1991). A second hallmark of social psychological analysis emphasizes that people do not respond to the situation *per se*, but to the situation *as they see it*. Hence, understanding the mental processes underlying people's construction of the world in which they live is a core task of social psychology. Over the last three decades, this task has been tackled within the theoretical framework of social cognition research. This chapter reviews the key lessons learned.

Mental representations are based on information that comes to mind at a given point in time. What comes to mind can be a function of haphazard influences as well as of the person's goals and numerous other variables relevant to daily action. The first section addresses these variables and introduces principles of accessibility and situated cognition. However, knowing what comes to mind is not enough to predict a person's judgment. Instead, the same piece of accessible information can have opposite effects on judgment, depending on how it is used. The second section discusses issues of information use and the emergence of assimilation and contrast effects. In addition, the implications of accessible information may be qualified by metacognitive experiences that accompany the thought process and people may sometimes rely on their feelings instead of any descriptive information about the target of judgment. These issues are touched on in the third section and addressed in more detail by Bless and colleagues (this volume). Finally, the chapter concludes with a discussion of the conditions under which mental construals assessed at one point in time are likely to predict behavior at a later time.

What Comes to Mind

A core principle of social cognition theorizing holds that our mental construals of the world are based on the information that is most accessible at the time (for a review see Higgins, 1996). Social cognition experiments illustrate this accessibility principle by bringing information to mind that might otherwise not be considered. In daily life, however, the information that is most likely to come to mind is meaningfully related to the person's goals and current situation. Both aspects are addressed in turn.

The Accessibility Principle

The principle that mental construals are based on the information that is most accessible at the time applies to how we make sense of new information as well as to how we form judgments based on information retrieved from memory.

Making sense of new information. Suppose you learn that whenever my friend Donald starts something new, he is well aware that he will excel at it. Do you admire Donald for his confidence or do you despise him for being so conceited? As a classic experiment by Higgins, Rholes, and Jones (1976; see also Srull & Wyer, 1979) demonstrated, your reaction may have little to do with Donald. Specifically, Higgins and colleagues had participants learn a number of trait concepts as part of an allegedly unrelated experiment, before they exposed them to a story about Donald. Participants' impressions of Donald depended on the trait rendered accessible by the preceding task: they interpreted his behavior as confident (and likeable) when exposed to the concept "confident," but as conceited (and dislikeable) when exposed to the concept "conceited." This and related findings (see Higgins, 1996; Wyer & Srull, 1989) illustrate that we interpret new information in terms of the first applicable concept that comes to mind – and which concept that is, is often a function of haphazard influences. Not surprisingly, such trait priming effects are not observed when the behavior is unambiguous and hence does not allow the application of different concepts (e.g., Higgins et al., 1976).

More important, people only rely on the concept that comes to mind when they perceive it as their response to the new information. In most cases, the sheer fact that something comes to mind is sufficient to suggest that it is relevant to what we are thinking about – or why else would it come to mind now? Higgins (1999) refers to this assumption as the "aboutness" principle. When people are aware that "conceited" may only come to mind because it was part of an earlier task, they are unlikely to draw on this concept in forming an impression. Accordingly, trait priming effects are not observed when people are reminded of the earlier trait priming task (Strack et al., 1993) or when the task is sufficiently blatant to make people aware of its possible influence (Martin, 1986). In these cases, people may attempt to correct for the perceived influence. Because it is difficult to determine what one's judgment would have been without the perceived influence, correction attempts often result in overcorrection, that is, judgments that are biased in the opposite direction (e.g., Martin, 1986; Strack et al., 1993; for reviews see Strack & Hannover, 1996; Wilson & Brekke, 1994).

Memory based judgments. The accessibility principle also holds for memory based judgments. When people are asked to form a judgment, they rarely, if ever, retrieve all information that may be relevant to it. Instead, they truncate the search process as soon as enough information has come to mind to form a judgment with sufficient certainty (e.g., Bodenhausen & Wyer, 1987). Accordingly, the information that is most accessible in memory, and hence comes to mind most easily, exerts a disproportionate influence.

For example, Schwarz, Strack, and Mai (1991; see also Strack, Martin, & Schwarz, 1988) asked survey respondents to report their marital satisfaction and their general life-satisfaction in different question orders. When the general life-satisfaction question was asked first, it correlated with marital satisfaction $r = .32$. Reversing the question order, however, increased this correlation to $r = .67$. This reflects that the marital satisfaction question brought marriage related information to mind that respondents drew on in forming a representation of their lives in general. This increase in correlation was attenuated to $r = .43$ when questions about three different life-domains (job, leisure time, and marriage) preceded the general question, thus bringing a more diverse range of information to mind. Parallel influences were observed in the mean reports. Happily married respondents reported higher, and unhappily married respondents reported lower, general life-satisfaction when their attention was drawn to their marriage by the preceding question. In short, respondents did not review a myriad of different aspects of their lives to arrive at a judgment. Instead, they relied on the information that came to mind most easily, namely the information brought to mind by a preceding question (for a more extensive review of related findings see Schwarz & Bohner, 2001).

Many other characteristics of the judgment task can exert a similar influence. For example, Schkade and Kahneman (1997) asked students living in the Midwest of the United States if they would be happier living in California? One salient feature that distinguishes the Midwest from California is the climate and, not surprisingly, Midwesterners believed that life would be better in sunny California – much as Californians believed that life would be worse in the Midwest. Yet a comparison of students' actual life-satisfaction revealed no difference between California and the Midwest. Again, respondents focused on the most accessible feature, namely the salient difference in climate, at the expense of other information – missing that many other aspects of life would remain very similar. Thus, our tendency to truncate the search process early and to focus on the

most accessible information can give rise to profound *focusing illusions*, leading us to overestimate the relevance of whatever we focus on.

Temporary vs. chronic accessibility. In the above examples, information was rendered *temporarily* accessible by a preceding task or by characteristics of the question asked. In daily life, other haphazard influences, like exposure to the news (e.g., Iyengar, 1987), have been found to have similar effects. In addition, information can be *chronically* accessible and may come to mind independent of contextual influences (for a review see Higgins, 1996). For example, persons who are newly married or who go through a divorce may always consider marriage related information when evaluating their lives and persons who are preoccupied with confidence may apply this concept independent of a preceding priming task. In general, temporarily accessible information is the source of context effects in judgment, whereas chronically accessible information lends judgments some context-independent stability (see Schwarz & Bohner, 2001).

Situated Cognition

At first glance, one may wonder how people make it through the day when their thought processes are as profoundly shaped by haphazard influences as the above examples illustrate. One answer is that the context-sensitivity of human cognition is more adaptive in daily life than many social cognition experiments suggest. In daily life, the information brought to mind by a given context is indeed often relevant to the person's current situation, thus facilitating adequately contextualized responses. As William James (1890, p. 333) observed more than a century ago, "My thinking is first and last and always for the sake of my doing." From this perspective, human cognition stands in the service of action. To serve action, cognition needs to be responsive to our goals and to the immediate social and physical environment in which we pursue them. This pragmatic, motivated, and situated nature of cognition has recently received increased attention (for reviews see Barsalou, 2005; Smith & Semin, 2004).

Situated concepts. Cognitive psychologists have long assumed that we acquire knowledge about a category (say, "chairs") by abstracting it from the exemplars we encounter (living room chairs, office chairs, airplane chairs, etc.). The resulting representation of the category "chairs" is typically thought of as a list of the shared core features of the exemplars. Recent research indicates, however, that such abstract and context invariant knowledge is not what is most accessible in a given situation. Instead, which features are most likely to come to mind depends on whether we

think about chairs in the context of a living room or of an airplane (for a review see Yeh & Barsalou, in press). Social psychological research reiterates this theme. The same face of a young African American elicits a more positive response when shown in the context of a church scene than when shown in the context of a street corner scene (Wittenbrink, Judd, & Park, 2001). In both cases, the context influences which attributes of the general category (chairs, African Americans) come to mind and are used in forming a representation of the target. This context sensitivity of accessible knowledge facilitates meaningful interaction with the environment (and results in counterintuitive effects when an arbitrary context is introduced in experiments).

Levels of construal. Human actions can be represented at many different levels of abstraction – from “having dinner” to the component acts of “ordering,” “being served,” and so on, to the even lower level representation of using the utensils. The level of representation chosen is usually the one that is most functional in the present context. When all goes smoothly, higher level representations (“having dinner”) are fine, but when obstacles are encountered, say in the form of a dull knife, attention shifts to the lower level – and after dinner, the knife may only be remembered when it caused a problem. Numerous variables can influence at which level of abstraction an activity is represented, as some examples may illustrate. In all cases, the relevant variables can be conceptualized as bearing on the person’s goal directed actions.

As seen in the above example, attention shifts to lower levels, resulting in a more fine-grained representation, when people encounter a problem (see Wegner & Vallacher, 1986, for a review). However, a concrete problem is not always needed and more remote problem signals have been found to exert a similar influence. For example, we usually feel good when things are going smoothly and bad when things are going wrong. Hence, negative affect can serve as a generic problem signal and people in a sad mood process information attend more to the specifics at hand, form more fine-grained categories, and encode and recall information at a lower level of abstraction (for a review see Schwarz & Clore, in press). Similar shifts in processing strategy have been observed for affective environmental cues and presenting information on paper of an upbeat red or depressed blue hue is sufficient to affect people’s processing strategies (Soldat, Sinclair, & Mark, 1997). Throughout, such findings illustrate that mental processes are tuned to meet situational requirements.

If cognition stands in the service of action, we may also assume that temporally proximal actions (e.g., what we plan to do tomorrow) are represented at a more detailed level than temporally

distant actions (e.g., what we plan to do next year). An impressive program of research by Trope, Liberman and colleagues supports this prediction (for a review see Trope & Liberman, 2003). Not surprisingly, people's decisions are more likely to be based on their general goals than on a consideration of specific means and ends when the act is in the distant rather than near future – after all, the specifics of the distant future are still uncertain. However, people also categorize objects associated with an event into fewer and broader categories when the event is in the distant rather than near future (e.g., Liberman, Sagristano, & Trope, 2002), indicating that the influence of temporal distance on the level of construal extends beyond the consideration of means and ends. Similarly, perceivers use more generalized, abstract concepts when describing and predicting temporally distant behaviors (Nussbaum, Trope, & Liberman, 2003). Again, such changes in the level of construal are likely to support goal directed action.

Summary

As this selective review illustrates, the mental representations we form of the world are highly context dependent. We rarely consider all information that may be relevant and instead rely on the subset that is most accessible at the time. In daily life, this is often adaptive because what comes to mind is likely to reflect our goals and the situation in which we pursue them. Similarly, the representation's level of abstraction is often tuned to our current needs. However, this flexible, situated nature of human cognition also opens the door for many haphazard influences, as numerous social cognition experiments illustrate. Next, we turn to the judgment processes for which accessible information serves as input.

Information Use:

Constructing Targets and Standards

How accessible information influences a judgment depends on how it is *used*. Evaluative judgments that are based on features of the target (rather than on the perceiver's affective response, addressed in a later section) require two mental representations: a representation of the target and a representation of a standard against which the target is evaluated (Schwarz & Bless, 1992a, in press). Information that is used in forming a representation of the target results in *assimilation effects*; that is, the inclusion of positive (negative) information results in a more positive (negative) judgment. Accordingly, the happily participants in Schwarz et al.'s (1991a) marital satisfaction-life satisfaction experiment reported higher, and the unhappily married

participants lower, general life-satisfaction when their marriage was brought to mind through a preceding question. Conversely, information that is used in forming a representation results in a *contrast effect*; that is, more positive (negative) information results in a more positive (negative) standard, against which the target is evaluated less (more) favorably. Compared to one's wonderful marriage, for example, one's modest job may seem even less attractive. Hence, the *same* piece of accessible information can have opposite effects, depending on how it is used.

The variables that influence the use of information have been conceptualized in Schwarz and Bless' (1992a, in press) inclusion/exclusion model. The model assumes that perceivers tacitly ask themselves three questions, which serve as filters that channel information use.

Why Does It Come to Mind?

The first filter is: "Am I only thinking of this information because it was brought to mind due to some irrelevant influence?" If so, the accessible information is not used in forming a representation of the target, as already discussed. Accordingly, awareness of the priming episode, for example, undermines use of the primed information, resulting in contrast effects (e.g., Lombardi, Higgins, & Bargh, 1987; Martin, 1986; Strack et al., 1993).

Does it Bear on the Target?

When the information passes this first test, the second filter is: "Does this information represent a feature of the target?" This decision is subject to a myriad of variables known to influence categorization processes (for reviews see Schwarz & Bless, 1992a, in press).

Category structure. One of these variables is the categorical relationship between the contextual information and the target of judgment. As an example, consider the impact of political scandals on judgments of the trustworthiness of politicians. Not surprisingly, thinking about a politician who was involved in a scandal, say Richard Nixon, decreases trust in American politicians in general. This reflects that the exemplar is included in the representation formed of the superordinate category "American politicians." If the trustworthiness question pertains to a specific politician, however, say Bill Clinton, the primed exemplar cannot be included in the representation formed of the target -- after all, Clinton is not Nixon. In this case, Richard Nixon may serve as a standard of comparison, relative to which Bill Clinton seems very trustworthy. An experiment with German exemplars confirmed these predictions (Schwarz & Bless, 1992b): Thinking about a politician who was involved in a scandal decreased the trustworthiness of politicians in general, but increased the trustworthiness of every specific exemplar assessed. Similarly, Konrath and Schwarz

(2005) observed that the increased accessibility of Martin Luther King, Jr. during the MLK Holiday exerted a positive influence on judgments of African-Americans in general (a superordinate category), but a negative influence on judgments of other specific African-American leaders.

In general, the same information is likely to result in assimilation effects in the evaluation of superordinate target categories (which allow for the inclusion of all information pertaining to subordinate categories), but in contrast effects in the evaluation of lateral target categories (which are mutually exclusive). Accordingly, the previous discussion of levels of construal also bears on the emergence of assimilation and contrast effects: Construals at lower levels of abstraction result in more narrow categories, which are more likely to give rise to contrast effects.

Category Boundaries. How we categorize a given piece of information further depends on the salience of category boundaries. For example, Strack, Schwarz, and Gschneidinger (1985) asked participants to recall a positive or negative life-event that happened either recently or several years ago. When the event was recent, participants were more satisfied with their lives after recalling a positive rather than negative event, whereas the opposite pattern was obtained for distant events. This reflects that recent events could be included in the representation of the target category “my life now,” whereas the distant events could not, and hence served as a standard of comparison. In follow-up experiments (reviewed in Schwarz & Strack, 1999), freshmen were asked during their first month at college to recall a positive or negative life-event that happened “during the last two years.” Replicating the earlier findings, these recent events resulted in assimilation effects on current life-satisfaction. Other freshmen were given the same task, except for a small addition to the instructions: they were asked to recall a positive or negative event that happened “during the last two years, that is, before you came to the university.” This addition emphasized a category boundary that invited them to chunk the stream of life into their high school time and college time. As expected, they now reported lower current life-satisfaction after recalling a positive rather than negative “high school” event. In combination, these findings illustrate that the same information can make life look good or bad, depending on how it is used. Hence, today’s source of misery can always become tomorrow’s source of happiness – provided that you chunk the stream of life in the right way (Schwarz & Strack, 2006).

Feature Overlap. Another general determinant of categorization is feature overlap: A

given stimulus is more likely to be assigned to a given category, the more it shares category features. For example, Herr, Sherman, and Fazio (1983; see also Herr, 1986) observed assimilation effects when a target stimulus was rated in the context of moderate stimuli, but contrast effects when it was rated in the context of extreme stimuli. They concluded that "to the extent that a comparison of features of the activated category and the target stimulus results in matching or overlap, a judgment of category membership should occur" (Herr, 1986, p. 1107), eliciting an assimilation effect. If the overlap is insufficient, on the other hand, thus constituting an exclusion relationship, "the priming exemplars serve as standards of comparison" (Herr, 1986, p.1107), resulting in a contrast effect. Findings of this type converge on the conclusion that "distinct" information (low feature overlap) elicits contrast effects, whereas "non-distinct" information (high feature overlap) elicits assimilation effects, as Stapel and colleagues observed in numerous experiments (e.g., Stapel & Koomen, 2000; Stapel & Winkielman, 1998).

Summary. In sum, *any* variable that influences the categorization of information can determine whether a given piece of information is included in the representation of the target, giving rise to assimilation effects, or in the representation of the standard, giving rise to contrast effects (for extended reviews see Biernat, 2005; Schwarz & Bless, in press). As reviewed earlier in this chapter, research into situated cognition identified numerous variables that influence at which level of detail we mentally represent the world, that is, whether we form broad or narrow categories. These variables, from goals to moods and temporal distance, are also likely to influence how a given piece of information is used, and hence whether it results in assimilation or contrast effects in evaluative judgment. This possibility provides a promising avenue for further research.

Conversational Norms

The third and final filter pertains to the norms of conversational conduct that govern information use in conversations: "Is it conversationally appropriate to use this information?" Conversational norms prohibit redundancy and invite speakers to provide information that is new to the recipient, rather than information that the recipient already has (for a review see Schwarz, 1994). Hence, highly accessible information is not used when it violates this conversational norm, again resulting in contrast effects (e.g., Schwarz, et al., 1991a; Strack, et al., 1988).

Information that passes all three tests is included in the representation formed of the target and results in assimilation effects. Information that fails any one of these tests is excluded

from the representation formed of the target, but may be used in forming a representation of the standard, resulting in contrast effects.

The Size of Assimilation and Contrast Effects

In addition to specifying the mental construal processes underlying the emergence of assimilation and contrast effects, the inclusion/exclusion model (Schwarz & Bless, 1992a, in press) also predicts the size of these effects. As already seen in the discussion of Schwarz et al.'s (1991a) marital satisfaction study, the impact of marital satisfaction on general life-satisfaction as a broader range of information about respondents' lives was brought to mind. This observation illustrates the *set size principle* that determines the size of context effects: The impact of a given piece of information decreases with the amount and extremity of other information that is used in forming the respective representation. Hence, a given piece of information temporarily (e.g., Bless, Igou, Schwarz, & Wänke, 2000) or chronically (e.g. Wänke, Bless, & Schwarz, 1998) accessible information results in a smaller assimilation or contrast effects, the more other information is used to construct a mental representation of the target or the standard, respectively. Bless, Schwarz, and Wänke (2003) provide a more detailed discussion of these processes.

Summary

As this selective review illustrates, how we see the world does not only depend on which information comes to mind at a given point in time – it also depends on how we use this information. The same piece of information elicits an assimilation effect when it is used to form a mental representation of the target, but a contrast effect when it is used to form a mental representation of the standard. Hence, merely thinking of a positive life-event, for example, does not guarantee a positive outlook – in fact, last year's exciting vacation may only make our daily routines look more dreadful (Schwarz & Strack, 2006). The general variables underlying information use are reasonably well understood (for a review see Schwarz & Bless, in press), although much more will be learned as we increasingly understand how people's goals, and the obstacles they encounter, shape the mental representations they form in daily life.

Experiential Information

So far, this chapter focused on declarative information about the object of judgment and addressed which information is likely to come to mind and how it is used. However, thinking is

accompanied by a variety of subjective experiences and these experiences can serve as a source of information in their own right. This section discusses what people learn from subjective experiences, like the ease or difficulty with which they can bring some information to mind or their emotional responses to what they think about. While a detailed review of the interplay of feeling and thinking is beyond the scope of this chapter, some examples can highlight the role experiential information in mental construal (see Schwarz & Clore, in press, for a comprehensive discussion).

Metacognitive Experiences

As every reader knows from personal experience, recalling information or generating reasons for a course of action can be experienced as easy or difficult. These *accessibility experiences* are informative in their own right and can qualify the conclusions drawn from what comes to mind. Hence, we need to consider accessible thought content (what comes to mind) as well as subjective accessibility experiences (how easily it comes to mind) in predicting a person's judgments.

Based on what comes to mind, we would expect, for example, that people judge themselves as more assertive after recalling many rather than few examples of their own assertive behavior. Yet recalling many examples is often experienced as difficult and this difficulty suggests that there may not be that many examples after all. Hence, Schwarz, Bless, Strack, Klumpp, Rittenauer-Schatka, and Simons (1991b) observed that participants judged themselves as less assertive after recalling many rather than few examples of assertive behavior, in contrast to what accessible thought content would suggest. In general, judgments are only consistent with the implications of accessible content when recall or thought generation is experienced as easy, but opposite to the implications of accessible content when recall or thought generation is experienced as difficult. Finally, accessibility experiences exert no influence when their informational value for the judgment at hand is discredited; in this case, people discount the experience and turn to accessible content as the most diagnostic source of information. For example, when participants in the Schwarz et al. (1991b) study were told that background music played to them may interfere with their recall task, they discounted the experienced difficulty and reported higher assertiveness after recalling many rather than few assertive behaviors, thus reversing the otherwise observed pattern. Bless, Keller, and Igou (this volume) and Schwarz (2004) review this literature and discuss its implications.

Similarly, new information, like a text we read or a picture we see, can be easy or difficult to process. This experience of high or low *processing fluency* can again serve as input into a variety of judgments (for reviews see Reber, Schwarz, & Winkielman, 2004; Schwarz, 2004). Of particular interest to social psychologists is that high processing fluency feeds into judgments of familiarity, truth, and liking.

Familiar information is usually easier to process than unfamiliar information. Hence, people often infer from ease of processing that the presented information is familiar – even when fluent processing results merely from presentation variables like long exposure times, good figure-ground contrast, an easy to read print font or preceding semantic primes. One consequence of this feeling of familiarity is erroneous recognition of new information as previously seen (for a review see Kelley & Rhodes, 2002). Another consequence is that fluently processed information is more likely to be accepted as true – the feeling of familiarity suggests that one has heard this before, so there’s probably something to it. Simply printing a statement like “Orsono is a city in Chile” in a color that makes it easy rather than difficult to read against a colored background is enough to increase its acceptance as true (Reber & Schwarz, 1999). Similarly, substantively equivalent statements are more likely to be judged true when they are presented in a rhyming rather than nonrhyming form (McGlone & Tofiqbakhsh, 2000); that “birds of a feather flock together” is certainly true – but, “birds of a feather flock conjointly” just doesn’t have that ring of truth to it.

In addition, fluent processing is experienced as affectively positive, as captured by psychophysiological measures (Winkielman & Cacioppo, 2001). Like other sources of positive affect, discussed below, the positive affective response elicited by high processing fluency gives rise to more positive judgments of liking, beauty, and preference (see Reber et al., 2004, for a review).

Affective Response

Instead of basing their judgments on the mental representation formed of the target, people can simplify the judgment process by consulting their apparent affective response to the target, essentially asking themselves, “How do I feel about this?” (for reviews see Pham, 2004; Schwarz & Clore, in press). When their feelings are indeed elicited by the target, they provide diagnostic information, making this a useful heuristic. Unfortunately, however, we have only one window on our experience and may misread feelings that are due to another source as our

apparent response to the target. This gives rise to more positive judgments when people are in happy rather than sad mood, unless the informational value of the mood for the judgment at hand is called into question (Schwarz & Clore, 1983). For the same reason, the positive affect associated with fluent processing results in more positive evaluations of fluently processed targets (Reber et al., 2004).

Finally, specific emotions provide information that goes beyond the global positive/negative valence information provided by moods. Which information emotions provide can be derived from their underlying appraisal patterns (Ellsworth & Scherer, 2003; Ortony, Clore, & Collins, 1988). Sadness, for example, signals a loss or lack of reward that is not attributed to the causal action of another agent; when it is attributed to the causal action of another agent, it gives rise to anger. Accordingly, sadness and anger do not only inform us about a loss, but also about its likely cause, giving rise to different attributions in judgment studies (e.g., Keltner, Ellsworth, & Edwards, 1993).

Implications

As these examples illustrate, experiential information can play an important role in mental construal. First, metacognitive experiences can qualify the implications of accessible declarative information. Finding it difficult to recall many assertive behaviors, we may conclude that there aren't many; finding it easy to process a statement we may conclude that it seems familiar and is probably true. Second, specific emotions can inform us about features of the current situation. Feeling angry rather than sad in light of a loss implies that the loss was caused by the actions of another person, or else we wouldn't be so angry. Such affect-based attributions may become part of the mental representation of what happened, exerting an influence after the affect dissipated. Third, as seen in the section on situated cognition, feelings that signal a benign or problematic situation can influence our processing style and determine at which level of detail a situation is represented. Finally, by asking ourselves, "How do I feel about this?" we may arrive at evaluative judgments without any detailed review of the features of the target, relying on our feelings rather than our mental representation of the target as the crucial input, thus dissociating the attributes of the target from its evaluation.

From Judgment to Behavior

As the reviewed research indicates, our mental representations of the world are situated and highly context dependent – and so are the judgments based on these representations. The same mental construal logic applies to people’s behavioral decisions. People respond to objects, situations, and people as they see them – and how they see them is subject to contextual influences. It is therefore not surprising that psychologists’ attempts to predict people’s behavior in a specific situation from their general attitudes, reported in a different situation, have met with limited success (for a review see Eagly & Chaiken, 1993). From a mental construal perspective, judgments formed at time 1 are only likely to predict behavior at time 2 when the judgment and the behavioral decision are based on similar mental representations. This *matching principle* (Lord & Lepper, 1999; Schwarz & Bohner, 2001) provides a parsimonious conceptualization of core findings of the extensive literature on attitude-behavior consistency.

First, illustrating the general matching principle, judgment and behavior are likely to be consistent when the temporary representation formed of the target at the time of judgment matches the temporary representation formed at the time of behavior. For example, Ramsey, Lord, Wallace, and Pugh (1994) observed that participants' attitude judgments towards former substance abusers were a better predictor of their behavior towards an exemplar when the description of the exemplar matched rather than mismatched participants' representation of the group, as assessed two weeks earlier. Because many exemplars provide a poor match with our general representation of the category to which they belong, it is difficult to predict behaviors towards exemplars from judgments about the category, resulting in the usually observed low judgment-behavior relationship.

Second, suppose that the attitude judgment is based on respondents' mood at the time of judgment (Schwarz & Clore, in press). In this case, we may be hard put to detect any judgment-behavior consistency unless respondents happen to be in the same mood in the behavioral situation and the behavior is inconsequential, thus rendering one's apparent affective response sufficient for a decision. Moreover, any other difference in processing motivation at the time of judgment and behavior is similarly likely to decrease the judgment-behavior relationship (e.g., Blessum, Lord, & Sia, 1998). When asked in a consumer survey how much we like a Volvo, for example, we are likely to draw on fewer features of the Volvo than when pondering whether to actually buy one, thus increasing the likelihood of mismatches between the two representations. In a similar vein, Wilson and his colleagues (for a review see Wilson & Hodges, 1992) observed that writing an essay

that justifies one's attitude judgment can undermine the judgment-behavior relationship -- in writing the essay, participants draw on many aspects they may not consider in the behavioral situation, thus reducing the match between the relevant representations.

Third, as Millar and Tesser (1992) noted, we engage in some behaviors for their instrumental value in reaching a goal and in other behaviors for the pleasures they provide. If so, judgments should be a better predictor of instrumental behaviors when the judgment is based on a consideration of the behavior's instrumental implications rather than hedonic implications. But judgments based on our hedonic assessments of the behavior should be an excellent predictor for consummatory behaviors, i.e., behaviors we engage in for enjoyment. An elegant series of studies confirmed this variant of the general matching hypothesis (see Millar & Tesser, 1992).

Fourth, numerous studies have shown that judgment-behavior consistency is higher when the individual has direct behavioral experience with the target (for a review see Fazio & Zanna, 1981). For example, Regan and Fazio (1977) observed that participants' evaluations of a set of puzzles were better predictors of how much time they spent on each puzzle in a subsequent free play period when their ratings were based on prior behavioral experience than when they were not. Presumably, the behavioral experience resulted in a temporary representation that provided a better match with participants' experiences during the free play period.

Fifth, judgment-behavior consistency is likely to be higher when individuals take the context in which the behavior is to be performed into account when they form a judgment. In most cases, however, evaluative judgments are assessed without mentally instantiating the relevant context, resulting in low judgment-behavior consistency. Hence, evaluations assessed in a "cold" state, e.g., attitudes towards condom use assessed in a research setting, are poor predictors of actual behavior in a "hot" state, like a romantic encounter (for a review see Loewenstein & Schkade, 1999).

Finally, the matching assumption also explains why some measurement procedures are more likely to identify judgment-behavior consistency than others. As Fishbein and Ajzen (1975) demonstrated, we are more likely to observe judgment-behavior consistency when we use multiple behavioral criteria rather than a single criterion. In terms of the preceding discussion, an aggregation across multiple behaviors or multiple situations increases the likelihood that some matches are included in the assessment. Moreover, judgment-behavior consistency increases the better the judgment task matches the behavioral criterion. For example, respondents' evaluation of "Donating money to the Democratic party" is a better predictor of this particular behavior than their general

evaluation of the Democratic party per se. Such matches between the judgment task and the target behavior again increase the likelihood that both responses are based on similar representations.

In combination, these examples illustrate that evaluative judgments at time 1 are only likely to predict behavior at time 2 when the judgment and the behavioral decision are based on similar mental representations. If so, however, we may hesitate to conclude that some pre-existing stable attitude plays a causal role in the behavioral decision. Instead, the observed relationship may be rather spurious, reflecting that the evaluative judgment and the behavioral decision are based on similar representations (see Schwarz & Bohner, 2001, for a more detailed discussion).

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