Title

The role of summary and specific behavioral memories in trait judgments about the self

Authors

Klein, SB

Loftus, J

Sherman, JW

Publication Date

2023-12-10

Peer reviewed

The Role of Summary and Specific Behavioral Memories in Trait Judgments About the Self

Stanley B. Klein
Judith Loftus
Jeffrey W. Sherman
University of California, Santa Barbara

In a recent series of studies, Klein and Loftus and their colleagues have shown that trait judgments about the self are uninfluenced by the prior retrieval of trait-relevant behavioral memories. In this article, two types of behavioral memories are distinguished—specific and summary. A study is reported that, in contrast to the authors' earlier studies examining the effect of specific behavioral memories, shows that retrieval of summary behavioral memories does affect subsequent judgments of a trait's self-descriptiveness. The implications of the distinction between specific and summary behavioral memories for models of trait self-knowledge are discussed.

Does our knowledge of the traits that describe us depend on our ability to recall our past behavior? Is it possible for a person who cannot recall any personal experiences—and therefore cannot know how he or she has behaved—to know what he or she is like?

These questions, whose origins can be traced to John Locke's (1690/1731) pioneering attempt to define personal identity in terms of memory, have stimulated debate among philosophers for more than 300 years (e.g., Butler, 1736/1975; Grice, 1941; Hume, 1739/1817; Lewis, 1982; Reid, 1785/1941; Shoemaker, 1963; Williams, 1973). For example, Grice (1941), one of the more forceful advocates for the memorial basis of self, argues that self-knowledge is constructed from the recollection of personal experiences and therefore "is to be defined in terms of memory" (p. 340; see also Quinton, 1962). Not all philosophers share this strong view that self-knowledge can be defined wholly in terms of memory (e.g., Butler, 1736/1975; Shoemaker, 1963), but few deny memory an important role.

Among psychologists, those interested in the mental representation of trait knowledge about the self have widely adopted the view that our knowledge of the traits that describe us is based, in large part, on memory for our past behavior (e.g., Bellezza, 1984; Bower & Gilligan, 1979; Groninger & Groninger, 1984; Hampson, 1982; Keenan & Baillet, 1980; Kihlstrom et al., 1988; Locksley & Lenauer, 1981; Matlin, 1989; Neimeyer & Rareshide, 1991; Warren, Chattin, Thompson, & Tomsky, 1983). Specifically, they propose that trait self-knowledge consists of the representation in memory of one's trait-relevant behaviors. According to this view, when asked to decide whether a trait is self-descriptive, a person retrieves memories of trait-relevant behaviors and computes their similarity to the trait being judged (for a detailed discussion, see Locksley & Lenauer, 1981). For example, to decide whether I am honest, I would recall my behavior in situations pertaining to honesty and determine whether there is a match between my behavior and the trait "honest." Retrieving behaviors such as my refusal to look at exposed test answers should lead me to decide that "honest" is self-descriptive.

Some of the original formulations of the behavioral basis of trait self-knowledge (e.g., Hampson, 1982; Locksley & Lenauer, 1981) were based on an extension of Bem's (1967, 1972) theory of self-perception. Bem proposed that our knowledge of our own thoughts, feelings, and other internal states is inferred from observing

Authors' Note: Preparation of this article was supported by an Academic Senate Research Grant to the first author from the University of California, Santa Barbara. We wish to thank Joan Byer for her assistance in running the experimental sessions and Greg Trafton for programming the experimental materials. We are also grateful to the University of California Social Cognition Group for their thoughtful suggestions about this research and to John Bassili for his helpful comments on an earlier version of this article. Correspondence concerning this article should be addressed to either Stanley B. Klein or Judith Loftus, Department of Psychology, University of California, Santa Barbara, CA 93106.

PSPB, Vol. 19 No. 3, June 1993 305-311

our behavior and the circumstances in which it occurs. For example, a person will infer that he is hungry if he is enthusiastically eating a large meal. The idea that we infer our current internal states from currently observed behaviors suggested to some self theorists that we may also infer our knowledge of whether a trait is self-descriptive from memories of past behaviors.

Consequently, a primary question for a behavior-based theory of trait self-knowledge is whether judging a trait for self-descriptiveness requires retrieving trait-relevant behaviors from memory. We have addressed this question in several previous studies (Klein & Loftus, 1990, in press; Klein, Loftus, & Burton, 1989; Klein, Loftus, & Plog, 1992; Klein, Loftus, Trafton, & Fuhrman, 1992), and our findings have been quite consistent. We have found no evidence that self-descriptiveness judgments require retrieval of behavioral memories. In fact, we have found no evidence that self-descriptiveness judgments are even influenced by retrieval of behavioral memories. Our findings have led us to conclude that a behavior-based theory of trait self-knowledge is incorrect. We have proposed that, rather than being represented at the level of behaviors, trait self-knowledge is represented primarily in abstract form, and that these abstractions, not behavioral memories, are the basis of trait self-descriptiveness judgments (for similar views, see Lord, in press; Lord, Desforges, Chacon, Pere, & Clubb, 1992; Nelson, in press; Tulving, in press).

There are, however, some researchers who have found evidence that conflicts with our proposal. Salancik and Conway (1975), for example, showed that when subjects' recall of autobiographical information was manipulated to make salient either proreligious or antireligious behaviors, subjects who recalled proreligious behaviors subsequently judged themselves to be more religious than did subjects who recalled antireligious behaviors. Similarly, Fazio, Effrein, and Falender (1981) found that when subjects retrieved behavioral memories reflecting either introversion or extraversion, those recalling introversion-related memories subsequently judged themselves to be more introverted than did those who recalled extraversion-related memories.

Why do these researchers find an effect when we find none? We think that it is due to a difference in the types of behavioral memories that subjects retrieved. In our research, we have focused on the role of memories for specific behaviors: Our subjects recalled specific instances in which their behavior exemplified the trait in question. By contrast, subjects in the experiments described above recalled memories that summarized their behavior across multiple events. Salancik and Conway (1975) asked subjects to endorse statements concerning the *frequency* with which they engaged in various behaviors relating to religion (e.g., "I frequently attend a church or synagogue," "I occasionally donate money to religious organizations"). And Fazio et al. (1981) had subjects answer questions about behaviors and situations that *typify* their experience of introversion or extraversion (e.g., "What kinds of events make you feel like being alone?" or "What would you do if you wanted to liven things up at a party?"). (Other studies showing effects of summary memories on self-judgment include Chaiken & Baldwin, 1981; Salancik, 1974.)

The significance of this distinction for questions about trait judgments may be illuminated by the work of Buss and Craik (1983, 1984). These investigators propose that trait knowledge is derived from categorizing multiple trait-relevant episodes across situations and occasions. The statement "I am honest," therefore, means that over time and across situations I have exhibited a high frequency of honest behaviors. Because knowledge of a person's traits depends on information about the *frequency* of behaviors implying those traits, a single behavior cannot serve as an index from which a trait inference can be drawn (see also Epstein, 1979, 1983; Ross & Nisbett, 1991).

From this perspective, we can see a difference in the utility of summary behavioral memories versus memories for specific individual behaviors in the process of making a trait judgment. The idea that trait inferences cannot reliably be drawn from single behaviors is consistent with our findings that trait judgments about the self are uninfluenced by memory for specific behaviors. By contrast, summary behavioral memories, by providing information about behavioral frequency, may be a more reliable indicator of one's traits and therefore be useful in judgments of trait self-descriptiveness.

Perhaps, then, our conclusion that trait judgments about the self are *wholly* uninfluenced by memory for behavior is overstated. It may be that when summary behaviors are retrieved, some influence is possible. Therefore, the present study tests whether trait self-descriptiveness judgments can be influenced by the retrieval of summary behavioral memories. In this study we use the same paradigm that we used in our earlier studies of trait self-knowledge: the task facilitation paradigm (e.g., Klein et al., 1989, Klein, Loftus, Trafton, & Fuhrman, 1992).

THE TASK FACILITATION PARADIGM

The task facilitation paradigm was designed to address the question whether judging a trait for self-descriptiveness requires retrieval of trait-relevant behavioral memories. In implementing the paradigm, we rephrased this question to ask: "Do judging a trait for self-descriptiveness

and retrieving a trait-relevant behavioral memory require the same type of information (i.e., specific behavioral instances)?" The paradigm is based on the following logic. Suppose you are asked to perform two tasks in succession. If, in the process of performing the first task, information relevant to the second task is made available, then the time you need to perform the second task should be less than if that information had not been made available (e.g., Collins & Quillian, 1970; Malt, 1989). Therefore, to assess the extent to which two tasks require (and thereby make available) similar information, one could examine the degree to which performing the first task reduces the time needed to perform the second. This facilitation should be greatest when the information overlap between the first and second tasks is large and should be least when the information overlap is small.

In its original implementation, the task facilitation paradigm required subjects to perform three tasks: judging a stimulus trait for self-descriptiveness (*descriptive* task), recalling a specific instance in which they manifested the stimulus trait (*autobiographical* task), and generating a definition of the stimulus trait (*semantic* task). A trial consisted of performing two of these tasks in succession, an initial task and a target task, on the same trait word. By using all possible factorial combinations of the three tasks, we were able to examine target task response latencies for each of them as a function of initial task performed.

We predicted that if trait judgments require access to trait-exemplifying behaviors, then two things should occur. First, the reduction in time required to perform an autobiographical target task should be greater when a descriptive task is performed first than when a semantic task is performed first, because the behavioral information required for an autobiographical task will have been made available during the descriptive task but not during the semantic task. Second, the reduction in time required to perform a descriptive task should be greater when an autobiographical task is performed first than when a semantic task is performed first, because the behavioral information required for the descriptive task will have been made available during the autobiographical task but not during the semantic task.

By contrast, we predicted that if trait judgments do not require information about trait-relevant behaviors, then (a) performing a descriptive task first should not lead to a greater reduction in the time required to perform an autobiographical task than would result from first performing a semantic task, and (b) performing an autobiographical task first should not lead to a greater reduction in the time required to perform a descriptive task than would result from first performing a semantic task.

All our earlier studies have found that a descriptive task is no more facilitating than a semantic task to subsequent performance of an autobiographical task and that an autobiographical task is no more facilitating than a semantic task to performance of a subsequent descriptive task (e.g., Klein & Loftus, in press; Klein et al., 1989). We have therefore concluded that self-descriptiveness judgments neither require nor are influenced by retrieval of specific behavioral memories.[1]

In the present experiment, we modified the task facilitation paradigm to test whether trait self-descriptiveness judgments are influenced by the retrieval of summary behavioral information. Specifically, we changed the autobiographical memory manipulation to elicit summary, rather than specific, behavioral memories. Instead of asking subjects to recall a specific incident in which they exemplified a trait, we asked them to recall how they have "typically" behaved when exemplifying a particular trait (e.g., "What have you typically done when you were being sociable?"). We have argued that the greater reliability of summary behavioral information as a basis for trait inference may have been responsible for the influence of autobiographical information on trait judgments in the work of Salancik, Fazio, and others. If we are correct, then, in contrast to the results of our studies using single behaviors, we should find that retrieving a behavioral summary will produce a reliable reduction in the time required for subjects to judge a trait for self-descriptiveness.

METHOD

Subjects. Subjects were 24 undergraduates who participated for course credit. They were tested individually in sessions lasting approximately 45 min.

Materials and design. The stimuli were 90 trait adjectives selected from Kirby and Gardner's (1972) norms. The adjectives used were close to the norm means on the dimensions of familiarity, imagery, and behavioral specificity.

Subjects received 90 trials, 1 trial per trait adjective. A trial consisted of performing two tasks in succession, an initial task and a target task, for each adjective. For the *descriptive* task, the subject decided whether the trait adjective was self-descriptive; for the *autobiographical* task, the subject recalled what he or she had "typically" done when exemplifying a particular trait;[2] and for the *definition* task, the subject thought of a definition for the trait adjective. The initial tasks (descriptive, autobiographical, and definition) were factorially combined with two target tasks (descriptive and autobiographical) to create six initial task/target task pairings. The assignment of stimulus words to initial task/target task pairs (15 words per pair) and the order in which task pairs were presented were randomized across subjects.

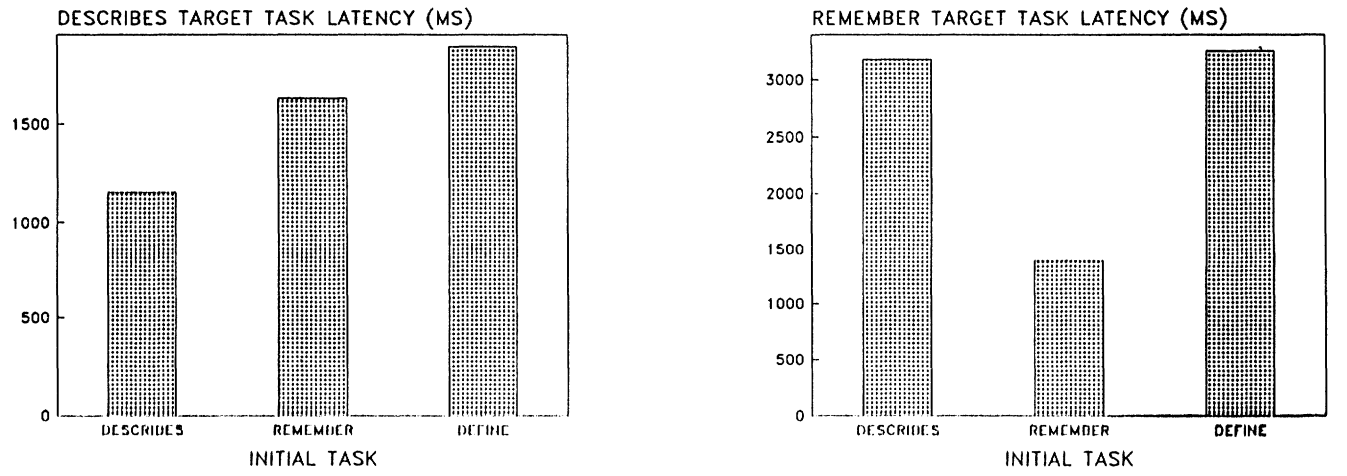

Figure 1 Mean response latencies on Describes and Remember target tasks as a function of initial task performed.

Procedure. Subjects were told that we were investigating their ability to perform different tasks on stimulus words. We told them that it was important that they perform the tasks accurately and that they should indicate immediately when they had completed each task. We then explained the experimental tasks and gave instructions for performing them.

A microcomputer presented stimulus words and recorded response latencies for initial and target tasks. Each trial began with the appearance on a computer screen of a cue word for the initial task. The cue was either *Describes* (for the descriptive task), *Remember* (for the autobiographical task), or *Define* (for the definition task). After 1 s, a trait adjective appeared below the cue and a timer was started. The cue and the stimulus word remained on the screen until the subject indicated by pressing a key that he or she had completed the initial task. The timer then stopped, response latency was recorded, and the initial task cue was removed, leaving the stimulus trait on the screen. After a 1-s pause, the cue word for the target task (*Describes* or *Remember*) appeared on the screen and the timer was reactivated. This cue and the trait adjective remained on the screen until the subject signaled by pressing a key that he or she had completed the target task. The timer then stopped, the target task response latency was recorded, and a row of asterisks appeared across the screen to indicate the end of the trial. There was a 2-s delay before the beginning of the next trial.

In our instructions to subjects, we told them that the ordering of the tasks would be random. We also told them that on trials where the target task was the same as the initial task they need not generate a new response for the target task; rather, they could simply call the original response to mind a second time. Subjects received six practice trials, one for each possible initial task/target task pair.

RESULTS AND DISCUSSION

In the following analyses, the mean and median response latencies yielded the same patterns of results. To facilitate comparisons with latency data reported in previous studies of trait judgments about self and others (e.g., Ganellen & Carver, 1985; Klein & Kihlstrom, 1986; Kuiper, 1981), we present the results of the analyses on the means.

The mean response latencies for the Describes target task are shown in the left panel of Figure 1. A one-way repeated-measures analysis of variance (ANOVA) on these latencies was significant, $F(2, 46) = 17.18$, $p < .001$. Consistent with the premise underlying the task facilitation paradigm—that facilitation is an increasing function of the overlap in information required for two successive tasks—Newman-Keuls analysis ($p < .05$) revealed that target task latency was fastest when the initial and target tasks were the same. However, unlike the findings of our previous task facilitation studies, latencies for the Describes target task were significantly faster when the initial task was Remember ($M = 1{,}627$ ms) than when it was Define ($M = 1{,}887$ ms).[3,4]

A one-way repeated-measures ANOVA on the Remember target task mean response latencies (see the right panel of Figure 1) also yielded a significant effect for initial task, $F(2, 46) = 39.34$, $p < .0001$. Once again, Newman-Keuls analysis ($p < .05$) revealed that latencies to perform the target task were shortest when the initial and target tasks were the same. However, for this task, latency to retrieve summary behavioral memories did

not reliably differ as a function of whether the initial task was Describes or Define.[5]

Thus, it appears that our earlier proposal that self-descriptiveness judgments are made independent of behavioral memories was too strong. The present data show that if behavioral summaries are made available, subjects can use them in making trait judgments about themselves: Summary memories made available by performance of a Remember task led to a reliable reduction in the time required to perform a subsequent Describes task. However, these data are consistent with our earlier work in indicating that trait self-descriptiveness judgments do not require retrieval of behavioral memories. If self-descriptiveness judgments required summary behavioral memories, then performing a Describes task should facilitate retrieval of a behavioral summary in a subsequent Remember task. Contrary to this prediction, subjects were no faster at retrieving behavioral summaries following performance of a Describes task than following a Define task.

CONCLUSIONS

Throughout our earlier work using the task facilitation paradigm (e.g., Klein & Loftus, 1990, in press; Klein et al., 1989), we found that retrieving behavioral memories does not facilitate subsequent judgments of trait self-descriptiveness. By contrast, the present study showed that behavioral memories can produce a reliable reduction in the time required to judge a trait for self-descriptiveness.

We propose that the reason for this difference is that subjects in our earlier studies retrieved memories of specific individual behaviors whereas subjects in the present study, like those in the Salancik and Fazio studies, retrieved memories that summarized multiple past behaviors. The distinction between specific and summary behavioral memories parallels a recently proposed distinction in the cognitive literature between specific and generic autobiographical memories (e.g., Barsalou, 1988; Brewer, 1986; Conway, 1987, 1990a; Eder, Gerlach, & Perlmutter, 1987; Hudson, 1986; Nelson, 1988, in press; Watkins & Kerkar, 1985). A specific autobiographical memory is a representation of a single personal event that includes details about the time and place of that event. For example, my recollection of falling down and twisting my ankle while hiking on my last trip to Yosemite National Park is a specific autobiographical memory. A generic autobiographical memory, by contrast, is derived from multiple exposures to similar events but does not include details of the individual experiences from which it is derived. Thus, a generic autobiographical memory is a representation of a general *kind* of event. For example, my recollection of "hiking in Yosemite" that does not include details of any individual hiking experience would be an example of a generic autobiographical memory.

Drawing on the work of Buss and Craik (1983, 1984), we have argued that because a specific behavioral memory references only a single occurrence of a behavior, it should not be considered a reliable basis for a trait attribution. Therefore, the recollection of a specific behavioral memory should be unlikely to influence a subsequent self-descriptiveness judgment (e.g., Klein & Loftus, in press; Klein et al., 1989). However, a summary behavioral memory, because it provides information about the frequency of behaviors, should be a more reliable indicator of a trait. The recollection of a behavioral summary should therefore be more likely to influence a subsequent trait self-descriptiveness judgment. We have proposed that the information provided by summary behavioral memories explains the effects of autobiographical memory on trait self-judgments reported in the work of Salancik and Fazio. And, consistent with this view, the present study found that recalling summary behavioral memories did facilitate subsequent self-descriptiveness judgments.

Hence, our earlier conclusion that trait judgments about the self are uninfluenced by memory for behaviors must be revised to accommodate the influence of summary behavioral memories. However, our argument that trait self-descriptiveness judgments do not *depend* on recall of behavioral memories still stands. Although self-descriptiveness judgments may be influenced by summary behavioral memories, our findings suggest that they do not require them. If they did, then judging a trait for self-descriptiveness should enhance the availability of summary behavioral information in memory, thereby facilitating its retrieval in a subsequent Remember task. Subjects in the present study were no faster to retrieve summary behaviors after judging a trait for self-descriptiveness than after generating the definition of the trait. Thus, although it is apparent that if the right type of behavioral information is available, subjects can use it in making trait judgments about themselves, it also remains clear that subjects do not *need* either summary or specific behavioral information to make those judgments (see also Nelson, in press).

NOTES

1. The interpretation of the results from any one paradigm can always be subject to the criticism that they reflect more the idiosyncrasies of the methodology than the behavior of the variables of interest. We have therefore tested the behavioral view of trait self-judgments using several methodologies and dependent measures (e.g., Klein, Loftus, & Plog, 1992). The findings from these studies converge with those of our task facilitation paradigm studies on the conclusion that trait-relevant behavioral episodes are not the basis for trait self- descriptiveness judgments.

2. Pretesting showed that subjects had no difficulty performing this task. Nine subjects, who did not participate in the main study, were shown the same list of trait adjectives (e.g., *sociable*) and asked to remember how they had typically behaved when exemplifying each. Subjects were instructed to report their memories aloud, and their vocalizations were tape-recorded. A coder, unaware of the purpose of the pretest, classified pretest subjects' memories using the categories "summary behaviors," "specific behaviors," and "other." Ninety-two percent of subjects' memories were classified as summary behaviors (e.g., "I've often gone partying with friends on the weekend"), 3% were classified as specific behaviors (e.g., "My first day back at school I took my roommate to lunch"), and 5% were classified as other (e.g., "I plan to spend more time with my girlfriend"). These proportions are similar to those reported by Eder, Gerlach, and Perlmutter (1987).

3. We did not request that subjects report their responses to any of the tasks during the experimental trials; rather, we instructed them to generate responses to the task questions in their heads (our reasons for adopting this procedure are detailed in Klein & Loftus, in press). Unfortunately, allowing subjects to keep their responses private left us unable to monitor whether they had performed the tasks as instructed. However, the initial task latencies provide evidence that subjects did perform the tasks. Specifically, the latencies we obtained are comparable to those obtained by researchers who have collected subjects' responses at the time of task performance. For example, the mean latency to perform a Describes initial task (M = 1,933 ms) is comparable to that reported by studies in which subjects reported their self-descriptiveness judgments at the time they made them (e.g., Keenan & Baillet, 1980; Kendzierski, 1980; Klein & Kihlstrom, 1986; Mueller, Thompson, & Dugan, 1986). Similarly, the mean latency to perform a Remember initial task (M = 3,421 ms) is comparable to that we obtained during pretesting, when we instructed subjects to report each summary behavioral memory immediately after they had pressed a key to indicate they had brought the memory to mind (M = 3,610 ms).

4. It could be argued, however, that, in the process of remembering what they have typically done when exemplifying a trait, subjects first decide whether or not the trait is self-descriptive, and this self-descriptiveness judgment, rather than the behavioral summaries per se, might be the factor that facilitates a subsequent self-descriptiveness judgment. Our data, however, argue against this possibility. If part of performing a Remember task entails deciding whether a trait is self-descriptive, one would expect a Remember task to be performed faster when preceded by a Describes task than when preceded by a Define task, because the trait judgment involved in performance of the Remember task would be provided by a Describes task but not by a Define task. Contrary to this prediction, the time taken to perform a Remember task was not differentially facilitated by the previous performance of a Describes or a Define task (see the right panel of Figure 1).

5. The retrieval of summary memories in our study required about half the time subjects typically take to retrieve specific behavioral memories (e.g., Klein & Loftus, in press). Although the reasons for these latency differences are not well understood (some possibilities are discussed in Cornoldi, DeBeni, & PraBaldi, 1989), it should be noted that similar findings have been obtained in other studies (e.g., Conway, 1990b, Experiment 1, results for emotion words; Cornoldi et al., 1989).

REFERENCES

Barsalou, L. W. (1988). The content and organization of autobiographical memories. In U. Neisser & E. Winograd (Eds.), *Remembering reconsidered: Ecological and traditional approaches to the study of memory* (pp. 193-243). New York: Cambridge University Press.

Bellezza, F. S. (1984). The self as a mnemonic device: The role of internal cues. *Journal of Personality and Social Psychology, 47*, 506-516.

Bem, D. J. (1967). Self-perception: An alternative interpretation of cognitive dissonance phenomena. *Psychological Review, 74*, 183-200.

Bem, D. J. (1972). Self-perception theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 6, pp. 1-62). New York: Academic Press.

Bower, G. H., & Gilligan, S. G. (1979). Remembering information related to one's self. *Journal of Research in Personality, 13*, 420-432.

Brewer, W. F. (1986). What is autobiographical memory? In D. C. Rubin (Ed.), *Autobiographical memory* (pp. 25-49). New York: Cambridge University Press.

Buss, D. M., & Craik, K. H. (1983). The act frequency approach to personality. *Psychological Review, 90*, 105-126.

Buss, D. M., & Craik, K. H. (1984). Acts, dispositions, and personality. In B. A. Maher & W. B. Maher (Eds.), *Progress in experimental personality research* (Vol. 13, pp. 241-301). New York: Academic Press.

Butler, J. (1975). Of personal identity. In J. Perry (Ed.), *Personal identity* (pp. 99-105). Berkeley: University of California Press. (Original work published 1736)

Chaiken, S., & Baldwin, M. W. (1981). Affective-cognitive consistency and the effect of salient behavioral information on the self-perception of attitudes. *Journal of Personality and Social Psychology, 41*, 1-12.

Collins, A. M., & Quillian, M. R. (1970). Facilitating retrieval from semantic memory: The effect of repeating part of an inference. *Acta Psychologica, 33*, 304-314.

Conway, M. A. (1987). Verifying autobiographical facts. *Cognition, 26*, 39-58.

Conway, M. A. (1990a). Associations between autobiographical memories and concepts. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 16*, 799-812.

Conway, M. A. (1990b). Conceptual representation of emotions: The role of autobiographical memories. In K. J. Gilhooly, M. T. G. Keane, R. H. Logie, & G. Erdos (Eds.), *Lines of thinking* (Vol. 1, pp. 133-143). Chichester, England: Wiley.

Cornoldi, C., DeBeni, R., & PraBaldi, A. (1989). Generation and retrieval of general, specific and autobiographical images representing concrete nouns. *Acta Psychologica, 72*, 25-39.

Eder, R. A., Gerlach, S. G., & Perlmutter, M. (1987). In search of children's selves: Development of the specific and general components of the self-concept. *Child Development, 58*, 1044-1050.

Epstein, S. (1979). The stability of behavior: I. On predicting most of the people much of the time. *Journal of Personality and Social Psychology, 37*, 1097-1126.

Epstein, S. (1983). Aggregation and beyond: Some basic issues in the prediction of behavior. *Journal of Personality, 51*, 360-391.

Fazio, R. H., Effrein, E. A., & Falender, V. J. (1981). Self-perceptions following social interactions. *Journal of Personality and Social Psychology, 41*, 232-242.

Ganellen, R. J., & Carver, C. S. (1985). Why does self-reference promote incidental encoding? *Journal of Experimental Social Psychology, 21*, 284-300.

Grice, H. P. (1941). Personal identity. *Mind, 50*, 330-350.

Groninger, L. D., & Groninger, L. K. (1984). Autobiographical memories: Their relation to images, definitions, and word recognition. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 10*, 745-755.

Hampson, S. E. (1982). *The construction of personality*. Boston: Routledge & Kegan Paul.

Hudson, J. A. (1986). Memories are made of this: General event knowledge and the development of autobiographical memory. In K. Nelson (Ed.), *Event knowledge: Structure and function in development* (pp. 97-118). Hillsdale, NJ: Lawrence Erlbaum.

Hume, D. A. (1817). *A treatise of human nature*. London: Thomas and Joseph Allman. (Original work published 1739)

Keenan, J. M., & Baillet, S. D. (1980). Memory for personally and socially significant events. In R. S. Nickerson (Ed.), *Attention and performance* (Vol. 8, pp. 651-669). Hillsdale, NJ: Lawrence Erlbaum.

Kendzierski, D. (1980). Self-schemata and scripts: The recall of self-referent and scriptal information. *Personality and Social Psychology Bulletin, 6*, 23-29.

Kihlstrom, J. F., Cantor, N., Albright, J. S., Chew, B. R., Klein, S. B., & Niedenthal, P. M. (1988). Information processing and the study of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 145-177). New York: Academic Press.

Kirby, D. M., & Gardner, R. C. (1972). Ethnic stereotypes: Norms on 208 words typically used in their assessment. *Canadian Journal of Psychology, 26*, 140-154.

Klein, S. B., & Kihlstrom, J. F. (1986). Elaboration, organization, and the self-reference effect in memory. *Journal of Experimental Psychology: General, 115*, 26-38.

Klein, S. B., & Loftus, J. (1990). The role of abstract and exemplar-based knowledge in self-judgments: Implications for a cognitive model of the self. In T. K. Srull & R. S. Wyer (Eds.), *Advances in social cognition* (Vol. 3, pp. 131-139). Hillsdale, NJ: Lawrence Erlbaum.

Klein, S. B., & Loftus, J. (in press). The mental representation of trait and autobiographical knowledge about the self. In T. K. Srull & R. S. Wyer (Eds.), *Advances in social cognition* (Vol. 5). Hillsdale, NJ: Lawrence Erlbaum.

Klein, S. B., Loftus, J., & Burton, H. A. (1989). Two self-reference effects: The importance of distinguishing between self-descriptiveness judgments and autobiographical retrieval in self-referent encoding. *Journal of Personality and Social Psychology, 56,* 853-865.

Klein, S. B., Loftus, J., & Plog, A. E. (1992). Trait judgments about the self: Evidence from the encoding specificity paradigm. *Personality and Social Psychology Bulletin, 18,* 730-735.

Klein, S. B., Loftus, J., Trafton, J. G., & Fuhrman, R. W. (1992). The use of exemplars and abstractions in trait judgments: A model of trait knowledge about the self and others. *Journal of Personality and Social Psychology, 63,* 739-753.

Kuiper, N. A. (1981). Convergent evidence for the self as prototype: The "inverted-U RT" effect for self and other judgments. *Personality and Social Psychology Bulletin, 35,* 63-78.

Lewis, H. D. (1982). *The elusive self.* Philadelphia: Westminster Press.

Locke, J. (1731). *An essay concerning human understanding.* London: Edmund Parker. (Original work published 1690)

Locksley, A., & Lenauer, M. (1981). Considerations for a theory of self-inference processes. In N. Cantor & J. F. Kihlstrom (Eds.), *Personality, cognition, and social interaction* (pp. 263-277). Hillsdale, NJ: Lawrence Erlbaum.

Lord, C. G. (in press). The "social self" component of trait knowledge about the self. In T. K. Srull & R. S. Wyer (Eds.), *Advances in social cognition (Vol. 5). Hillsdale, NJ: Lawrence Erlbaum.*

Lord, C. G., Desforges, D. M., Chacon, S., Pere, G., & Clubb, R. (1992). Recollections on reputation in the process of self-evaluation. *Social Cognition, 10,* 2-29.

Malt, B. C. (1989). An on-line investigation of prototype and exemplar strategies in classification. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 15,* 539-555.

Matlin, M. W. (1989). *Cognition* (2nd ed.). New York: Holt, Rinehart and Winston.

Mueller, J. H., Thompson, W. B., & Dugan, K. (1986). Trait distinctiveness and accessibility in the self-schema. *Personality and Social Psychology Bulletin, 12,* 81-89.

Neimeyer, G. J., & Rareshide, M. B. (1991). Personal memories and personal identity: The impact of ego identity development on autobiographical memory recall. *Journal of Personality and Social Psychology, 60,* 562-569.

Nelson, K. (1988). The ontogeny of memory for real events. In U. Neisser & E. Winograd (Eds.), *Remembering reconsidered: Ecological and traditional approaches to the study of memory* (pp. 244-276). New York: Cambridge University Press.

Nelson, K. (in press). Developing self-knowledge from autobiographical memory. In T. K. Srull & R. S. Wyer (Eds.), *Advances in social cognition* (Vol. 5). Hillsdale, NJ: Lawrence Erlbaum.

Quinton, A. (1962). The soul. *Journal of Philosophy, 59,* 393-409.

Reid, T. (1941). *Essays on the intellectual powers of man.* London: Macmillan. (Original work published 1785)

Ross, L., & Nisbett, R. E. (1991). *The person and the situation: Perspectives of social psychology.* New York: McGraw-Hill.

Salancik, G. R. (1974). Inference of one's attitude from behavior recalled under linguistically manipulated cognitive sets. *Journal of Experimental Social Psychology, 10,* 415-427.

Salancik, G. R., & Conway, M. A. (1975). Attitude inferences from salient and relevant cognitive content about behavior. *Journal of Personality and Social Psychology, 32,* 829-840.

Shoemaker, S. (1963). *Self-knowledge and self-identity.* Ithaca, NY: Cornell University Press.

Tulving, E. (in press). Self-knowledge of an amnesic individual is represented abstractly. In T. K. Srull & R. S. Wyer (Eds.), *Advances in social cognition* (Vol. 5). Hillsdale, NJ: Lawrence Erlbaum.

Warren, M. W., Chattin, D., Thompson, D. D., & Tomsky, M. T. (1983). The effects of autobiographical elaboration on noun recall. *Memory & Cognition, 11,* 445-455.

Watkins, M. J., & Kerkar, S. P. (1985). Recall of a twice-presented item without recall of either presentation: Generic memory for events. *Journal of Memory and Language, 24,* 666-678.

Williams, B. (1973). *Problems of the self.* New York: Cambridge University Press.

Received February 7, 1992
Revision received May 22, 1992
Accepted May 22, 1992