

Testing a Cue-list to Aid Attitude Recall in Surveys: A Field Experiment

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Survey questionnaires commonly include retrospective questions on attitudes as a substitute for concurrently obtained assessments. Empirical studies have shown that these retrospectively obtained attitudes often deviate seriously from the attitudes for which they are substitutes: the attitude that respondents held in the past. In spite of this, hardly any research has been done to examine whether aided recall methods might be able to minimize such a discrepancy. The present study provides a first empirical test of a cue-list which was used as an aided recall method for retrospective attitude questions about unemployment. The cue-list consisted of a standardized set of cues – advantages and disadvantages of being unemployed – that was added to a retrospective attitude question on unemployment. It was tested in a randomized field experiment during the second wave (1991) of a longitudinal social survey in the Netherlands. The cue-list was expected to enhance the reconstruction of the past attitudes of those respondents who had actually been unemployed at the time of the first interview. Respondents who had not been unemployed were treated as a control group. The agreement between the recalled attitude and the attitude reported in the first wave of the survey, four years earlier, was used to evaluate the effects of the cue-list. Contrary to expectation, the cue-list led to a lower instead of a higher level of agreement. However, in line with Tulving's encoding specificity principle, the "unemployment" cue-list did have this unexpected effect only for the respondents who had been unemployed at the time of the first interview and not for the control group. In addition, the cue-list led to a more positive attitude towards unemployment, in retrospect, for the former group of respondents. Exploratory analyses suggest that the cues might have triggered positive features of unemployment that could have been easily overlooked otherwise. Based on the outcomes, the risks of applying cues are discussed.

Key words: Aided recall; attitudes; cues; data collection; survey.

1. Introduction

Social surveys often use standardized questionnaires, in which respondents are asked to report on their past. Since research has shown that the quality of retrospective autobiographical reports leaves much to be desired (e.g., Schwarz and Sudman 1994), survey methodologists have developed aided recall instruments to enhance recall (e.g., Eisenhower et al. 1991; Van der Vaart 2004; Van der Vaart and Glasner 2007). So far, these aided recall measures have been applied to behavioral and factual questions only and

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not yet to questions about more subjective issues such as past attitudes. The present study provides a first exploration of such an aided recall method for retrospective attitude questions. Survey questionnaires commonly include retrospective assessments of attitudes as a substitute for concurrently obtained assessments where gathering concurrent data is impossible or too expensive. However, it is well-known that these retrospectively obtained attitudes often deviate seriously from the attitudes that respondents reported concurrently in the past (e.g., Gutek 1978; Pearson et al. 1992; Smith 1984). Aided recall methods might be able to improve those retrospective measurements.

Retrospective and concurrent assessments of attitudes are often combined in order to measure attitude change in social surveys or, more specifically, to make pre-post comparisons in outcomes evaluation research (Kreulen et al. 2002; Scott and Alwin 1998). Retrospective assessments of prior attitudes should however, be clearly distinguished, from retrospective assessments of attitude change itself. The focus of the present study is on the recall of past attitudes as such. In social surveys attitude recall may focus, for example, on political issues (Lowenthal and Loewenstein 2001), political party affiliation (Reiter 1980), social and political issues (Smith 1984), work and social conditions (Finney 1981), child support (Schaeffer 1994) and the like. Distortions in attitude recall are important by themselves, e.g., in affecting change measures, but studies may also focus on the consequences of these distortions with regard to other, substantive variables (e.g., Joslyn 2003).

In evaluation research, retrospective attitude questions are commonly used to provide baseline data for comparison of pre-event and post-event status. Kwong and Hamilton (2004), for example, used retrospective reports of Russian military officers to assess change in attitudes measured before and after Russian military downsizing. Similarly, in evaluating health-related programs, researchers compare retrospective and concurrent measures of respondents' attitudes about their health, (e.g., patients' satisfaction with their health; see Kreulen et al. 2002).

Various types of retrospective attitude questions are used in large-scale social surveys. Some attitude questions refer to specific times in the past, such as the retrospective attitude question on homosexuality in the Dutch *Family Survey Dutch Population 2003* (<http://www.ru.nl/sociologie>). Respondents were asked: "Could you estimate your opinion [on homosexuality] when you were 18 [and 30 and 50] years old?". A five-point response scale was used, ranging from "approve completely" to "disapprove completely." Other retrospective attitude questions refer to a specific event or situation that might have occurred at any time in the past. In the U.S. *National Longitudinal Survey of Youth 2005* (<http://www.chrr.ohio-state.edu>) respondents were asked about their attitude towards a job that they had mentioned before: "Which of the following best describes how you feel/felt about your job as/with [employer name]?", using a five-point response scale that ranged from "like(d) it very much" to "dislike(d) it very much." Other attitude questions ask the respondent to report an "overall" state during a prolonged reference period. For example, in the *L.A. Family and Neighborhood Study 2001* (<http://www.lasurvey.rand.org>) respondents were asked: "Think about your health while you were growing up, from birth to age 14. Would you say that your health during that time was excellent, very good, good, fair, or poor?" Similarly, in the *European Survey of Health, Ageing and Retirement 2005* (<http://www.share-project.org>), respondents' agreement with the following statement was

measured on a five-point scale: “In my current major activity (job, looking after home, voluntary work) I have always been satisfied with the rewards I received for my efforts.”

Finally, in the present study we investigated the effect of aided recall on a retrospective attitude question about unemployment that was asked in the Dutch panel study *The Process of Social Integration of Young Adults* (see Section 4.2).

Most survey questions on prior subjective states are attitude questions. Eagly and Chaiken (1993, p. 1) defined an attitude as: “a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor.” Although retrospective questions might also refer to more global subjective tendencies such as moods, traits, and habits, the present study is restricted to questions about attitudes. As Eagly and Chaiken (1993, pp. 1–8) stress, attitudes are fundamentally different from other subjective tendencies, whether cognitive, affective or behavioral.

Regardless of the exact definition of an attitude, it is generally assumed that an attitude reflects a hidden mechanism or latent process in people’s minds (e.g., Fazio 1989). As Chaiken et al. (1995) state, people’s evaluation of the attitude object and the associated information may be represented in their memories and may be activated upon exposure to the attitude object or related cues. Therefore, reporting of attitudes, just like reporting of events and facts, should be facilitated by aided recall techniques; attitudes are remembered just like these other entities. On the other hand, recalling attitudinal information is a complex matter and can be easily affected and distorted by external influences and circumstances (e.g., Pearson et al. 1992; Tourangeau 1999).²

The aim of the present study is to test the effects of a cue-list as an aided recall tool for an attitude question in a survey. By presenting cues concerning aspects of possible past unemployment situations, we aimed to stimulate a balanced reconstruction of the past attitude. An experimental laboratory study would be needed to show whether or how the cues trigger memories – but as a field test of an aided recall instrument in a national longitudinal survey, the current study offers the opportunity to examine whether an attitude can be reconstructed in a real-life survey after a period of four years. Given the fact that such retrospective attitude questions are currently used in survey research, it would be helpful to know whether or not a cue-list helps respondents to reconstruct past attitudes.

2. Aided Recall

Although existing aided recall measures have been applied to factual and behavioral information only, some properties might also be applicable to attitudinal information. In general, older information is more vague and ambiguous than current information, rendering older information more vulnerable to biased or selective recall (Bernard et al. 1984). In the absence of more concrete memories, the respondent is more likely to supplement autobiographical memory through inferences based on general knowledge or

² People may hold *nonattitudes*, i.e., no opinion, about many issues they have not considered. In such cases, aided recall would be of little value because there is no stored attitude to recall. The present study is concerned with attitudes toward unemployment, a topic of sufficient social and personal importance that we believe most people will have formulated attitudes about.

semantic memory (Seamon 1980; Strube 1987). Inferences are almost certain to produce less accurate reporting than direct recall. Irrespective of whether the respondent is asked to report events or to report attitudes, reports based on recall are likely to be more accurate than those based on inference.

Aided recall refers to procedures designed to reduce forgetting by providing the respondent with memory cues that increase the activation of related memories increasing the chances they will come to mind; at the same time, these techniques should reduce the role of inference in retrospective reporting. What makes (which) retrieval cues “effective”? In contemporary cognitive theories it is assumed that memory representations of attitudes are constructed (see the “belief-sampling model” of Tourangeau et al. 2000) rather than being fully-formed entities that are stored in memory (Cohen 1990; Shum and Rips 1999). Connectionist models of memory seem to capture this idea in that from this perspective memories are distributed across a network of units, defined by the pattern of activation, and are not represented in a single node (Smith 1999). Irrespective of the exact representation, most memory theories assume that activation spreads automatically from one concept or memory to related ones. Thus, providing cues about the attitude object might increase activation of relevant memories, helping respondents to reconstruct previously held attitudes.

Research into cued recall illustrates that no single type of cue (such as time, location, activities) is more effective than others (Sudman et al. 1996; Schwarz and Sudman 1994).³ Cues need to be focused on the specific issue and specific question at hand. In employing cues, one basic and important notion has to be taken into account, which is called “Tulving’s encoding specificity principle” (Tulving and Thompson 1973). This principle posits that cues will lead to memory retrieval only when they themselves were stored in memory at the time of encoding the particular event. Illustrative in that context is the finding that it does not help to provide respondents with “strong cues” during recall if there were only “weak cues” during encoding (Seamon 1980). For a discussion of the encoding specificity principle in the survey response task, see Bradburn and Danis 1984.

3. Cueing for Attitudinal Information

Although cueing procedures for standardized attitude questions in surveys do not exist yet, some studies of comparable procedures provide usable information. First, it is well-known that providing respondents with a checklist of types of behavior or attitudes increases the frequency of reporting such types of behavior or attitudes (e.g., Schwarz and Hippler 1991). Checklists usually consist of lists of response alternatives from which the respondent can choose. These checklists are designed to reduce partial nonresponse, i.e., the omission of an answer to an item, instead of stimulating recall of a specific state-value. Another type of checklist provides the respondent with examples or situations that intend to stimulate memory (Van der Vaart et al. 1995). One more way to provide respondents with cues is the use of multiple or extended questions for one event or state.

³ Temporal cues are generally quite ineffective (Barsalou 1988; Wagenaar 1986).

These cueing procedures result in more information than would be yielded by the standard approach (e.g., Cannell et al. 1977; Cowan et al. 1978; Gibson et al. 1978; Means et al. 1988; Zinkhan 1982). Although these methods have been applied to behavioral questions only, they may be easily adapted to attitude questions.

In the multiple questions procedure the researcher provides the respondent with different cues and frames of reference by asking more than one question to measure one variable. When the target information is, for instance, the number of acute illnesses, such a procedure may involve several questions for different collections of symptoms, such as: “Did you have pains in the abdomen?” or “Did you have trouble breathing?” (Cannell et al. 1977). The procedure can be extended by using additional cue questions to reinstate the context of an event – e.g., implications of the event – the weather during the event, or the journey required to experience the event, and thus better elicit recall. Closely related to the use of “multiple questions” is the use of introductory “supplementary” questions. These questions introduce an issue (e.g., attitudes towards crime in general) and thus stimulate memory before respondents are provided with the related target questions (e.g., about crimes they have personally experienced). As an alternative to using more questions in order to offer cues and frames of reference, one could also employ longer questions. By lengthening questions with (introductory) statements that contain additional memory cues, recall may be aided as well (Laurent 1972; Blair et al. 1977; Sudman and Bradburn 1983).

3.1. A Standardized Cue-list

Assuming that attitudes are represented in memory much as are events, then these existing cueing procedures for behavioral questions can serve as the basis of techniques for enhancing recall attitudes. The present study examines an aided recall technique for attitude questions that provides the respondent with a list of selected cues. In an ideal case, the cue-list would be personalized and would contain cues that the respondents had encoded in their (unemployment) situations in the past. As formulated in Tulving’s encoding specificity principle, cues are effective only if they have been stored in memory at the time of encoding the specific event (Tulving and Thompson 1973). Outside a laboratory environment it was impossible to determine which cue information actually had been encoded in the past (i.e., during the first wave). Furthermore, since we aimed to isolate the beneficial effects of this particular aided recall tool, we tested a standardized set of cues, i.e., the same cues for all respondents (see Section 4 for a discussion of the cues). Although forced on us by administrative circumstances, presenting just one cue-list was easier operationally than presenting a customized list to each respondent. Moreover, a cue-list presented immediately prior to the question is more explicit, and therefore was expected to be more effective than the “long question approach,” in which cues are built into the question.

The cue-list was developed on the basis of information provided by respondents during the first wave, specifically respondents’ open responses to a follow-up question about why they liked or disliked being unemployed. These answers resulted in a limited set of general considerations that could be summarized and represented as cues in the cue-list. These considerations concerned relatively broad issues and resulted in cues that could apply to all respondents. Several cues concerned inherent aspects of being unemployed

(e.g., unemployment causes one to have more time and less money). Though the different cues may have had different weights for different respondents, the aim was to stimulate a balanced reconstruction of the attitude by reminding respondents of various aspects of the past unemployment situation.

In line with Tulving's encoding specificity principle, it should be the case that respondents who did not experience the target unemployment situation lack concrete memories that might be cued by items on the list, rendering the cue-list relatively ineffective at bringing to mind the attitudes reported in the first wave. Thus the following hypothesis is central to this study: applying a cue-list is effective in enhancing attitude recall only if the cues are related to actual circumstances in which the attitude was formed. In the present study this means that the cue-list is expected to improve attitude recall only for respondents who were unemployed at the time of the first interview but not for those respondents who were not unemployed.

4. Research Design and Methods

4.1. The Field Experiment

The data analyzed in this study were collected during two waves of a national, longitudinal study on the process of social integration of young adults between 22 and 30 years of age in the Netherlands. The first wave took place in the autumn/winter of 1987 and the second in the autumn/winter of 1991 ($N = 1,187$). During both waves, data collection was performed by means of a standardized face-to-face interview. The main focus of the questionnaire was on respondents' life histories with respect to education, work, living arrangements, partner relationships, parenthood, and social life (for further accounts of the data collection, see Dijkstra 1993).

The cue-list was applied in a field experiment within the second wave of the study (Van der Vaart 1996). In the first wave (1987) all respondents had reported how they would feel about becoming or remaining unemployed. In 1991 they were asked to report, retrospectively, their attitude towards being unemployed at the time of the 1987 interview. Half of the 1991 sample was assigned to the cue-list condition; the other half of the respondents answered the same question without a cue-list. The random assignment of respondents to cue-list condition was carried out within each respondent sex and age group, as well as within interviewers. Additionally, it was verified during our analysis that effects of sex, age, and educational attainment did not affect the outcome.

4.2. Operationalizations

The agreement between the 1991 retrospective answer (RA) and the corresponding 1987 answer (A), reporting the respondent's 1987 attitude toward unemployment, was used as a measure of consistency between the two reports. In order to estimate the effects of the cue-list on agreement, both absolute disagreement $|RA - A|$ and net disagreement $RA - A$ were examined. Note that the agreement between the answers obtained in 1987 and in 1991 does not necessarily reflect the quality of the retrospective answers in 1991. For example, it is possible the answer given in 1987 (A) may have been invalid (e.g., adjusted to be more socially desirable). Agreement under these circumstances would mean that

both responses are invalid but disagreement could mean that the 1991 answer is valid or invalid but different from the invalid 1987 answer. Certainly, if both answers are valid, then (A) should equal (RA). Our position here is that if (A) \neq (RA) some kind of recall error has probably occurred, acknowledging that part of the discrepancy might be related to factors other than memory, such as self-presentation concerns. Since the hypothesis predicted effects in a specific direction (better recall for previously unemployed respondents receiving the cue-list), we performed one-sided statistical tests.

The 1991 retrospective question was formulated as follows: "In [date of interview 1987] how did you consider the prospect of becoming or remaining unemployed?" The response scale ranged from "very unpleasant" (1) to "very pleasant" (5). In 1987, the same question was posed in the present tense about the then-current situation. The cue-list consisted of a set of potential advantages and disadvantages of being unemployed (Table 1) and was added to the introduction of the 1991 retrospective question about the attitude towards being unemployed. As mentioned earlier, the cues were derived from the answers that respondents had given to the open question about why they liked or disliked becoming or remaining unemployed in 1987. In order to prevent unintended priming, the cues with supposed negative and positive connotations were alternated in the list. We did not present the cues in a different random order for each respondent, since we were working with paper-and-pencil questionnaires in a large-scale survey and the cost of printing individual questionnaires for each respondent would have exceeded our budget. The entire questionnaire including the cue-list was read aloud by the interviewer. The cue-list was also presented visually on a show card. By presenting it in both visual and spoken modalities, we hoped to minimize the risk of primacy and recency effects (e.g., Schwarz, Strack, Hippler, and Bishop 1991). Applying the cue-list procedure hardly affected the formulation of the target question since the interviewer read the cue-list before asking the retrospective question.

To decide whether someone was unemployed or not, a subjective measure of unemployment was available. In 1987 the respondents were asked: "How would you describe your current situation? Are you: 1. unemployed, 2. partly unemployed, or 3. not at all unemployed?". We regarded as "unemployed" those respondents who defined themselves as unemployed or partly unemployed in 1987. Note that those who chose the option "not at all unemployed," are not necessarily employed: they may have also been students or otherwise "not employed."

Table 1. Cue-list (translated from the original Dutch list) presented as part of the introduction to the retrospective 1991 question concerning the respondent's attitude towards being or becoming unemployed in 1987

Financial consequences
More or rather less interpersonal contact
More spare time
Feeling socially useless
More time for hobbies and self-development
Education goes to waste
More time for study
Boredom
More time for activities such as volunteer work

Table 2. Distribution of the attitude towards being unemployed in 1987 as reported concurrently in 1987 (A) and retrospectively in 1991 (RA)

	A(%)	RA(%)
(Very) ^a Unpleasant	88	83
Neither unpleasant nor pleasant	11	14
(Very) ^a Pleasant	1	3
Total (N)	100 (1,187)	100 (1,187)

^a More extreme (*Very Pleasant/Unpleasant*) and less extreme (*Pleasant/Unpleasant*) responses pooled for this tabulation.

5. Analysis

5.1. Data Characteristics and Overall Agreement Scores

In 1987, respondents evaluated the situation of becoming or remaining unemployed very negatively, resulting in a skewed distribution: a great majority of 88% judged that situation to be unpleasant or very unpleasant (Table 2). It must be stressed that a lack of variance in the past attitude does not restrict possible effects of the cue-list; a lack of variance in recall error would entail restriction, but that did not apply here. When respondents recalled their 1987 attitude in 1991, they generally reported a more positive feeling towards being unemployed (mean 1.67, $sd = .83$) than they actually did in 1987 (mean 1.57, $sd = .74$), $t = 3.99$; $df = 1,186$; $p < .001$. The frequency distribution of the agreement scores demonstrated that 25% of the respondents reported a more positive feeling retrospectively, while 18% reported a more negative feeling.

Respondents who were actually unemployed in 1987 (the cue-list target group) did not differ from other respondents (the cue-list control group) with regard to their attitudes toward “being unemployed” in 1987. In spite of that, Tables 3 and 4 indicate that the recall of the respondents who were unemployed in 1987 was significantly less consistent and – in terms of net differences – more positive than that of those who were not unemployed in 1987: of those who were unemployed in 1987, 46% recalled a more positive attitude than they reported in 1987, while this was the case for only 23% of those who were not unemployed in 1987. The percentages of respondents with more negative recall scores, however, were fairly similar for both groups. Absolute disagreement was higher for those who were unemployed than for those who were employed in 1987, $t(1,185) = 3.82$, $p < .001$. The same pattern was evident for net disagreement, $t(1,185) = 4.87$, $p < .001$.

Notice that respondents who were not unemployed were more consistent even though both their 1987 answer and the 1991 recall concerned a response regarding a hypothetical

Table 3. The retrospective 1991 answer (RA) compared to the 1987 answer (A) regarding the attitude towards being unemployed in 1987; by employment status in 1987 and overall

	Unemployed in 1987(%)	Not unemployed in 1987(%)
RA is more negative	15	19
RA equals A	39	58
RA is more positive	46	23
Total (N)	100 (91)	100 (1,096)

Table 4. Disagreement between the retrospective 1991 answer (RA) and the concurrent 1987 answer (A) regarding the attitude towards being unemployed in 1987: mean absolute differences $|RA - A|$ and mean net differences $RA - A$; by employment status in 1987 and overall

	In 1987 unemployed	In 1987 not unemployed
Mean $ RA - A $.85	.50
SD	.86	.66
Mean $RA - A$.52	.06
SD	1.09	.83
<i>N</i>	91	1,096

situation. The greater inconsistency for those respondents who actually were unemployed at the time – including a greater “positivity effect” – suggests that they probably used a different recall mechanism.

5.2. Testing the Cue-list Hypothesis

In line with Tulving’s encoding specificity principle, we hypothesized that the cue-list would be effective only for respondents who had actually experienced the situation to which the cues referred. In the present study, this meant that we expected a cue-list effect for respondents who had actually been unemployed at the time of the previous interview but not for those who had not been unemployed.

The test of the hypothesis (Table 5) showed that the cue-list interacted significantly with the respondents’ past unemployment situation. However, the direction of the cue-list effect was contrary to expectation: the cue-list enlarged the difference scores instead of reducing them. The table also shows that the cue-list had an effect only for respondents who had actually been unemployed in 1987, while it did not influence the reports of the respondents in the control group. This latter effect is in line with Tulving’s encoding specificity principle in that cues affect retrospective reporting only when they correspond to events actually experienced by respondents, but the direction of the effect is not what a simple cueing hypothesis would predict. The interaction between the employment status and the questioning procedure is statistically significant for both the mean absolute ($F(1; 1, 183) = 8.35, p = .004$) and the mean net difference scores ($F(1; 1, 183) = 6.59, p = .01$).

Furthermore, the net difference scores in Table 5 reveal that the “positivity effect” in the recalled attitude of those who were unemployed in 1987 is situated mainly in the cue-list condition. As demonstrated in Table 3, about twice as many respondents who had been unemployed as against not unemployed provided more positive retrospective report than concurrent reports. In Table 5 (lower panel) it is evident that this shift was greater when the cue-list was presented, suggesting that the cue-list leads to more positive reconstruction of attitudes about events that actually occurred.

We performed additional analyses in order to rule out alternative explanations for the cue-list effects. First, the cue-list effect might not be related to the past unemployment situation, but instead might be attributable to the (un)employment status of the respondent in 1991, thus at the time of attitude retrieval. The outcomes did not support this

Table 5. Disagreement between the retrospective 1991 answer (RA) and the concurrent 1987 answer (A) regarding the attitude towards being unemployed in 1987

		Unemployed in 1987	Not unemployed in 1987
RA - A	Cue-list	1.10	.51
	N	40	561
	No cue-list	.65	.48
	N	51	535
RA - A	Cue-list	.80	.08
	N	40	561
	No cue-list	.29	.05
	N	51	535

explanation, since the effects of the cue-list on the agreement scores did not differ for those who were unemployed in 1991 and those who were employed in 1991 (interaction effects: $F(1; 1, 183) = 1.74$, $p = .19$ and $F(1; 1, 183) = 0.53$, $p = .47$ for absolute and net agreement, respectively).

Second, given the small number of unemployed respondents the cue-list effects might be due to differences in socio-demographic backgrounds. There appeared to be no substantial differences in socio-demographic background between the cue-list condition and the control condition, except for one: within the group of respondents who had been unemployed in 1987, the cue-list condition contained fewer women (53%) than the control condition (37%). However, the difference was not statistically significant and had no effect on the agreement scores.

In addition, it must be noted that the effects of the cue-list cannot be attributed to a method effect. If, for example, a greater saliency of the positive cues in the list caused the more positive evaluations of the past attitude, then this would have applied equally to all respondents, which was not the case. The “positivity effect” existed only for those who had been unemployed at the time of the first interview, not for those who had not been unemployed.

In trying to explain the backfire effect of the cue-list one might argue that the cue-list caused a more balanced – and thus more positive – perception of a past unemployment situation which had been experienced as a very negative situation at the time. Positive features may well be overlooked if no cue-list is used. Such effects have often been found regarding recognition tasks: presenting respondents with lists of items results in higher degrees of recall of the presented items (e.g., Schwarz and Hippler 1991).

5.3. Exploring the Cue-list Mechanism: Effects of Respondent Uncertainty

It is well-known that respondents who feel “uncertain” about their retrospective reports – whether about attitudes or nonattitudes – show larger response bias than respondents who report feeling “certain” about it (e.g., Bassili and Krosnick 2000; Draisma 2000; Robinson et al. 1997). In our study, all respondents had been asked how certain they were about their answer immediately after providing the answer on a 5-point scale ranging from 1 (very

Table 6. Disagreement between the retrospective 1991 answer (RA) and the concurrent 1987 answer (A) regarding the attitude towards being unemployed in 1987 by the respondents' certainty about the retrospective answer

	Uncertain	Certain
Mean $ RA - A $.67	.48
SD	.67	.69
Mean $RA - A$.38	.02
SD	.86	.84
<i>N</i>	247	940

uncertain) to 5 (very certain). Certainty did affect consistency of answers. Table 6 illustrates that respondents who felt certain (Categories 4 and 5) produced more consistent scores than those who felt uncertain (Categories 1 to 3). In addition, the net difference scores in Table 6 reveal that respondents who were uncertain about their retrospective answer in 1991 reported a more positive attitude towards being unemployed than they had held in 1987. This was not the case for respondents who were certain of their answer. The lack of certainty apparently gave respondents more opportunity to see the past in a more positive light. This is the case for both absolute ($t[1, 185] = 3.76, p < .001$) and net disagreement ($t[1, 185] = 5.96, p < .001$).

More importantly, the cue-list did not differentially affect positivity of the retrospective report for certain and uncertain respondents, interaction for absolute ($F < 1, n.s.$) and net disagreement ($F(1, 183) = 1.50, n.s.$). The fact that applying the cue-list was unrelated to the positivity effect in the case of uncertain respondents illustrated that the cues as such did not bias recall in a positive direction. This outcome supports our assertion that the cue-list's effect on attitude recall, though in an unexpected direction, was brought about by cueing actual features of the past unemployment situation.

6. Summary and Discussion

The present study tested the effects of adding a so-called cue-list to a retrospective attitude question. The cue-list was applied to a standardized question about the attitude that respondents had held four years earlier regarding their unemployment situations at that time. The cue-list was tested in a field experiment within the second wave of a longitudinal panel study. The cues consisted of features of unemployment, such as "financial consequences" and "more or rather less interpersonal contact" and were designed to enhance the agreement between the recalled attitude and the attitude as reported during the first wave, four years earlier.

Contrary to our expectations, the agreement between the recalled attitude and the then current attitude was lower in the interview condition with the cue-list than without it. However, in line with the hypothesis, the cue-list had this negative effect only on the target group of respondents who actually had been unemployed at the time of the first interview and not on the control group of those who were not unemployed. For the (formerly) unemployed respondents only, the cue-list led to a more positive attitude than had been reported four years earlier. Respondents who had not been unemployed at the time did not

have memories of being unemployed and thus, according to the theory, the cues did not exert any effect on their responses at all. It was argued that the “positivity effect” of the cue-list for the target group of (formerly) unemployed respondents was caused by those cues from the cue-list that reminded respondents of the easily neglected positive features of unemployment, a situation that respondents had originally perceived as very negative. Thus, the discrepancies between their retrospective attitude reports with the cue-list and the contemporaneous reports may have to do with differences regarding what aspects of their unemployment they considered when forming their attitudes.

Additional analyses of the data revealed another “positivity effect” for respondents who – in 1991 – felt uncertain about their retrospective answer, which did not occur for those respondents who reported feeling certain about their answer. This positivity effect was not affected by the cue-list procedure. The finding that the cue-list application did interact with the respondent’s past (un)employment situation but not with the respondent’s level of (un)certainly about the recalled attitude, indicated that the effect of the cue-list could not be attributed to suggestibility at the time of the interview. This conclusion was supported by the finding that the respondent’s unemployment status in 1991 did not interact with the cue-list procedure either. Although it cannot be established definitely in the present study, these outcomes suggest that the cue-list actually triggered existing memories, which is in line with Tulving’s encoding specificity principle (Tulving and Thompson 1973). The cue-list was only effective if the cues were related to the actual past unemployment situation. The positivity effect that arose for “uncertain” respondents was probably caused by another phenomenon. Maybe their lack of certainty, similar to the lack of specific memories (Bernard et al. 1984), gave these respondents the opportunity to view their past as somewhat sunnier than they actually experienced it at the time.

The cue-list outcomes might be partly explained by other factors. Since the cue-list lengthened the question, it may have provided the respondents with more time to recall their past attitudes and it also may have motivated respondents to exert more effort in recalling their attitudes (Sudman and Bradburn 1983). But if those effects had been present in our studies, the cue-list would have shown stronger effects on the reports of uncertain respondents and respondents who were unemployed in 1991.

The backfire of the cue-list shows that designing aided recall methods specifically for attitude questions is a complicated matter. But as long as retrospective attitude questions in surveys aim to reconstruct past attitudes, it may be a valuable endeavor. The effects of the cue list found in this study are rather complex but, stemming from a field experiment within a longitudinal survey, they provide some insights and lessons that may be important for survey researchers and questionnaire designers. First, they demonstrate that it is dangerous (at this moment) for survey questionnaire designers to use specific cues in order to aid attitude recall. If one still chooses to apply a cue-list, this should be done for all respondents in all waves of the study, since the cue-list appears to influence the measurement, probably by influencing the attitude composition. Second, in spite of the fact that the cue-list did not have the intended effect, the outcomes suggest that even in a survey setting, cues may enhance long-term memory for attitudes. This can be a first step in the development of aided recall tools for attitudes.

Laboratory experiments are needed to examine the underlying cognitive processes related to the cue-list and in order to determine which types of cues are encoded in the

target situation and how they can be used to stimulate recall later on. In this way, cues may be developed that fit the encoding specificity principle to a higher degree. The current cue-list consisted of relatively global cues – advantages and disadvantages of unemployment – and some of those cues likely referred to situations that had not been encoded at the time. This probably differed across respondents. It is known from experimental studies that cued recall may be worse than free recall if the cues are not congruous with the original encoding (e.g., Roediger and Payne 1983). Laboratory experiments may lead to more insight into what type of information can be used in surveys in order to trigger past attitudes without the considerations that go into the attitudes, although this may be very domain-specific. In future computer-assisted applications such knowledge might be used to personalize the cue-list by cueing attitude recall with information that has been reported by the respondent earlier in the interview or in earlier waves.

7. References

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