



Causal Explanations of Defection: A Knowledge Structure Approach

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Two experiments examined the construct of causal knowledge structure (CKS) in a social setting. The content, memorial properties, and judgmental consequences of subjects' CKSs regarding the defection of either Soviet citizens to the United States or American citizens to the Soviet Union were assessed through open-ended causal accounts (Experiment 1), intrusions in free recall, unsolicited attributions, open-ended attributions, and personality ratings (Experiment 2). Subjects tended to attribute the defection of Soviets to hardships their country imposed on them and the defection of Americans to characteristics of their personality. Memory intrusions indicated that subjects tended to falsely recall "problems" that Soviets had with their country and falsely recall personality "problems" that Americans had. An asymmetry between memorial and attributional effects was observed: Although memory intrusions occurred almost exclusively when subjects recalled the information after a week rather than immediately, the CKS-based attributional pattern for Soviet versus American defectors was apparent both immediately and after a 1-week delay.

Why do people behave as they do? This simple question occupies many of our waking hours as we go about our daily tasks. In some cases, inferences are produced spontaneously. For example, merely reading that "the secretary solves the mystery halfway through the book" spontaneously produces the inference that the secretary is clever (Uleman, 1987, p. 337). In other cases, such spontaneous dispositional inferences are "corrected" for existing situational pressures, if sufficient cognitive resources are available. For instance, knowing that an anxiously behaving stranger was discussing her sexual fantasies mitigates the attribution that she is dispositionally anxious, but only if the attributor is not simultaneously engaged in additional absorbing cognitive tasks (Gilbert, Pelham, & Krull, 1988).

In still other cases, we engage in concentrated causal analyses of another person's behavior as we try to interpret it and make judgments about it. In deciding how to deal with a world leader during a crisis, a policymaker must make causal attributions about past behaviors and use causal models to make predictions about the future. In deciding whom to hire for the new junior social position, senior faculty members engage in a similar type of causal analysis.

The consequences of mistakes in these various judgments under uncertainty range from the trivial to the devastating. A mistake in judging the intentions of a world leader can have catastrophic results to nations (e.g., war), whereas a mistake in judging the social job candidates has a rather modest impact to a limited number of people. Nonetheless, research from a variety of areas converges on the similarity of judgment processes across domains (e.g., Anderson, New, & Spear, 1985; Anderson & Weiner, in press; Black, Galambos, & Read, 1984; Kahneman, Slovic, & Tversky, 1982; Kruglanski, 1989; Nisbett & Ross, 1980). Specifically, it appears that causal inferences about another person are frequently based on causal knowledge structures. That is, we use packets of information (beliefs, social theories) about how the world works in order to understand a particular act, to make inferences about the person and the situa-

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tion, to predict future acts by the person or by other persons in that situation, and to select our own responses to the person.

Consider the case of an individual who has defected from his or her country to an ideological enemy country. What inferences do we draw about that individual? Why did he or she defect? Was the defection evidence of dispositional attributes? Was there something in the situation that caused the defection? What kind of person would take such drastic action? Answers to these questions determine our impressions of the person and ultimately determine how we act toward him or her. But answers to these questions will be based on our world knowledge about what motivates people in general, about the situation the person left, about the situation the person approached, and so on. This world knowledge (or stored causal inferences) constitutes a causal knowledge structure (CKS; Abelson, 1968, 1973; Hamilton, 1988; Hilton, 1988). A key distinguishing feature of CKSs is that they link the various elements causally. That is, they contain causal beliefs about the target domain.

Of course, several CKSs may apply to a given behavioral act. Which CKS is used will depend on the specific characteristics of the situation, as well as on the momentary and/or chronic accessibility of CKSs to the person making the inferences. For instance, research on attributions for performance outcomes has demonstrated that different knowledge structures are used for interpersonal and noninterpersonal situations (e.g., Anderson, 1983, 1985). Similarly, motivational manipulations appear to exert their impact on attributions not through ego-defensive processes but through their effects on people's selection and application of knowledge structures (e.g., Anderson & Slusher, 1986; see also Kunda, 1987, 1990). Research on the effects of differing goals on the interpretation and memory of events can also be interpreted within this CKS framework (e.g., Bower, 1976; Hoffman, Mischel, & Mazze, 1981; Wyer, Srull, Gordon, & Hartwick, 1982).

TOWARD VALIDATING CAUSAL KNOWLEDGE STRUCTURES

The construct of CKS has a respectable history in social and political psychology. Abelson (1968, 1973) and Kelley (1983) have referred to the construct as implicational molecules, political scripts, and perceived causal structures, respectively. (See also Axelrod, 1976; Conover & Feldman, 1984; George, 1979; Hoagland & Walker, 1979; Schank & Abelson, 1977; Williams, 1984.) Although the concept of CKS has been used to explain many judgments and inference phenomena, tests of CKSs are relatively scarce, and the few existing ones have been criticized on numerous grounds. The most detailed critique of analyses of research on CKSs was provided by

Fiedler (1982).¹ He has noted two major deficiencies in research attempting to validate the CKS construct: theoretical circularity and lack of naturalistic features.

In the first of his criticisms, Fiedler contended that CKS researchers infer the relevant CKS from subjects' responses and subsequently employ that CKS to explain subjects' responses—clearly a circular use of the construct. In his second criticism, Fiedler lamented the extensive prestructuring of stimulus information in CKS research, contending that experimenters overelaborate on the information they provide to subjects (see also Lalljee & Abelson, 1983; Read, 1987). Fiedler noted that experimenters typically present their subjects with ready-made inferences (e.g., referring to an actor's effort or ability) rather than raw informational material (e.g., an event). Such a presentation may force subjects to bypass the encoding and categorization stages of information processing, where CKSs are thought to have powerful effects.

To avoid the problem of circularity, Fiedler suggested three rules. The first rule, testability, refers to testing either structural or functional properties of CKSs (e.g., content distortions or intrusions) so that the construct can be rendered falsifiable. The second rule, variation, refers to establishing a rivalry between CKSs that are applicable to the same stimulus information (e.g., manipulating stimulus information so that it activates different CKSs). The third rule, converging operations, refers to testing structural or functional CKS properties in multiple ways.

Fiedler also suggested three guidelines to reduce the problems associated with the prestructuring of stimulus information. The stimulus information should (a) be ambiguous regarding the proper way of encoding the information, (b) be complex enough to allow CKS-irrelevant interpretations, and (c) provide some causal cues to avoid random guessing biases.

The present research was designed to investigate CKSs using methods that meet the criteria set by Fiedler. In Experiment 1, CKSs were assessed by having (American) college students provide causal accounts of the reasons behind the defection of Soviets to the United States or Americans to the Soviet Union. This experiment was designed to obtain evidence for the existence of a defection CKS, based on subjects' verbal reports. Subsequent tests of the effects of CKSs would thus be independent of the demonstration of their existence.

In Experiment 2, the effects of CKSs were investigated by having subjects read an essay describing an incident of defection. The essay referred to a family of either Soviet or American defectors. For half the subjects, the dependent measures were collected immediately after the presentation of the stimulus materials, whereas for the remaining half, the dependent measures were col-

lected a week later. The effects of CKSs on memory and attributions were assessed. The testability problem was taken into consideration by testing functional properties of the CKSs through memory-oriented dependent measures (e.g., intrusions in subjects' free recall protocols). The inclusion of a delayed measure of recall was intended to maximize the sensitivity of the free recall test in detecting CKS-relevant intrusions. We assumed that intrusions are more likely to occur under delayed relative to immediate recall measures: Delayed recall forces subjects to rely on reconstructive memory, whereas less reconstruction is necessary in the case of immediate recall. The variation problem was considered by manipulating stimulus information (Soviet vs. American defectors) that supposedly would activate different CKSs.

The converging operations requirement was addressed by testing functional qualities of CKSs through both memorial and attributional measures (i.e., free recall, unsolicited attributions, open-ended attributions, and personality ratings). Again, the delayed measures were included in order to maximize the probability of detecting possibly weak effects. (For examples of use of delayed measures in the person perception and attribution literature, see Higgins, Rholes, & Jones, 1977; Peterson, 1980; Wells, 1982.)

Experiment 2 fulfilled the prestructuring criterion in the following manner. First, the experimenter's intervention in the stimulus information (and, subsequently, the interference with subjects' encoding preferences) was minimized by providing subjects with event information rather than ready-made inferences about actors' behaviors. Second, the event information was made sufficiently complex to allow alternative interpretations (e.g., subjects could attribute the defection to faults associated with the political/economic system, the personality of the defectors, or both). Finally, care was taken that the event information would provide for interpretational cues (e.g., by explicitly stating that the defectors opposed a war on foreign soil and fought for social freedoms).

EXPERIMENT 1

The purpose of this experiment was to validate the existence of a defection knowledge structure by eliciting subjects' open-ended causal accounts of defection. Defection is a rare but highly publicized event. We therefore expected most subjects to have given the issue some thought and to be familiar with culturally popular explanations of defection.

Method

Subjects. Sixty undergraduates participated as part of an introductory psychology course option. Subjects were run in groups of five to eight and were randomly as-

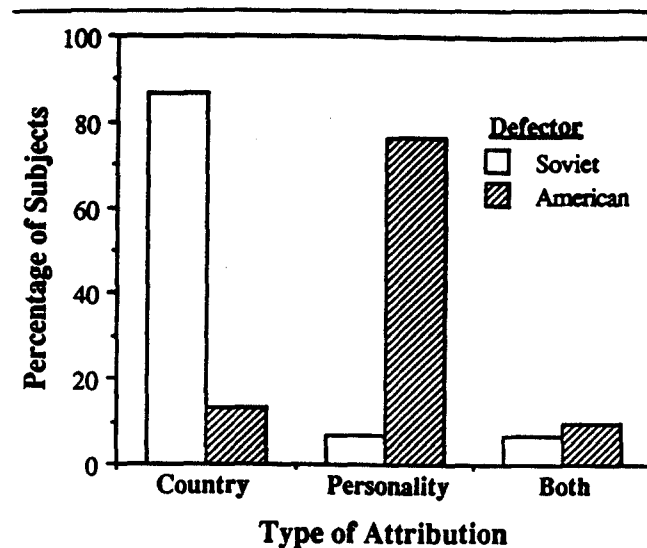


Figure 1 Percentage of subjects generating country-oriented, personality-oriented, or both types of attributions, Experiment 1.

signed to conditions. Dividers set on the tables in the experimental room prohibited subjects from seeing one another when seated.

Procedure. Half the subjects were given a sheet of paper bearing the following question on the top: "Sometimes Soviet citizens defect to the United States. In general, why do you think Soviets defect to the United States?" The remaining half encountered the question "Sometimes American citizens defect to the Soviet Union. In general, why do you think Americans defect to the Soviet Union?" Subjects used the remainder of the page for answering the question.

Coding. Two independent coders assigned the reasons each subject provided for defection into one of the following three categories: (a) Something about the country is accountable for the defection, (b) something about the personality of the defector is accountable for the defection, and (c) the country and the personality of the defector are equally accountable for the defection. The coders agreed on 85% of the cases and resolved disagreements through discussion.

Results and Discussion

As shown in Figure 1, 87% of the subjects who answered the question on Soviet defectors to the United States stated that something about the country (e.g., "an oppressive system," "the elimination of individual freedoms," "no opportunities to get rich") forces defection. In contrast, 77% of the subjects who answered the question on American defectors to the Soviet Union stated that something about the defectors' personality (e.g., "confused," "traitors," "ungrateful to their own coun-

try") forces defection. Overall, the attributional patterns displayed for Soviet versus American defectors were significantly different, $\chi^2(2) = 33.97, p < .0001$.

Thus, these results supply evidence for the psychological reality of a defection CKS. They demonstrated that American subjects (or, more precisely, those in our subject pool) provide different causal accounts of defection depending on the nationality of the defector. Soviets defect because something is wrong with the system; Americans defect because something is wrong with them.

Experiment 1 established the existence of a defection CKS independently of its effects (see Fiedler, 1982). The goal of Experiment 2 was to further validate the defection CKS by examining its memorial and judgmental consequences.

EXPERIMENT 2

Method

SUBJECTS

Subjects were 120 undergraduates fulfilling an introductory psychology course option. The experiment was advertised on the sign-up board as an experiment that might require subjects to return to the laboratory after a week, same day and time. Subjects were run in groups of four to seven and were randomly assigned to conditions. Partitions set on the tables in the experimental room visually separated the subjects.

DESIGN

The design was a 2 (Defectors: Soviets, Americans) \times 2 (Time Period: immediate recall, delayed recall) between-subjects factorial.

PROCEDURE

On arriving at the experimental room, subjects were given the following instructions: "This is a reading comprehension study. You will soon be presented with a newspaper article, published several months ago in the *New York Times*. Please try to comprehend the article and familiarize yourself with it. At a later point in the study you will be asked to answer questions referring to the article." Next, subjects were presented with the "newspaper article." (The article, although not actually from the *New York Times*, was adapted from reports appearing in the press in summer 1986 and involving the defection of an American family to the Soviet Union.) Half the subjects read an article referring to Soviet defectors (Appendix A) and half read an article referring to American defectors (Appendix B). The content of the articles was the same except for the names of the defectors and the corresponding country or location names.

Subjects took approximately 2 min to read the article. After completing this task, half the subjects turned the

page to find instructions telling them that the experiment was over and that they should return a week later. These subjects completed the dependent measures at this later date. No additional information about the experiment was provided to the subjects. The other half of the subjects were immediately paced through the dependent measures in the following order.

DEPENDENT MEASURES

Free recall. Subjects spent 5 min on a distractor task in which they were given a list of the 50 states and were asked to fill in the capitals. They were then asked to recall all information contained in the article, being as specific as possible. Subjects wrote down all information on the same page.

Unsolicited attribution measure. Subjects completed an unsolicited attribution measure (Harvey, Yarkin, Lightner, & Town, 1980) by writing down, in detail, all thoughts or feelings they might have had while reading the essay.

Open-ended attribution question. Subjects answered the following open-ended attribution question: "Why do you think the Andronovs [Perrins] defected to the United States [Soviet Union]?"

Personality ratings. Subjects rated the Andronovs (Perrins) on the personality trait dimensions *intelligent*, *competent*, *warm*, and *moral*. These trait dimensions were selected because they reflect the intellectual (i.e., intelligent, competent) and social (i.e., warm, moral) aspects of the evaluative personality dimension. Work by Rosenberg and his colleagues (Kim & Rosenberg, 1980; Rosenberg, 1976; Rosenberg & Sedlak, 1972; see also Osgood, Suci, & Tannenbaum, 1957) has demonstrated that the evaluative dimension accounts for a great deal of the variance in people's social thinking.

Subjects were also asked to indicate how sympathetic or unsympathetic they felt toward the Andronovs (Perrins). All ratings were made on a scale ranging from 1 to 9, with 1 anchoring the negative pole of the scale and 9 anchoring the positive pole.

Replication of Experiment 1. Finally, subjects answered the same question as in Experiment 1: "In general, why do you think Soviets [Americans] defect to the United States [Soviet Union]?"

Subjects were then debriefed, thanked for their participation, and excused.

Results and Discussion

Free recall. The free recall measure was employed to provide evidence for the existence of the defector CKS by testing its memorial properties. Research on knowledge structure functions (e.g., Bower, Black & Turner, 1979; Bransford & Franks, 1971; Markus, Crane, Bernstein, & Siladi, 1982) has established that knowledge structures

contribute to filling in missing data from a stimulus array. Knowledge structures lead to intrusions of stimuli not previously presented. Bower et al. (1979), for example, found that subjects who read that a story character went through the checkout line in a supermarket and then carried her groceries to the car were likely to "recall" that she had paid the checkout clerk, even though that event was not presented. If causal knowledge structures do exist, then we should be able to observe memory intrusions that have a causal flavor.

The present research examined the intrusion function of the defector CKS in two ways. First, the recall protocols of all 120 subjects were coded with regard to intrusions that were consistent with a "country-oriented" CKS—that is, with the notion that the defection of either the Soviet or the American family was due to deficiencies associated with the existing political or economic system in their respective countries. Examples of such intrusions were (a) the family defected because the husband was fired for political reasons, (b) the family opposed their country's foreign policy, and (c) the family was persecuted (e.g., private mail was opened, they were followed). Two coders, who were blind to the experimental design, to subjects' experimental conditions, and to the purposes of this research, broke down each recall protocol into independent thoughts and then decided which of these thoughts constituted intrusions (i.e., did not match the sentences contained in the original essay). The two coders agreed on 90% of the cases and resolved disagreements through discussion.

We performed both log-linear chi-square analyses and analyses of variance (ANOVAs) on the data. The chi-square analyses employed the number of subjects as the dependent measure. The ANOVAs used the number of intrusions as the dependent measure. (The number of intrusions ranged from 0 to 2.) We conducted both types of analyses because we thought that the memory consequences of CKSs would be best tested and understood through the use and convergence of multiple measures.

To provide evidence for the psychological existence of a country-oriented CKS, more subjects should make country-oriented intrusions for Soviet than for American defectors. The overall chi square was significant, $\chi^2(3) = 16.57, p < .001$. As shown in the left half of Figure 2, 21.7% of subjects reading about Soviet defectors produced country-oriented intrusions as opposed to 8.3% of subjects reading about American defectors, $\chi^2(1) = 4.52, p < .03$. Further, 21.7% of the subjects evidenced intrusions in the delayed recall condition, and only 8.3% did so in the immediate recall condition, $\chi^2(1) = 4.52, p < .03$. The interaction was significant, $\chi^2(1) = 4.05, p < .04$. Although country-oriented intrusions did not differ by nationality of defectors in the immediate recall con-

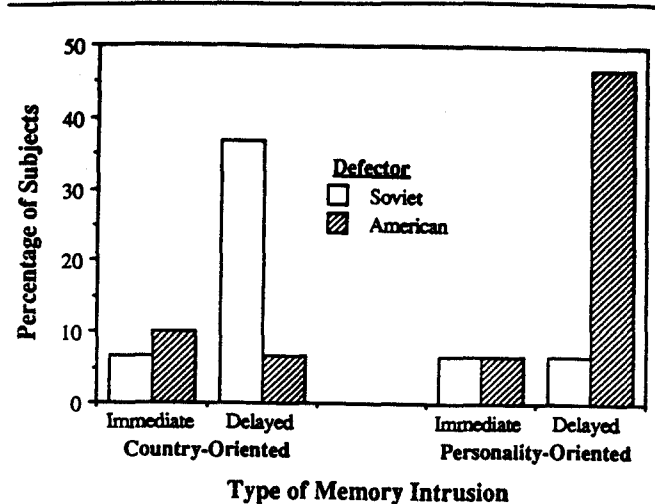


Figure 2 Percentage of subjects with country-oriented or personality-oriented intrusions as a function of defectors and time period, Experiment 2.

dition, in the delayed recall condition most country-oriented intrusions occurred in conjunction with the Soviet defectors.

The ANOVAs produced results consistent with the chi-square analyses. Subjects made more intrusions when presented with the article about the Soviet ($M = 0.29$) than the American defectors ($M = 0.09$), $F(1, 116) = 6.92, p < .009$. Further, subjects made more intrusions in the delayed ($M = 0.29$) than the immediate ($M = 0.09$) recall condition, $F(1, 116) = 6.92, p < .009$. However, it was only under delayed recall that more intrusions associated with the Soviet ($M = 0.50$) than the American ($M = 0.07$) defectors were made, $F(1, 116) = 9.41, p < .002$. (Means were 0.07 and 0.10 in the immediate recall condition for the Soviet and American defectors, respectively.)

To detect intrusions of a second sort, the recall protocols of all 120 subjects were again coded with respect to a "personality oriented" CKS—that is, the notion that the defection (of either the Soviet or the American family) was due to something about the defectors' personality. Examples of such intrusions were (a) the husband was unhappy with his job, (b) the defectors were spies, and (c) the defectors reported on television that they disliked their country. The two coders agreed on 83% of the cases and resolved disagreements through discussion.

To provide evidence for the psychological existence of a personality-oriented CKS, more subjects should make personality-oriented intrusions for American than for Soviet defectors. The overall chi square was significant, $\chi^2(3) = 25.24, p < .0001$. As can be seen in the right half of Figure 2, more subjects committed intrusions in con-

junction with the American (26.65%) than the Soviet (6.7%) defectors, $\chi^2(1) = 8.19, p < .004$. Further, more subjects evidenced intrusions in the delayed recall (26.65%) than the immediate recall condition (6.7%), $\chi^2(1) = 9.17, p < .002$. The interaction was significant, $\chi^2(1) = 3.61, p < .05$. Although personality-oriented intrusions did not differ in the immediate recall condition, in the delayed recall condition most personality-oriented intrusions concerned the American defectors.

The ANOVA results were congruent with the chi-square results. Subjects made more intrusions when presented with the article about the American defectors ($M = 0.29$) than the Soviet defectors ($M = 0.09$), $F(1, 114) = 7.24, p < .008$. Further, subjects made more intrusions in the delayed ($M = 0.31$) than the immediate ($M = 0.07$) recall condition, $F(1, 114) = 10.53, p < .001$. However, it was only under delayed recall that subjects made more intrusions associated with the American ($M = 0.50$) than the Soviet ($M = 0.11$) defectors, $F(1, 114) = 7.24, p < .008$ (means were 0.07 in the immediate recall condition for both the Soviet and the American defectors).

The foregoing analyses showed that more country-oriented intrusions accompanied the article about Soviet defectors and more personality-oriented intrusions accompanied the article about American defectors.² The analyses suggested that both a country-oriented and a personality-oriented CKS component were available to subjects and that these components were differentially used as a function of nationality of defectors.

Unsolicited attributions. Two coders rated subjects' unsolicited attributions on a scale from 1 (*something about the country caused the defection*) through 3 (*something about both the country and the defectors' personality caused the defection*) to 5 (*something about the defectors' personality caused the defection*). Intercoder agreement was high, $r = .87, p < .0001$. The mean coder score for each subject was used in the analyses.

We expected that subjects' CKSs would lead them to interpret the defection of the Soviet citizens as due to imperfections of the Soviet political/economic system and the defection of the American citizens as due to personality characteristics of the defectors. This pattern was confirmed. An ANOVA revealed a main effect of defectors, indicating that subjects tended to make relatively more country (and fewer personality) attributions for the Soviet defection ($M = 2.36$) than for the American defection ($M = 3.28$), $F(1, 116) = 27.84, p < .00001$. The absence of a significant main effect of time period, $F(1, 116) = 2.66, p < .11$, and the absence of a significant interaction, $F(1, 116) = 0.75, p < .39$, revealed that the CKS-based pattern of attributions was not influenced by delay of recall.

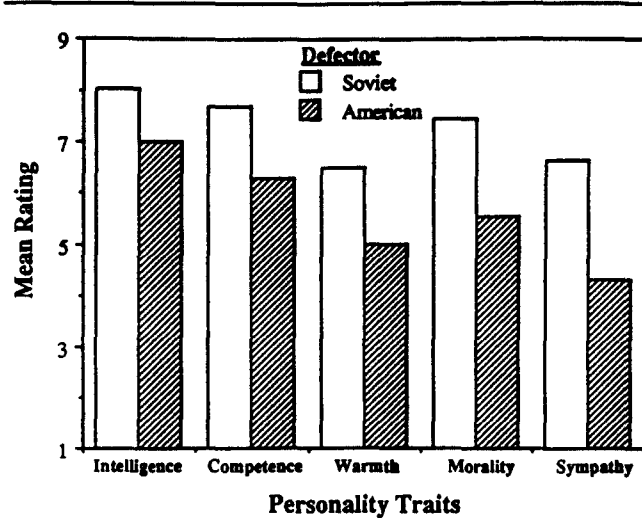


Figure 3 Mean personality trait ratings for Soviet and American defectors, Experiment 2.

Open-ended attributions. The same coding scheme was used for open-ended attributions as for unsolicited attributions. Intercoder reliability was high, $r = .84, p < .0001$. The mean coder score for each subject was used in all analyses.

We expected that subjects' CKSs would lead them to make relatively more country-related attributions for the Soviet defectors and relatively more personality-related attributions for the American defectors. The defectors main effect revealed exactly this pattern ($M_s = 1.63$ and 2.97 for Soviet and American defectors, respectively), $F(1, 116) = 43.71, p < .00001$. This CKS-based attributional pattern was constant across the two recall conditions, as indicated by the nonsignificant time period main effect and interaction, $F_s < 1$.

Personality ratings. It was expected that the defector CKS would manifest itself in more negative perceptions of the personalities of the Perrins than of the personalities of the Andronovs. The American defectors, compared with their Soviet counterparts, were indeed rated as less intelligent, less competent, less warm, and less moral. Furthermore, subjects were more sympathetic to the case of the Soviet than the American defectors. Only the defectors main effects were significant, all $F_s(1, 116) > 15.49, p_s < .00001$. Means are provided in Figure 3.

Correlations between memory and attributions. It is evident from the results reported above that delay of recall affected memory but not attributions. Memory intrusions (i.e., country-oriented intrusions for the Soviet defectors and personality-oriented intrusions for the American defectors) occurred almost exclusively in the delayed recall

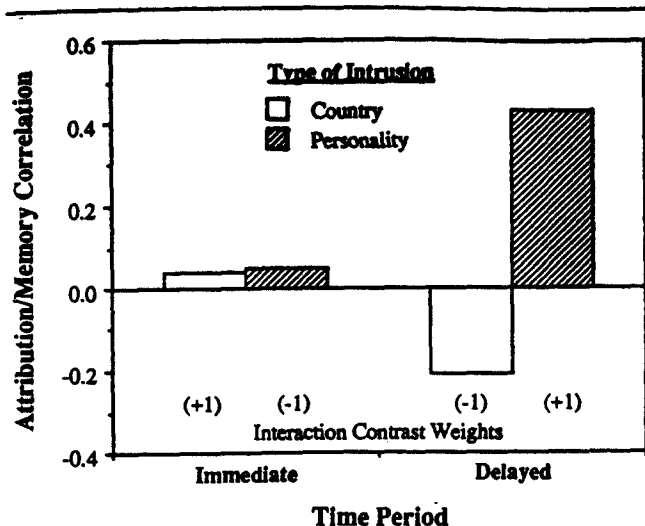


Figure 4 Correlations between attributions and memory intrusions as a function of time period and type of intrusion, Experiment 2.

condition. However, attributional patterns did not differ between the delayed and immediate recall conditions.

It is likely that attributions were made spontaneously and on-line as subjects were going through the stimulus essay (see Hastie, 1984; Pryor, 1986; Uleman, 1987; Weiner, 1985) and were stored in memory separately from the details of the essay. Furthermore, the delayed CKS effect on memory intrusions may take place through recall of the original spontaneous on-line attribution. In essence, delay subjects may have recalled the spontaneous attribution they made during the initial reading of the materials and then used that CKS-based attribution as a memory cue for specific details. If so, then we should expect attributions to correlate with intrusions in the delay conditions but not in the immediate conditions.

To test this hypothesis, we first averaged the two attribution measures (unsolicited and open-ended). Once again, a low attribution score indicates an attribution to country qualities (situational), whereas a high attribution score indicates an attribution to personality qualities (dispositional). These attribution scores were then correlated with number of country-oriented intrusions for the Soviet defectors and with the number of personality-oriented intrusions for the American defectors. The results are presented in Figure 4.

The pattern of correlations is exactly as predicted. In the immediate recall conditions, there was no relation between subjects' attributions for the defection and memory intrusions. However, in the delayed recall conditions, subjects who tended to attribute the defection to country qualities (low attribution score) made more country-oriented intrusions ($r = -.21$), whereas those who tended to attribute the defection to personality qualities (high

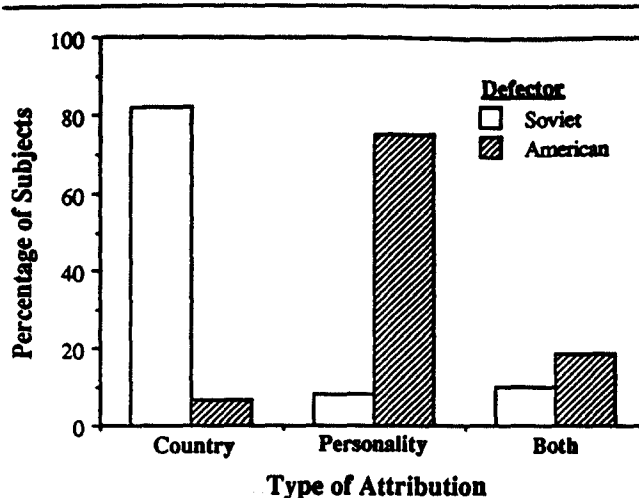


Figure 5 Percentage of subjects generating country-oriented, personality-oriented, or both types of attributions, Experiment 2.

attribution score) made more personality-oriented intrusions ($r = .43$).

To test the significance of this pattern, we adopted the somewhat conservative procedure for testing an interaction pattern of correlations described by Anderson, Jennings, and Arnoult (1988, pp. 983-984). Specifically, we converted the correlations to z scores and constructed the 2×2 interaction contrast. This procedure is conservative in that the error term is inflated because the correlations are not all independent. Nonetheless, the predicted contrast (see contrast weights in Figure 4) was significant, $z = 2.51$, $p < .02$. Thus, although this experiment was not designed to test the notion that delayed memory intrusions result from attributional cues, the data are entirely consistent with this notion.

Replication of Experiment 1. The replication was intended to ascertain that subjects in Experiment 2 held the same CKSs as subjects in Experiment 1. A coding scheme identical to that used in Experiment 1 was adopted. Coders agreed on 83% of the cases and resolved disagreements through discussion. Eighty-two percent of the subjects who were asked why Soviets defect to the United States stated that something about the country causes defection. Seventy-five percent of the subjects who attempted to explain why Americans defect to the Soviet Union stated that something about the defectors' personality causes defection (Figure 5). A log-linear chi-square analysis revealed a significant defectors main effect, $\chi^2(2) = 45.25$, $p < .0001$. Neither the time period main effect nor the interaction was significant, $\chi^2(2) = 0.27$, $p < .87$, and $\chi^2(2) = 0.01$, $p < .99$, respectively. These results are consistent with the assertion that subjects in Experiment 2 held the same CKSs as subjects in Experiment 1.

GENERAL DISCUSSION

Summary of Findings

The major objective of this research was to provide a clean test of the CKS approach to understanding social perception by adopting Fiedler's criteria for validating CKSs. Experiment 1 supplied evidence for the existence of a defection CKS. CKS-consistent intrusions in subjects' free recall protocols in Experiment 2 furnished independent evidence of the effects of CKSs on the processing of social information.

In addition, varied stimulus information instigated the use of different CKSs, as manifested in subjects' attributions. And through a converging operations approach, several functional CKS properties (i.e., intrusions in free recall, pattern of attributions, evaluative tone of personality ratings) were demonstrated. All this occurred with the use of event rather than trait stimulus information, as suggested by Fiedler. Event information was relatively ambiguous and complex and allowed subjects to use their CKSs at the encoding stage.

A final finding of interest was the memory/attribution relation. There was virtually no relation in immediate recall conditions, but moderate correlations emerged in delayed conditions.

Basis of Defection CKSs

What is the basis for subjects' holding the CKSs that we found? The CKSs may be due to a tendency to make situational attributions when someone moves from a less desirable to a more desirable place (e.g., from the Soviet Union to the United States) but dispositional attributions when someone surprisingly moves from a more desirable to a less desirable place. The evaluative tone of personality ratings (i.e., strongly negative ratings for the American defectors and strongly positive ratings for the Soviet defectors) is certainly consistent with the view. People who make such obviously bad decisions (i.e., the American defectors, given the CKS in use) are likely to be seen as less good or more bad on many dimensions (see Schneider, 1973). Alternatively, perceiving the American defectors negatively may have been used as a strategy by subjects in order to distance themselves from the defectors, probably because the defectors harmed their collective self-esteem (see Marques & Yzerbyt, 1988; Marques, Yzerbyt, & Leyens, 1988).

The Memory/Attributions Relation

An interesting finding involved the weak association between memory and attribution/personality ratings. Although memory intrusions increased over time, attributions and personality ratings did not become more extreme. Furthermore, the memory/attribution relation increased with time. This asymmetry can be ex-

plained by considering a reconstructive recall hypothesis. According to this hypothesis, memories for the defection episode in the delayed condition were guided by the subjects' CKSs. Meanwhile, attributions in the delayed condition were retrieved versions that had been spontaneously generated (Hastie & Park, 1986; Weiner, 1985; Winter & Uleman, 1984) when subjects were first presented with the defection information.

An alternative possibility is that subjects in the delayed conditions recalled their spontaneously generated attributions first and then used those attributions as recall cues. Because the spontaneous attributions were themselves affected by the CKSs, they would cue memories (both correct and intrusions) that were largely congruent with the CKSs.

Although the present data do not distinguish between these two related possibilities, they do clearly rule out a third. It is commonly assumed that judgments are based on recalled facts related to the judgment. Had this been the case among our subjects, we should have observed attribution and personality rating shifts across time parallel to the memory shifts. Because such shifts did not occur for either personality or attribution measures, we can assume that these judgments were not based on recalled facts. In addition, the shift in memory/attribution correlations contradicts this third possibility.

Implications for Political Ideology

The present research has implications for conceptualizations of political ideology. The veridicality and nature of political ideology have been the focus of a long-standing debate among political scientists (see Kinder & Sears, 1985, for a critical review). Political ideology has been conceptualized as a "core belief system" (Lane, 1973), "ideological principles" (Marcus, Tabb, & Sullivan, 1974), "general ideological dimensions" (Jackson & Marcus, 1975), and "general political orientations" (Thomas, 1978). Other views of political ideology include people's causal accounts of poverty (Feather, 1974; Furnham, 1982a) and unemployment (Furnham, 1982b; Williams, 1984; see also Axelrod, 1976; Conover & Feldman, 1984; George, 1979; Hoagland & Walker, 1979). The present perspective is certainly compatible with the above-noted ones. However, the present perspective goes beyond the previous ones in its emphasis on uncovering the structural characteristics and processing consequences of CKSs. Thinking of political ideology as a set of CKSs can effectively answer questions about the way citizens process new political information and the way they store and use this information to make attributions, form impressions, or draw inferences. Consequently, viewing political ideology as CKSs can advance our understanding of the specific cognitive processes through which citizens cognize their political world.

Appendix A
 "Newspaper Article" on Soviet
 Defectors, Created for Experiment 2

THE NEW YORK TIMES

Soviet Cancer Researcher and Family Defect to the United States

 Associated Press

WASHINGTON—on Wednesday, Ivan Andronov, a Soviet cancer researcher defected to the United States.

Andronov, his wife and three children arrived in Washington Wednesday after being granted political asylum.

Andronov is a 45-year-old biochemist and oncologist who headed the cancer research laboratory at Prietky Hospital in Leningrad from 1980 until September, 1986.

A man, woman and three children, identified as Andronov, his wife, Iona, and their children, were shown on the U.S. evening news.

Speaking in Russian, Andronov told viewers that he and his wife had opposed the war in Afghanistan and fought for social freedoms in the Soviet Union ever since.

Andronov said that he and his wife made a "very difficult" decision to leave the Soviet Union.

Appendix B
 "Newspaper Article" on American
 Defectors, Created for Experiment 2

THE NEW YORK TIMES

American Cancer Researcher and Family Defect to the Soviet Union

 Associated Press

MOSCOW—On Wednesday, James Perrin, an American cancer researcher defected to the Soviet Union.

Perrin, his wife and three children arrived in Moscow Wednesday after being granted political asylum.

Perrin is a 45-year-old biochemist and oncologist who headed the cancer research laboratory at St. Joseph's Hospital in Houston from 1980 until September, 1986.

A man, woman and three children, identified as Perrin, his wife, Deborah, and their children, were shown on the Soviet evening news.

Speaking in English, Perrin told viewers that he and his wife had opposed the Vietnam war and fought for social freedoms in the United States ever since.

Perrin said that he and his wife made a "very difficult" decision to leave the United States.

NOTES

1. Fiedler (1982) presented his position as a critique of the Kelleyan notion of a causal schema. Kelley (1972) defined causal schemata as abstract causal patterns of thought that are used either individually or collectively in accounting for causality in the social domain. Fiedler's critique was actually directed toward content-dependent CKSs, much like the defection CKSs tested in the present research.

2. Identical results were obtained by analyzing proportion of intrusions rather than number of intrusions.

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