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Individual Differences and Experimentation: Complementary Approaches to Interrogative Suggestibility

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ABSTRACT

Leading questions in police interrogations can have a substantial impact on eyewitnesses' reports. Two different approaches to the influence of interrogator biases are reviewed: the individual differences approach (e.g. Gudjonsson and Clark, this issue) considers the factors that determine why individuals respond differently to leading questions; the experimental approach (e.g. Loftus, Miller and Burns, 1978) examines differences in the conditions under which leading questions are likely to affect witnesses' reports. These complementary approaches have much to offer one another. The individual differences approach could benefit from considering some of the central cognitive mechanisms, such as 'discrepancy detection', that experimentation has identified as mediating suggestibility. Experimentalists, however, could enrich their models by exploring how differences in personality and cognitive abilities influence the impact of leading questions.

Have you ever encountered a question that implied an expected answer? Leading questions frequently plague lawyers in court, survey researchers in the field, and police in interrogation situations. Interrogations of all kinds can be riddled with biases ranging from subtle intonations in pitch to forceful assertions. In the case of police interrogations the issue of interrogator bias is particularly important because lives are often at stake. Since police interviewers are rarely at the scene of the crime, their biases may have little bearing on what really happened. Considering the potentially harmful repercussions of inaccurate police biases, it is important to know precisely how they can influence the reports of witnesses, suspects and victims.

One line of research that has explored the influence of interrogator biases includes the many experiments investigating ways in which post-event suggestions affect subsequent eyewitness report (e.g. Bekerian and Bowers, 1983; McCloskey and Zaragoza, 1985; Schooler, Gerhard and Loftus, 1986). In a typical study, subjects view an event and are later exposed to misleading information about that event in the form of questions or a narrative. In such situations many subjects can be induced to incorporate the inaccurate facts. Experimental studies such as these have helped to delineate the conditions under which people are most

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likely to accept or reject suggested information. For example, waiting a duration before providing misinformation increases the likelihood that subjects will recall the suggested information (Loftus *et al.*, 1978). Warning subjects about the possible presence of misinformation increases the likelihood that subjects will resist misleading suggestions (Greene, Flynn and Loftus, 1982).

A different approach to the influence of interrogative suggestibility is that of Gudjonsson and his colleagues (e.g. Gudjonsson, 1984a; Gudjonsson, 1984b; Gudjonsson and Singh, 1984; Gudjonsson and Clark, this issue).

Rather than examining specific experimental conditions that affect suggestibility, Gudjonsson has primarily examined individual differences in susceptibility to an interrogator's leading questions. Gudjonsson developed a scale for measuring interrogative suggestibility; i.e. the degree to which a witness is inclined to include as part of his or her testimony the communications of the interrogator. While unpredictive of hypnotic suggestibility, this scale has been shown to correlate with witnesses' behaviours in actual interrogation situations. For example, in criminal trials, individuals who retracted confession statements received higher suggestibility scores than individuals who did not confess despite incriminating forensic evidence (Gudjonsson, 1984b). Interrogative suggestibility is also correlated with various personality characteristics, e.g. self-esteem (Singh and Gudjonsson, 1984). Based on numerous individual difference studies such as these, Gudjonsson and Clark (this issue) review the mechanisms that may mediate how interrogator biases influence witnesses reports. Their general approach emphasizes the ways in which witnesses may differ in their response to the interrogator.

Gudjonsson and Clark suggest that even prior to the interrogation witnesses differ in a variety of ways that will bear on how they respond to the interview. First, witnesses differ in their cognitive set; i.e. their expectations about the interrogation. The cognitive set can be affected by a large number of variables including previous interrogation experiences, general attitude towards the police, etc. Secondly, witnesses differ in the coping resources upon which they can draw during the interrogation. The coping resources that witnesses use depend in part on their general cognitive and personality characteristics. Memory ability, intellectual functioning, field dependence, and self concept all contribute to the coping resources that a witness employs. The specific cognitive set and coping resources determine the general coping strategies with which witnesses enter the interrogation. Gudjonsson and Clark list number of general strategies that may be broadly classified as either suggestible (willing to accept the interrogator's premises) or resistant (unwilling to accept these premises).

As the interrogation progresses, witnesses' changing appraisal of the situation may affect their general coping strategies. Three factors are critical to this appraisal?

1. Uncertainty – if the interrogator asks questions about details that the witness is unsure about, the witness may be more disposed to accept the interrogators premises.

2. Interpersonal trust – the witness is more likely to accept the premises of a trusted interrogator; and

3. Expectations – witnesses may produce responses because they believe that a particular response is appropriate, e.g. 'Of course I should be able to remember that detail'.

The final factor that determines the interrogative suggestibility of an individual is feedback. People differ in terms of how they respond to positive and negative feedback. For example, in response to negative feedback Jane may become suspicious that she is being tricked, and may thus become angry and even more resistant. However, in the same situation Bob may experience a reduction in self-esteem that leads him to doubt his own recollections and rely on the cues of the interrogator. In general, however, negative feedback, and to a lesser degree positive feedback, are thought to dispose individuals to be more willing to accept the interrogator's premises.

This model of interrogative suggestibility represents a formidable attempt to make sense of a multi-faceted phenomenon. The emphasis on the role of individual differences in interrogative suggestibility complements the more experimental approach to the influence of post-event suggestions. For example, experimental studies of post-event suggestions have usually ignored the ways in which various personality variables may influence suggestibility (but see Ward and Loftus, 1985). At the same time the individual differences approach is relatively devoid of detail regarding the precise cognitive mechanisms that may mediate the incorporation of post-event suggestions. Throughout their discussion, Gudjonsson and Clark hint at plausible mechanisms without explicitly describing them. It therefore seems reasonable to ask whether any of the experimental findings on the influence of post-event suggestions may be useful for fleshing out some of the cognitive aspects of Gudjonsson and Clark's model.

One of the most important cognitive mechanisms relevant to interrogative suggestibility is the process by which people accept and integrate inconsistent information into their recollections. Gudjonsson and Clark aptly note that in order for people to integrate incorrect information into their personal recollection of the event, they must be at least somewhat uncertain about what actually happened. Gudjonsson and Clark further note that the nature of the original event, as well as the manner in which the question is asked, may contribute to the uncertainty of the witness and consequent predisposition to accept suggestion.

> when the situation is poorly structured in terms of cognitive factors (e.g. having poor knowledge or memory about the interrogation questions) and situation determinants (e.g. ambiguity of the question) then uncertainty will increase the likelihood that the people will utilize external cues as a frame of reference when replying (p. 91).

Implicit in this discussion is the notion that uncertainty facilitates suggestibility by reducing the likelihood that a witness will experience a discrepancy between the original event and the subsequent suggestion. Gudjonsson and Clark do not, however, develop this idea; nor do they elaborate on the other factors that may affect whether discrepancies are detected. It is therefore worth considering some relevant experimental findings that elucidate this issue.

The principle of discrepancy detection is of central importance to the acceptance and incorporation of post-event suggestions (e.g. Tousignant, Hall and Loftus, 1986). According to this principle recollections are most likely to change if a person does not immediately detect discrepancies between post-event sugges-

tions and memory for the original event. Discrepancy detection can be affected both by the strength of the original information in memory and by the manner in which the post-event suggestion is introduced.

Evidence for the influence of memory strength on discrepancy detection comes from studies manipulating the intervals of delay between viewing an initial event, encountering a subsequent misleading message, and engaging in a final test of recollection (Hertel, Cosden and Jonson, 1980; Loftus, Miller and Burns, 1978). These studies indicate that the longer the duration between the witnessing of an event and the encountering of a post-event suggestions, the more likely subjects are to incorporate the suggestion in their final recollection. One interpretation of these results is that the elapsed time between encoding the event and encountering the post-event suggestion allows some forgetting of the original memory, which decreases the likelihood of discrepancy detection.

Evidence that discrepancy detection is affected by the manner in which the post-event suggestion is introduced comes from studies that vary the sentence construction of misleading suggestions. In one study, scrutiny given to the post-event suggestion was manipulated by presenting the misleading suggestion as either the object of an auxiliary clause or as the focus of the question (Loftus, 1981). Subjects were more likely to claim that they saw a non-existent moustache if the moustache was presented to them within the question 'Did the intruder who was tall and had a moustache say anything to the professor?' than if it was suggested via the question 'Was the moustache worn by the intruder light or dark brown?' Presumably the latter question, by explicitly directing subjects' attention to the moustache, caused subjects to more scrupulously scrutinize their memories and detect a discrepancy.

Other studies have affected discrepancy detection by manipulating the manner in which the post-event suggestion is read. Greene *et al.* (1982) warned subjects prior to reading a narrative containing misleading post-event information that they should be on the look-out for discrepant information. Subjects receiving this warning read the post-event questions more slowly than control subjects, and were less likely to incorporate the discrepant information. Tousignant *et al.* (1986) further showed that simply directing subjects to read post-event narratives slowly as opposed to quickly increased subjects' discrepancy detection, and decreased the incorporation of post-event information.

Taken together these experiments indicate that the incorporation of post-event suggestions can be affected by a variety of factors, all mediated by the general principle of discrepancy detection. Given its salience, it is worth considering whether any component of Gudjonsson and Clark's model can be understood in terms of this principle. In fact many components can. Interpersonal trust between witness and interrogator, for example, can be conceived in terms of discrepancy detection. If witnesses are suspicious, it is likely that they will scrutinize the interrogator's questions and consequently identify discrepancies (Dodd and Bradshaw, 1980).

The influence of negative feedback may also be understood in relation to discrepancy detection. Negative feedback may cause subjects to become less confident in their own knowledge, and thus make them less prone to compare the suggestions of the interrogator to their own memories. In addition, as Gudjonsson and Clark suggest, negative feedback may affect witnesses' mood by increasing

their anxiety. Witnesses who are flustered by negative feedback may experience a decreased ability and/or motivation to carefully scrutinize the contents of the interrogator's questions.

The influence of positive feedback is more problematic with regard to discrepancy detection. Previous research suggests that individuals are most likely to incorporate inaccurate details if they do not carefully attend to the inaccurate facts (Greene *et al.*, 1982; Loftus, 1981; Tousignant *et al.*, 1986). As a result, conditions most likely to elicit the recollection of inaccurate facts often involve relatively unmemorable suggestions. In fact, subjects have been shown to be most affected by a post-event information in conditions in which they are least likely to recall having received it (Loftus, 1981). This observation poses a dilemma for understanding how positive feedback could facilitate suggestibility. How is it possible to reinforce people for a behaviour (i.e. accepting post-event information) when they do not realize that they have engaged in that behaviour? Part of the answer may be simply to acknowledge Gudjonsson and Clark's observation that positive feedback is far less effective than negative feedback. Indeed it may well be that people's failure to realize that they have been affected by post-event suggestions may account for why positive feedback is relatively ineffective.

It seems self-evident that positive reinforcement be most effective when witnesses realize what it is that they are being reinforced for. Thus one case where positive feedback might be expected to be effective is with relatively obvious suggestions; i.e. suggestions that clearly communicate an expected response. While obvious post-event suggestions have been shown to be less effective in influencing people (Loftus, 1981), there are two situations in which they might be expected to have a significant effect: (1) when subjects detect a discrepancy but nevertheless decide to comply with the interrogator, and (2) when people accept information about details for which they have little original memory. In response to positive feedback, some witnesses may incorporate an obvious suggestion by simply disregarding their own memories and complying with the interrogator. According to Gudjonsson and Clark, however, accepting interrogator suggestions in this manner constitutes compliance rather than suggestibility. The only other case in which very obvious suggestions are likely to be incorporated is when subjects have little memory for the original details and therefore are unlikely to detect discrepancies. When the witness does not know what really happened, the misleading suggestion can be obvious without causing the subject to catch a discrepancy. Here, witnesses may recall having accepted a suggestion and may, in response to positive feedback, become increasingly suggestible in the future.

The principle of discrepancy detection may also apply to some individual differences in interrogative suggestibility. While Gudjonsson and Clark do not explicitly discuss the process of discrepancy detection, they do acknowledge that differences in cognitive abilities may contribute to uncertainty (a presumably important ingredient in determining whether discrepancies are caught).

> It follows that individuals who have little processing capacity, or whose capacity is being temporarily encumbered or interfered with by internal or external factors, have the weakest encoding and retrieval structures to draw from as a frame of reference during questioning, resulting in uncertainty which must be present for a suggestible response to occur (p. 92).

Gudjonsson and Clark suggest that cognitive abilities such as encoding and retrieval structures may contribute to subjects' degree of certainty. Although they do not explicitly describe this process, presumably people who tend to be less certain as a result of poor memory abilities are less able to catch discrepancies between the original event and subsequent suggestions. In line with this reasoning, Gudjonsson (1983) reports that poor memory recall correlates with suggestibility. Unfortunately, Gudjonsson's analysis of memory recall was based on subjects' memory performance for the same items on which the misleading suggestions were later directed. Since suggestibility on particular items by definition necessitates poor memory for those items, Gudjonsson's analysis is somewhat confounded. A more appropriate assessment of the relationship between general memory ability and suggestibility requires the examination of suggestible individuals' memories for items on which they have not been misled.

Tousignant *et al.* (1986) compared the memory performance of susceptible and resistant subjects for 'filler' items that had not been referred to inaccurately. If memory abilities were associated with discrepancy detection then one might expect that people who were less able to recall filler questions would be more susceptible to misleading questions. Surprisingly, however, susceptible subjects were just as accurate as resistant subjects on filler items, arguing against Gudjonsson and Clark's suggestion that differences in encoding or retrieval abilities contribute to suggestibility. In addition, we have preliminary evidence that there is no relationship between discrepancy detection and verbal working memory ability (an individual difference variable highly correlated with overall reading ability – see Daneman and Carpenter, 1980). Thus it appears that individual differences in cognitive abilities may not always be as directly related to suggestibility as Gudjonsson and Clark would have us believe.

One cognitive individual difference variable that does appear to play a role in discrepancy detection is the time subjects allocate to reading post-event text. Tousignant *et al.* (1986) observed that subjects who spontaneously read post-event narratives quickly caught fewer discrepancies and were more likely to incorporate suggested details than subjects who read more slowly. It thus appears that the care with which subjects read post-event information may represent an individual difference in cognitive style that bears on discrepancy detection.

Clearly, the individual difference approach could benefit from further analyses of the cognitive individual differences that contribute to interrogative suggestibility. Inclusion of additional cognitive mechanisms, such as the role of discrepancy detections in witnesses' processing of post-event suggestions, would also strengthen the model. On the other hand, one of Gudjonsson and Clark's strongest contributions to the study of interrogative suggestibility is their increased emphasis on factors not generally considered in experimental studies. Issues such as mood, self-esteem, and field dependence are topics that have generally been omitted from most discussions of the influence of post-event suggestions. While notable exceptions exist (e.g. McCloskey and Zaragoza, 1985; Wagenaar and Boer, 1986), experimentalists often treat people as if they all behave the same way. Subjects' performance within different conditions are compared, and some generalization is made to the effect that people perform one way under one condition and a different way under another condition. Experimentalists often appear to forget that the performance of the 'average subject' is a convenient

summary statement, but may reflect the actual performance of few. The individual differences approach appreciates that people come into a situation with varying backgrounds and abilities. By exploring the implications of these individual differences in conjunction with experimental studies of cognitive factors we may be able to make yet further advances in our understanding of interrogative suggestibility.

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