# Misinformation and false memories

M. Garry, H. Hayne (Eds. 2006). **Research inspired by the work of Elizabeth F. Loftus**. *Theme Issue of Applied Cognitive Psychology 20 (5),* 561–721.

Numerous studies show how people can falsely remember events they witnessed after having been exposed to 'misleading' information. Memories about a witnessed car accident are reported differently, or even changed, dependent of information given or questions asked about the event afterwards (e.g. numerous studies by Elizabeth Loftus).

This special issue of ACP presents 18 papers in honour of Loftus' work. Nemeth & Belli (pp. 563-573) show that information in photographs is remembered more accurately with schema-consistent items (a bookshelf in an academic office) than when schema-inconsistent items are shown (a picnic basket in the same office). Two studies (e.g. Itsukushima et al., pp. 575-581) demonstrate that false memories are reported more often after exposure to written false information than to audio-visual false information. Chan & McDermott (pp. 633-639) show that people often remember the pragmatic inferences they made on the basis of an utterance ("the shelf broke") as if these were uttered, instead of the actual utterance ("the shelf was weakened"), which is explained by the idea that memory is partly a sense of recollection, and partly of familiarity. Gerrie et al. (pp. 689-676) demonstrate that people also systematically develop false memories when there is no suggestion or misleading information, only unseen aspects of an event.

For example, subjects saw a movie of a woman making a sandwich in which some actions were missing, and confidently but falsely remembered about 20% of unseen information from the event.

All in all, this special issue shows that we hold memories (with great self-confidence, emotion and intensity) which are in fact not accurate (Garry & Hayne, pp. 561-562). Research in this area deepens our understanding of autobiographical memory, and has many implications for the reliability of eyewitness reports or the design of factual and behavioural questions in interrogations or surveys.

*(Bregje Holleman)*

T. Smeets, M. Jelicic, M.J.V. Peters, I. Candel, R. Horselenberg, H. Merckelbach (2006). **"Of course I remember seeing that film". How ambiguous questions generate crashing memories.** *Applied Cognitive Psychology 20 (6),* 779–789.

Often, survey questions ask respondents for facts, such as passed experiences or behaviours from their own lives. These memories are sensitive to various types of error. This paper investigates whether people falsely remember having seen television footage of well-known public events which were widely covered in the media, but of which in fact no actual footage exists (e.g. the fatal car accident of Princess Diana in 1997). This is called the crashing memory paradigm. Why do so many people claim to have seen this type of film material? It might be an eagerness to please the interviewer or researcher, but it might also be a case of false memories. Also they may have misunderstood the question, and assumed it referred to film material about the event, rather than the event itself.

This paper investigates whether the ambiguity of the question wording and the extent to which the question conveys misleading information affects the percentage

of reported false memories (i.e. the proportion of *yes* responses). The target event used in this study was the assassination of Pim Fortuyn, a famous Dutch politician, in 2002. One group was asked an ambiguous question (Did you see the amateur film of the Fortuyn shooting?), a second group received a more specific misleading question (Did you see the amateur film of the moment Fortuyn was shot by Volkert van der G.?), a third group got a specific low-suggestive question (Did you see an amateur film of the moment Fortuyn was shot by Volkert van der G.?) and a fourth group was asked a neutral non-suggestive open question (Do you remember whether there was a film of the moment Fortuyn was shot by Volkert van der G.?).

The results show that overall many respondents report having seen the footage (38%), but the proportion varied between 27% and 63% depending on the wording of the question. The highest percentage of misreports was for the ambiguous question, suggesting that the respondents assumed it was about footage of the events surrounding the murder, rather than the murder itself. Even the neutral question in the fourth group misled 27% of the respondents. Grice's maxims may be an explanation for this: if a question is asked, respondents assume that the information in it is as clear as possible and trustworthy. Unlike previous work by Loftus, no differences were found between the second and third group (*the* vs *a*); maybe this manipulation of specificity was too subtle in this case.

*(Bregje Holleman)*

# Designing good surveys

J.D. Smyth, D.A. Dillman, L.M. Christian, M.J. Stern (2006). **Comparing check-all and forced-choice question formats in web surveys.** *Public Opinion Quarterly, 70* (1), 66–77.

A question format that is often used in web surveys and in paper surveys is the *check all that apply* question, in which respondents are asked to mark all options that are appropriate from a list of response options. In telephone surveys, this format is considered to be too complicated for the interviewer as well as the respondent. In these interviews, usually a forced-choice question is chosen where respondents provide an answer for each item in the list. The assumption is that both different question formats illicit similar answers. The issue raised in this article is whether that assumption is correct, as different response strategies may be used in both question formats. In a *check all* question, respondents can opt for a quick answer and satisfy the researcher by checking the first option that is plausible, and not reading the others. In the *yes/no* format, they are forced to read and elaborate on every item in the list.

Data in this paper suggest that this difference in processing does exist. Both question types were compared in web surveys, using questions about behaviours/facts as well as about opinions/attitudes. Results show that a list of items in a check all format results in less options being selected compared to a forced-choice yes/no format. When answering forced-choice questions, respondents spend more time, suggesting a deeper