Verbal Overshadowing: A Special Issue Exploring Theoretical and Applied Issues

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SUMMARY

Over a decade of research has investigated the verbal overshadowing effect. This phenomenon, first demonstrated by Schooler and Engstler-Schooler (1990), indicates that verbally describing a non-verbal stimulus (such as a face) can impair subsequent attempts at identification of the stimulus. Taken together, the current special issue on verbal overshadowing explores three critical aspects of the effect: (a) debates regarding the theoretical mechanisms governing the phenomenon, (b) boundary conditions that might define when the effect is observed, and (c) new domains and paradigms that explore the generality of the phenomenon. Copyright © 2002 John Wiley & Sons, Ltd.

Obtaining a verbal description from a witness immediately following an incident has been considered standard protocol by criminal investigators. This description can be used for a variety of reasons throughout the investigative process, the least of which include identifying potential suspects in the immediate vicinity and as a basis for comparison to all suspects identified during the course of the investigation (van Koppen and Lochun, 1997). However, a series of studies by Schooler and Engstler-Schooler (1990) demonstrated that the act of generating a verbal description might do considerable harm to a witness's memory for the perpetrator when they are later asked to make an identification from a photo array. In particular, Schooler and Engstler-Schooler asked participants to view a 30-second video depicting a bank robbery, followed by a 20-minute distractor task in which participants were asked to answer questions about several passages they had read. Participants were then randomly assigned to one of two conditions representing the critical manipulation. One group was asked to write a detailed description of the robber's face, focusing on each facial feature and using the full 5 minutes to generate their description, while a second group was assigned an unrelated activity. Immediately following this manipulation, all participants were asked to attempt an identification of the robber from a target-present photo array containing eight faces. Intriguingly, their results indicated that participants who had provided a description of the robber (38% accuracy) were significantly less accurate on the identification task when compared with participants in the no-description control condition (64% accuracy). In five subsequent studies, Schooler and Engstler-Schooler repeatedly demonstrated this deleterious effect of generating a

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verbal description on later identification accuracy, a phenomenon they termed 'verbal overshadowing'.

Subsequent research has largely confirmed the findings of Schooler and Engstler-Schooler (1990), and the empirical literature has been summarized in several reviews (Schooler *et al.*, 1996, 1997). In a recent meta-analysis of the verbal overshadowing phenomenon, Meissner and Brigham (2001) examined the robustness of the effect across 29 experimental comparisons involving over 2000 participants. Their inclusion of studies was focused upon those investigating verbal overshadowing in the eyewitness (or face) identification paradigm. Across the sample of studies there was a small, yet significant, negative effect (Fisher's $Z_r = -0.12$), indicating that participants who described a target face were 1.27 times more likely to later *misidentify* the face from a lineup containing similar distractors when compared with participants who did not generate a description prior to identification.

The current special issue of *Applied Cognitive Psychology* was developed in part to examine three critical aspects of the verbal overshadowing effect that appear deserving of further study. First, although more than a decade of research has explored the overshadowing effect, the mechanisms underlying this phenomenon are continually debated among researchers. In a recent review, Schooler and colleagues (1997) proposed that the interference caused by verbalization might result from the type of memory processes demanded by the paradigm (e.g. configural versus featural processing of faces), a theory they termed *transfer inappropriate retrieval*. Several articles in the current issue further explore and provide support for such a processing account, including those authored by Brown and Lloyd-Jones, Finger, and Fiore and Schooler.

An alternative account of the verbal overshadowing phenomenon involves the effects self-generated misinformation when participants attempt to retrieve the target stimulus from memory during the description task. Such a *recoding* or *retrieval-based effect* was first proposed by Schooler and Engstler-Schooler (1990), but was later discounted due to the lack of evidence for the relationship between the quality of the verbal description and subsequent identification accuracy. However, Meissner *et al.* (2001) have recently demonstrated that retrieval-based effects can lead to verbal overshadowing through a manipulation of output criterion on the description task. Replication and extension of this line of research is discussed in the current issue, including articles authored by Brown and Lloyd-Jones, MacLin and colleagues, and Meissner.

While the overshadowing phenomenon has been replicated on numerous occasions, not all studies have consistently observed the phenomenon (e.g. Meissner *et al.*, 2001; Memon and Bartlett, 2002; Memon and Rose, 2002; Yu and Geiselman, 1993). Thus, a second aspect that the current special issue will address involves the boundary conditions necessary for obtaining the effect. One critical aspect appears to involve the instructions provided to participants at the time of the description task. For example, Meissner and Brigham's (2001) meta-analysis found that overshadowing effects were more likely to occur when participants were given an elaborative, as opposed to a standard (free recall), instruction during the description task. Research on the influence of such instructional effects has continued, including articles in the current issue authored by Kitagami and colleagues, Meissner, K. MacLin, and O. Maclin and colleagues. In addition, articles by Finger and by Pelizzon and colleagues explore several theoretical factors that can attenuate or 'release' the effects of verbal overshadowing. Moreover, Kitagami and colleagues provide an intriguing analysis of the influence of similarity in lineup composition on the likelihood of observing overshadowing effects.

Finally, while the focus of the research has largely been in examining the overshadowing effect within the eyewitness (or face) identification paradigm, the basic phenomenon has also been observed when participants attempt to generate descriptions of other 'difficult-to-describe' stimuli such as colors (Schooler and Engstler-Schooler, 1990) or abstract figures (Brandimonte *et al.*, 1997), or other non-visual tasks such as wine tasting (Melcher and Schooler, 1996), decision making (Wilson and Schooler, 1991), and insight problem-solving (Schooler *et al.*, 1993). The current issue continues to expand the domains of application and paradigms of interest to researchers in investigating the generality of the verbal overshadowing effect. For example, Perfect and colleagues provide an initial demonstration of overshadowing in voice recognition, while Fiore and Schooler show the effect when participants attempt to verbally describe their mental model of a spatial map. Furthermore, Pelizzon and colleagues provide a report of their continued research on verbal overshadowing in an imagery-based memory task. Finally, Brown and Lloyd-Jones examine the effect of 'piecemeal' versus 'elaborative' description instructions in their novel 'multiple-face presentation paradigm'.

Taken together, we believe that the current special issue has yielded a series of empirical contributions that further our understanding of the theoretical and applied aspects of the verbal overshadowing phenomenon. We are also grateful for the commentaries provided by Jonathan Schooler and Anders Ericsson, and the intriguing propositions that they set forth for future investigation of the effect. We anticipate that the verbal overshadowing effect will continue to be pursued for many years to come.

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