Commentary

MEMORY DISTORTIONS DEVELOP OVER TIME: A Reply to Horn

Larry R. Squire, 1,2,3 Heike Schmolck, and Elizabeth A. Buffalo⁴

¹Veterans Affairs San Diego Healthcare System; Departments of ²Neurosciences and ³Psychiatry, University of California, San Diego; and ⁴Laboratory of Neuropsychology, National Institute of Mental Health

Horn points out that the civil-trial verdict in the O.J. Simpson case was announced 16 months after the criminal-trial verdict. We tested memory for the circumstances surrounding the announcement of the criminal-trial verdict at 15 months or 32 months after the event, and we compared the recollections we obtained to what the same individuals had told us 3 days after the verdict (Schmolck, Buffalo, & Squire, 2000). We found memory to be less accurate and more prone to distortion after 32 months than after 15 months. Horn suggests that the announcement of the civil-trial verdict, which intervened between our two tests, may have interfered with memory for the criminal-trial verdict and thereby may have impaired memory accuracy.

Horn's comment is a reminder of the difficulties inherent in carrying out research in natural settings outside the laboratory. Although we cannot rule out conclusively the possibility that interference was an important factor in the recollections we recorded, we believe it quite unlikely.

First, the criminal trial was televised, it received enormous media attention, and the day and approximate time that the verdict was to be announced were known beforehand. In contrast, the civil trial was not televised, it received only moderate media attention, and the verdict was not anticipated. Thus, the extent of public interest in the announcement of the civil-trial verdict did not approach the public interest that attended the criminal trial and its verdict. Second, our findings of inaccurate memories at 32 months after the criminal-trial verdict conform closely to the findings reported at 32 to 34 months after the Challenger Space Shuttle disaster (Neisser & Harsch, 1992). For example, the recollections of our participants received a mean accuracy score of 3.3 on a 7-point scale, and recollections of the Challenger disaster received a mean accuracy score of 2.95 (when the same scoring system was applied to both sets of data). These findings suggest that inaccuracies in recollection are rather common after intervals as long as nearly 3 years, and that interfering events are not needed to disrupt memory.

Finally, in the 35 transcripts of recollections obtained at 32 months

after the criminal verdict, we did not find a single reference to the civil trial. As we reported, 14 of these 35 recollections were classified as major distortions, that is, recollections that described a completely different situation than was described at the time of the verdict. Following on Horn's suggestion, we have examined the content of these 14 recollections in more detail, especially with respect to the time of day referred to as well as other content that might distinguish between the criminal and the civil trials. None of the narratives gave any hint that the rememberer was confusing the civil trial with the criminal trial. Indeed, 11 of the 14 recollections referred to a time during the day before the civil-trial verdict was announced (the criminal-trial verdict was announced in the morning on October 6, 1995; the civil-trial verdict was announced after 7 p.m. in the evening on February 4, 1997). Further, some of the recollections included reference to events that could have occurred only in the criminal trial (e.g., remembering the jury forewoman reading the verdict on television).

Taken together, these considerations provide evidence against the suggestion that our respondents were confusing the civil trial with the criminal trial. Inasmuch as we found recollections to be largely accurate after 15 months, we suggest that marked qualitative changes in memory can occur between 1 and 3 years after a noted public event and that the passage of time is the primary determinant of memory accuracy.

REFERENCES

Neisser, U., & Harsch, N. (1992). Phantom flashbulbs: False recollections of hearing the news about Challenger. In E. Winograd & U. Neisser (Eds.), Affect and accuracy in recall: Studies of "flashbulb" memories (pp. 9–31). Cambridge, England: Cambridge University Press.

Schmolck, H., Buffalo, E.A., & Squire, L.R. (2000). Memory distortions develop over time: Recollections of the O.J. Simpson trial verdict after 15 and 32 months. Psychological Science, 11, 39–45.

(RECEIVED 7/1/00; ACCEPTED 7/7/00)

Address correspondence to Larry R. Squire, VAMC (116A), 3350 La Jolla Village Dr., San Diego, CA 92161; e-mail: lsquire@ucsd.edu.