

in memory. Only when it is clear that the fact cannot be found is an inferential strategy evoked (e.g., Lachman & Lachman, 1980, Lehnert, 1977). There are a number of results that support the notion that direct-retrieval is not always the first strategy of choice. For example, data of Reder (1979) indicated that subjects make inferences even when the information is stored in memory. In those studies, subjects were asked to read short stories and make judgments about the plausibility of assertions on the basis of the stories that they read. Some of the statements to be judged had actually been presented in the story as part of the story (randomly determined for each subject). The plausibility of the test sentence with respect to the story affected judgment time even when the item had been explicitly presented. Although there was a clear RT advantage for stated (explicit) probes over not-stated probes, the plausibility of the statements affected stated probes as well. Figure 13.3 plots the data from the stated and not-stated conditions for the highly and moderately plausible probes when tested immediately after reading the relevant story.³

One explanation for faster RTs for highly plausible statements assumes that the probability of drawing the inference and then finding it in memory is greater for the highly plausible statements, and that subjects always try to search memory for a specific fact first. The problem with this explanation is that it predicts no plausibility effect for probes that had been stated in the story. A different explanation for both the plausibility effect and the speed advantage for stated probes involves a simple race between the direct retrieval process and the plausibility process, where both processes execute in parallel. By assuming that sometimes one process wins and sometimes the other wins, both effects can be accounted for, the faster times for presented statements and for highly plausible statements.

The simple parallel race model just described can be ruled out, however, if one considers the data of Reder (1982). Those experiments were quite similar to Reder (1979), except that some of the subjects were asked to make recognition judgments instead of plausibility judgments. Judgments were either made right after reading a story, after reading 10 stories, or 2 days after reading all 10 stories. In some conditions, subjects actually were faster at plausibility judgments at longer delays than at shorter delays. This is a result that a simple race model cannot explain. Subjects were faster at a delay in those situations where the direct retrieval strategy could not produce a correct response, namely for not-stated plausible inferences. Figure 13.4 presents the response times and error rates for the two tasks (plausibility and recognition) as a function of delay of test and whether the probes had been stated in the story.

An explanation that can account for this result is to assume that at the shorter delay intervals, subjects are inclined to try the direct retrieval strategy first. That

³The experiment also included "primed" inferences, and inferences that were verb-based, i.e., they immediately followed from the verb in an assertion. The statements were also tested at various delays. The subset of data graphed here seemed most representative and relevant.

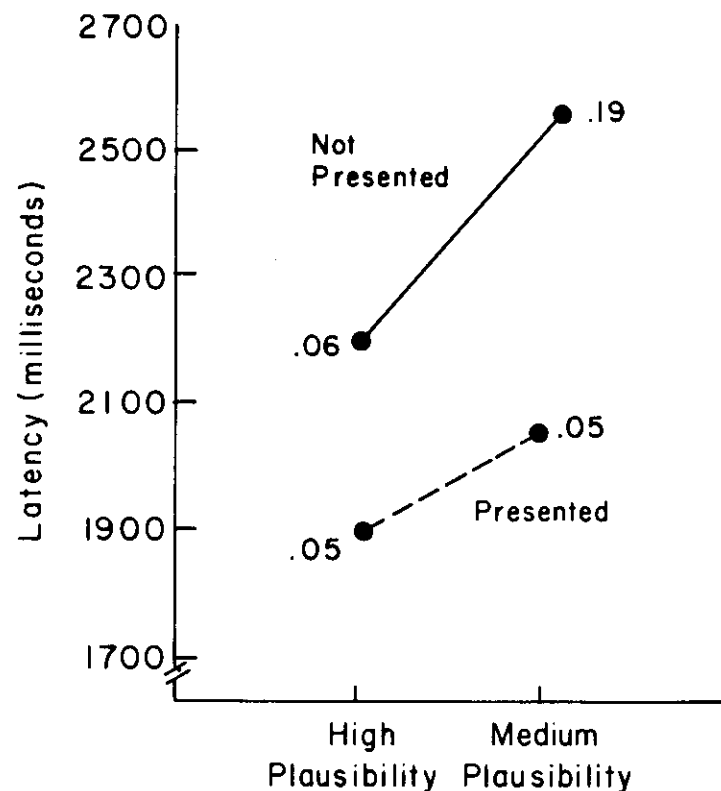


FIGURE 13.3. Mean RT for correct plausibility judgments (and error rates), plotted as a function of plausibility of the test probe and whether it had been presented in the story. (Adapted from Reder, 1979, Experiment 1, Fig. 1.)

strategy will produce the correct response in many conditions. However, when subjects are asked to make plausibility judgments and fail to find the probe in memory, they must go on to try the plausibility strategy or risk making an error. At longer delay intervals, there is an increased tendency to try the plausibility strategy first. This means that for not-stated plausible inferences, the useless direct-retrieval strategy is avoided, making overall response times faster in that condition.

Other aspects of Reder (1982) also supported the notion that subjects became more inclined with delay to adopt the plausibility strategy first in both the plausibility task and the recognition task. As with Reder (1979), the plausibility of the test questions was also varied. The effect of plausibility, (i.e., the difference in response times between the highly and moderately plausible state-