

BRIEF SUMMARY

Qin, X. A., Koutstaal, W., & Engel, S. A. (2014). The hard-won benefits of familiarity in visual search: Naturally familiar brand logos are found faster. *Attention, Perception, and Psychophysics*, 76, 914–930.

Familiar items are found faster than unfamiliar ones in visual search tasks. This effect has important implications for cognitive theory, because it may reveal how mental representations of commonly encountered items are changed by experience to optimize performance. It remains unknown, however, whether everyday items with moderate levels of exposure would show benefits in visual search, and if so, what kind of experience would be required to produce them. Here, we tested whether familiar product logos were searched for faster than unfamiliar ones, and also familiarized subjects with previously unfamiliar logos. Subjects searched for preexperimentally familiar and unfamiliar logos, half of which were familiarized in the laboratory, amongst other, unfamiliar distractor logos. In three experiments, we used an *N*-back-like familiarization task, and in four others we used a task that asked detailed questions about the perceptual aspects of the logos. The number of familiarization exposures ranged from 30 to 84 per logo across experiments, with two experiments involving across-day familiarization. Preexperimentally familiar target logos were searched for faster than were unfamiliar, nonfamiliarized logos, by 8% on average. This difference was reliable in all seven experiments. However, familiarization had little or no effect on search speeds; its average effect was to improve search times by 0.7%, and its effect was significant in only one of the seven experiments. If priming, mere exposure, episodic memory, or relatively modest familiarity were responsible for familiarity's effects on search, then performance should have improved following familiarization. Our results suggest that the search-related advantage of familiar logos does not develop easily or rapidly.

KEYWORDS: visual search, familiarity, brand logos, semantic representations, perceptual learning, practice effects
