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A Study of Age-of-Acquisition Ratings in Adults

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Certain word attributes have been demonstrated to be important determinants of speed of processing in lexical tasks (such as picture naming, recognition tasks). Traditional accounts of lexical tasks using words and pictures have held that the most important among these word attributes is word frequency. However, there are a number of studies that indicate that, in some lexical tasks, apparent frequency effects may be wholly or partly accounted for by word age-of-acquisition (AoA), or word-learning age (Carroll & White, 1973a; Morrison et al., 1995).

In the literature, the methods used to obtain AoA data can be broadly grouped into two. The first method is objective and relies on the data collected directly from vocabulary tests and parental reports of children's abilities (Walley & Metsala, 1992). The second method is subjective and involves researchers obtaining age-of-acquisition ratings from adults. This second method allows for easier data collection and has been used in several studies (Carroll & White, 1973a, 1973b; Morrison et al., 1997; Snodgrass et al., 1996). Such studies have suggested that adult ratings of word acquisition age are a reliable tool to measure real word learning age and are also a better predictor (as compared to frequency and familiarity ratings) of subjects' performance on certain lexical tasks such as picture naming and recognition. Until recently, most studies have collected these adult AoA ratings using off-line techniques and using a relatively small number of stimuli (words and/or pictures).

The present study is an on-line experiment where we examined the AoA phenomenon in 50 normal, monolingual adults using a larger set of stimuli (520 words and/or pictures). The basic task, adapted from Carroll and White (1973b), involves subjects rating each item presented on a computer screen, on a 9-point age scale (2, 3, 4, 5, 6, 7-8, 9-10, 11-12, 13+ years) marked on the keyboard. The subjects' rating responses and time taken to make these decisions are recorded. Results are discussed with reference to previous AoA studies and developmental norms. These results confirm that AoA ratings are good predictors of real word-learning age, and may be better predictors of naming latencies when compared to existing frequency norms and familiarity ratings. These results also raise some interesting theoretical issues regarding what these AoA adult rating measures tap into and its relevance to lexical access. Researchers have not been able to truly understand why the adult ratings are an important variable. However, many have tried to explain the relative advantage of AoA ratings over other word attributes such as frequency and familiarity.

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