Hemispheric Contributions to Conceptual and Semantic Priming

N. F. Dronkers,\*,† K. Baynes,\*,† B. B. Redfern,† and A. Henik‡ \*VA Northern California Health Care System; †Center for Neuroscience; ‡Ben Gurion University, Israel

In the 1960's Paivio suggested that there was a dual coding system for words which enhanced the processing of concrete words. He based this conclusion on a series of studies demonstrating that the mnemonic properties of abstract and concrete words were different (Paivio and Yarney, 1966; Paivio and Yuille, 1969). Because visualspatial processing is generally associated with the right hemisphere and language processing with the left hemisphere, it might be expected that highly imageable items like concrete words would engage right hemisphere processing, whereas abstract words would be preferentially processed by the left hemisphere. However, there is evidence of image generation in the left hemisphere (Kosslyn et al., 1985). The degree and manner in which the processes that support imagery and those that support word processing are independent and lateralized remains unclear.