

Preserved Semantic Memory Structure in Alzheimer's Disease

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I. Semantic Memory as a Unifying Concept

Many fundamentally unresolved issues exist in the literature concerning the memory problems in Alzheimer's disease (AD) and how these problems relate to other cognitive domains that are impaired in these patients. Although pervasive deficits in the learning of new information are central to the disorder, studies contrasting the performance of normal elderly controls and AD patients have demonstrated repeatedly the relatively poor performance of AD patients in tasks that require access to previously acquired information, for example, confrontation naming, word-list generation (i.e., verbal fluency), and verbal abstraction [See Nebes (1989) for a review.] Since these deficits are disproportionately more severe and debilitating than those typically seen in normal aging, many researchers conjecture that the impairment in AD is not simply a more advanced or dramatic form of normal cognitive decline but is caused by a qualitatively distinct breakdown of cognition that is specific to the AD syndrome. In the center of this controversy is the issue of the integrity of the semantic memory system, a system that may serve as a potential unifying point to account for the diversity of symptoms observed.

Tulving (1983, 1984) suggested that memory is not a unified cognitive function but is composed of several separate subsystems that can be differentiated according to the type and organization of the information represented. Episodic memory is a context-bound autobiographical store of events that comprise an individual's unique experience. The records contained in episodic memory are encoded and stored in relation to a specific temporal-spatial context. In contrast, semantic memory is a relatively context-free compilation of world knowledge. Included in semantic memory are facts that we know, for example, words and their meanings, rules governing their relations, how to use and manipulate them,