Abstract

There are a lot of previous studies, which examined semantic memory impairment in patients with Alzheimer’s disease and semantic dementia using lexical decision priming. Since such investigations do not exist for patients suffering from progressive non-fluent aphasia (PNFA), the present study wants to examine the degree of semantic memory deficit in PNFA patients. Therefore semantic priming effects were analysed in two PNFA patients and seven healthy controls. Thus a lexical decision task was evolved. The task consisted of word pairs with coordinate (window-door) or attribute (zebra-stripe) relationships, word pairs with no relationship at all (key-uncle) and word-nonword pairs (sun-blom). The subjects had to decide if the second word was a real word or a nonword. As expected, the healthy controls showed shorter response times within the coordinate and attribute conditions in contrast to the unrelated word pairs. They showed significant priming effects within the coordinate and smaller, non significant priming effects within the attribute condition. The two PNFA patients did not show any significant priming effect within the coordinate and attribute conditions. Their response times were if at all only a little faster than within the unrelated condition. One of them even showed slower response times within the attribute condition in contrast to the unrelated condition. This may be a hint for a slowly progressive semantic deterioration in PNFA patients, starting with specific attribute information. Finally the results of the study are critically discussed, regarding possible influences on the results, such as cognitive slowing, attentional mechanisms, choice of stimuli and size of group.