

S15.3 – Managing ambiguity in aging: a study of activation/selection and selection/interference as differential processes of semantic memory

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Selecting a meaning among different sources of ambiguity relies on distinct selection processes; an activation/selection (observed using Homonym-Dominant (HD; e.g., bank-money) or -Subordinate (HS; e.g., bank-river) pairs); and a selection/interference (observed in tasks requiring the voluntary association of words presented among interfering foils). We investigate the hypothesis that aging would affect selection/interference but not activation/selection through a paradigm combining two tasks (automatic and voluntary) using the same set of homonyms. Fifty healthy older participants performed: (1) a primed lexical decision task (PLD, automatic) including 3 relations of interest: HD, HS, or non-related (NR); (2) a task of (voluntary) association between 2 words (either on 'global meaning' (HD or HS pairs) or on a 'common feature' (color or size)) in the presence/absence of interfering foils. In the PLD we observe a priming effect (HD/NR) and a selection effect (HS/HR). In the association task, in the absence of interfering foils, only the number of errors varied according to the type of association to be made (feature<HD<HS) confirming an effect on activation/selection. Interfering foils impacted performance across all association conditions, showing a general difficulty in using selection/interference. Our results confirm the dissociation between a preserved activation/selection in aging and an affected selection/interference. Voluntary dealing with the ambiguity of a homonym would therefore require an executive implication that is more sensitive to aging.