A single case study of Mass and Count noun processing in aphasia

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This study investigates the nature of specific impairment patterns related to mass nouns (e.g., ‘rice’) and count nouns (e.g., ‘potato’) in people with aphasia, in order to inform theories about their representation at the lexical-syntactic level of the language system.

RP, an Australian-English speaker with chronic aphasia, was tested with a set of word and picture stimuli consisting of singular count, plural count and mass nouns. In order to identify the functional locus of impairments relating to mass and count noun processing, the same stimuli were presented in different modalities and used in a number of tasks which require different levels of processing: spoken and written picture naming of bare nouns, oral picture naming with a mass/count congruent determiner cue (e.g., ‘a’, ‘some’), spoken picture naming using a noun phrase, auditory and written grammatical judgment task, reading and repetition of nouns and noun phrases.

RP showed no significant difference between mass and count nouns in reading and repetition of bare nouns and mass/count specific noun phrases; cued and uncued picture naming with bare nouns, grammatical judgment of countability specific noun phrases. However, testing of spoken picture naming with a mass/count specific noun phrase (some rice, a potato) revealed that RP showed particular problems in naming mass noun phrases. This was found to be due to difficulty producing the combination of the correct mass noun determiners and target nouns.

In this presentation, we will report the full results of testing and discuss their implications for theories of speech production and comprehension.