Computational modelling of the effects of aging on syntactic processing in Spanish: A study using neural networks Modelamiento computacional de los efectos del envejecimiento sobre el procesamiento sintáctico en español: Un estudio mediante redes neuronal

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The focus of this article is the application of artificial neural networks to the quantification of the effects of aging on syntactic processing of complex sentences in Spanish. The network models studied were able to establish first that there are two distinct groups of readers: older adults and younger adults, whose reading performance is characterized distinctively due to the progressive reduction in working memory and in turn its effects on reading comprehension tasks. A second important result is that it was possible to "age" a network considered "young", obtaining differences in a single neuron in a hidden layer, with similar yields. A third result shows the effect of gender on reading performance.