Context dependency and systematicity in connectionism

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Abstract: I argue that connectionist models are well prepared to deal with the problem of context dependency. I understand the problem of context dependency in the case of language processing and in relation to the problem of systematicity as follows: if the meaning of a word in a sentence is context dependent, then the systematicity of our cognitive capacities could not be explained, since the same word in a new sentence (though being the same) would not have the same meaning as in the initial sentence, and then, concerning systematicity, our ability to produce or understand a new sentence would not depend on our ability to produce or understand the initial sentence. A correctly trained network should be able to distinguish them as different meanings precisely because the meaning is always differently determined in the network. I will discuss to which extent systematicity would be a problem for connectionism.