

Sentences in natural languages, i.e., languages such as English or Polish, are not just sequences of words, but contain various larger parts – constructions. A construction that is both very frequent and very controversial among linguists is coordination. There are 3 examples of coordination in the first two sentences of this text: one is *English or Polish*, another is *are not just sequences of words, but contain various larger parts – constructions*, and the third is *both very frequent and very controversial among linguists*. The main constituents of such constructions are called conjuncts (e.g., *very frequent* is the first conjunct and *very controversial among linguists* is the second conjunct in the last coordination), and the words that join them are called conjunctions (e.g., *or*, *but* and *and*).

Among the most frequent constructions of natural languages, coordination may well be the most controversial. There are many theories about the internal structure of such constructions and even about the basic empirical facts: which coordinations are grammatical or not, and why. For example, in the sentence *Trump is a Republican and proud of it*, coordination is somewhat unusual as it joins different categories of constituents: a noun phrase *a Republican* and an adjective phrase *proud of it*. This is different from the three coordinations in the first sentences of this text, which join constituents of the same category – for example, the two adjective phrases *very frequent* and *very controversial among linguists*. Yet this “unlike category coordination” is fine because each constituent alone can be a continuation of *Trump is...*: both *Trump is a Republican* and *Trump is proud of it* are grammatical.

However, sometimes two phrases can be coordinated even though only one of these seems grammatical in a given position. For example, the sentence *You can depend on my assistant and that he will be on time* is accepted as grammatical by many speakers of English even though only *You can depend on my assistant* is grammatical, while *You can depend on that he will be on time* is not. This is a very strange phenomenon and grand linguistic theories have been built on such examples.

The aim of this project is to show that such linguistic theories have very shaky foundations. The project will attempt to demonstrate that the grammaticality of sentences such as *You can depend on my assistant and that he will be on time* is only apparent: they are accepted by native speakers because of how language is processed in the brain, even though they are not grammatical. The reason seems to be that people have in general very short memory of what specific words were used even a moment ago: they remember the meaning of what was said, but not necessarily what exact words and constructions were used to express that. So when people hear or read the above sentence, and they reach the part *that he will be on time*, they might not remember what exact words were used at the beginning of the sentence. Maybe it was *You can be sure*, in which case *that he will be on time* is a perfectly grammatical continuation? This creates an illusion of grammaticality, even though the sentence is not grammatical.

In order to demonstrate this effect, we will perform a number of psycholinguistic experiments, in which we ask participants to judge how acceptable such sentences are according to their grammars, depending on the length of the part of the sentence between the verb and the ungrammatical part. For example, we predict that people will judge the sentence *You can depend on it and that he will be on time* (where only two syllables – *it* | *and* – intervene between the verb and the ungrammatical part, so the exact verb is likely to be remembered) as less acceptable than *You can depend on my assistant's very good manners and that he will be on time* (where 10 syllables – *my* | *as*|*sis*|*tant*'s | *ve*|*ry* | *good* | *man*|*ners* | *and* – intervene, so the exact verb may be forgotten). A number of such experiments will be performed on the basis of data from English and Polish to make sure that the results are robust and replicable.

The results of such experiments are potentially very important: if it can be demonstrated that such a processing effect exists, it will be possible to reject some popular theories of how coordination works in natural languages and, by extension, how natural languages work in general. On the other hand, if it turns out that sentences such as *You can depend on it and that he will be on time* are fully acceptable, this will mean that theories built on such data are on the right track after all, and that other theories of coordination are probably wrong. In any case, the results of this project will make it possible to eliminate some of the theories of coordination and, hence, make one of the most common phenomena of natural languages a little better understood.