**Well Yes, But Actually No: Illusions in English Grammar, and Why Things Might Sound Correct When They Aren’t**

*“The key to the cabinets are on the table.”*

*“The athletes who the coach praise so highly are likely to win.”*

*“The sheer weight of his many commitments make it difficult for him to cope.”*

If you’re a native speaker of English, there might be a high chance that you think the above sentences are perfectly grammatical. Unfortunately, they aren’t.

But why? Why do these wrong sentences seem, and almost *feel*, correct? A 2009 study by Wagers, Lau, and Phillips might pose the answer. But before that, we need to provide some background knowledge, both about natural language and how it might be processed in the brain.

As we have seen, language, to a certain extent, follows a set of rules. We call these rules *grammar*. As we start to learn and become more competent in a language, we start to internalize those rules and patterns, to the point in which they can be used without conscious effort. This is why some might say that the rules of human language are tacit or implicit. This has additional implications on how we read and understand text, as well: if a sentence follows (or appears to follow) these rules, we will have an easier time reading it and understanding what it means. Consequently, we would need to struggle to extract meaning from more poorly-formed sentences, and take a longer time to read them.

Another point that we need to note about language is that it is compositional. That means that constructs in language are made out of smaller parts, which we can call *constituents*. We can see this phenomenon at occur at different levels. For example, a sentence such as *the keys are on the table* is comprised of phrases such as *the keys* and *are on the table*. These phrase can be further broken down into their constituent words and sub-phrases, such as *keys* and *on the table*. This in turn clues us into the hierarchical nature of language, where we can get the sense that individual words, being finer components of the sentence, are lower down, while the sentence made of these words must be at higher in the hierarchy.

Agreement Attraction

To explain the mistake above is simple enough: in standard English, there exists a rule known as *subject-verb agreement*, which dictates what kind of verbs can be used in a sentence. More specifically, the verb must have a form that “agrees” with the main noun (the subject) in the sentence. If you are confused about this, know that it is the same rule we obey when we say that *dogs bark* while *a cat meows*.

The illusion above, which caused us to wrongly think the ungrammatical sentences were correct, is called *agreement attraction*. It rises from our confusion over what noun the verb should agree with. There is only one key, so we should say that it *is* on the table, despite the plural cabinets; only one coach, so we can say that he *praises* the multiple athletes who are likely going to win; and only a singular weight that *makes* it hard for him to cope, despite it being composed of multiple commitments.

By examining how long it takes to read each word in carefully crafted sets of sentences, the researchers were able to pinpoint how far the effect of agreement attraction spreads within a sentence, and what factors affected it. It was found that the effect’s strength was the same regardless of how far the attractor was from the verb. In fact, the mismatch did not even seem obvious even in the cases where the correct noun was right next to the verb!

Another curious finding was that attraction only happens if the sentence is ungrammatical: that is, we are inclined to think that ungrammatical sentences might be correct, but the attractor doesn’t seem to work if the sentence is already grammatical.

These results suggest that when we consider if a sentence is grammatical or not, the features of the verb serves as a cue which we use to access information about the subject, which we then use to check if the sentence’s grammatical correctness. Wagers et al. liken this process to how one uses keywords in an internet search engine to find relevant websites.

This *cue-based retrieval model* thus explains the asymmetry in the effect between grammatical and ungrammatical sentences. In a grammatical sentence, the relevant noun already matches the requirement of the verb, thus the checking procedure returns an unambiguous response of correctness. However, when the sentence is ungrammatical, a noun (the attractor) that only partially meets the requirements of the verb may fool the checking process into wrongly accepting the sentence.

Such a model also explains why attraction may occur even if the attractor is far away from the verb. In cue-based retrieval, both nouns are simultaneously active in working memory despite the fact that one may be introduced after the other. This means that they may be confused or interfere with each other.

So, what does this tell us about ourselves and how we might comprehend language? Well, it isn’t simply the case that we just somehow fail to pay attention to verbal agreement when we speak. Rather, it demonstrates how language production and comprehension is a complex process, and hints at the workings of other mental phenomena such as memory and mental organization.

(910 words)

**References**

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Wagers, M. W., Lau, E. F., & Phillips, C. (2009). Agreement attraction in comprehension: Representations and processes. *Journal of Memory and Language*, *61*(2), 206-237.

*The Logic of Language* lecture notes:

* Week 1, Introduction
* Week 5, Languages as Grammars
* Week 6, Reflexes of Structure