





Clifton & Frazier, 1989). This propensity interacts with an articulatory factor: contraction is most natural when the involved words combine with each other without delay. All goes well in (6a), where the speaker can move seamlessly from *want* to *to*, producing a contracted pronunciation.

(7) Tell me whether they **want to** stay at home.

↓  
*wanna*

However, the situation is very different in (6b), where the need to associate *who* with *want* as soon as the latter is encountered (the Active Filler Hypothesis) disrupts the flow of the sentence at a crucial point—right between *want* and *to*.

(8) Tell me **who** they **want to** stay there.

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The resulting delay, often accompanied by prosodic reflexes such as lengthening of *want* (Warren, Speer & Schafer, 2003), compromises the naturalness of contraction.

Because constraints on working memory are not categorical, they leave room for variation, both across individuals and across languages. Crucially, though, this variation manifests unidirectional asymmetries that confirm the role of working memory. About 3% of the world's verb-final languages have prepositions, but the vast majority employ the more economical postposition option. Not all children learning English have trouble with the interpretation of pronouns; but if there is a problem, it invariably involves plain pronouns rather than the more processing-friendly reflexives. A small number of English speakers permit *want to* contraction without restriction (Pullum, 1997); but anyone who allows *wanna* in the more difficult (8) also permits it in (7), where the transition from *want* to *to* is seamless. In all three of these cases, we see unequivocal attempts to accommodate the demands of working memory: the less taxing option is favored, typologically and developmentally.

These and many comparable phenomena constitute the fabric of what is commonly called a language's 'grammar.' In fact, though, what we think of as a grammar is probably more accurately seen as a system of processing routines, whose precise character reflects the ways in which languages deal with the limitations imposed by working memory, with consequences for typology and development that we are only beginning to understand.

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