Constructions and Compression

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The systematic compression of vital relations is a striking property of human thought and language. It was noticed only recently in the course of investigating conceptual integration, but it is pervasive and appears in a variety of recurring patterns. For example, analogy is compressed to identity, and identity to uniqueness; cause-effect chains are compressed to shorter chains or to different vital relations, such as part-whole, or property; time and space are scaled down.

Many grammatical constructions are cases of "borrowed" compression, a feature they share with metaphor, and other integrations. The borrowed compression is typically a basic grammatical construction (e.g. transitive, or ditransitive), and it leads to a more general construction expressing a more elaborate meaning, as for example in the case of caused motion or so-called causative clause union.

Other grammatical constructions are prompts for performing integrations and compressions. The conditional ***if*** *P,* (***then***) *Q* is a space-blender of this kind. As noted by analysts, there is a variety of compressions that are expressible through this single grammatical pattern. For example, *P* can originate in a hypothetical input, with *Q* emergent in a blended space. Or *Q* can originate in an existing input, leading to emergent structure not explicitly mentioned in the grammatical expression. Or *P* can originate in an existing input. Or *P* can be a mapping instruction, leading to an emergent *Q*. Or *P* and *Q* can both be mapping instructions, with resulting emergent structure not explicitly expressed by the linguistic form.

The grammar itself does not indicate the type of integration to be performed. Some creativity on the part of the interpreter is required, and appropriate epistemic stances will ensue. I will illustrate this with a variety of examples from speech act and epistemic conditionals.

Finally, although constructions traditionally belong to the realm of grammar, it is tempting to look at constructions and corresponding frames beyond natural language, as in the case of mathematics. Emergent notions of number, for instance, can be viewed as borrowing existing compressions, and creating novel ones. The same may be true of technology, as in the case of human-computer interfaces, airplane cockpit displays, or automatic tellers, which use familiar forms to perform new functions.