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Mental spaces: Exactly when do we need them?

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Since the first publication of Fauconnier’s *Mental Spaces* in 1985 there has been a growing field of applications of the central concept that is indicated in the title. A recent elaboration of the mental spaces approach is the exploration of processes of conceptual integration, in which the simultaneous invocation of two mental spaces brings about a third. Blending spaces gives fascinating results, because previously disparate properties can be brought to co-exist in the same mental space with properties that were found in neither of the original spaces. An example is *land yacht* (cf., e.g., Fauconnier 1998: 271), where the “sailing space” and the “driving space” are integrated to produce a mental space where the driver of a conspicuous car is cast in the role of yacht owner.

This example simultaneously illustrates how the concept can be brought to bear on grammatical phenomena such as compounding, since the two spaces are blended as part of the process of forming the new compound noun. More generally, Eve Sweetser (1999) has demonstrated how mental-space blending can be brought to bear on the issue of compositionality. Because of mental spaces, the usual objections against compositionality in cases such as *fake gun* (that it cannot simultaneously be a gun and a fake) can be handled: the object is a gun in one mental space but a fake in another. The theory is attractive, since unless it is a gun in one space, it cannot be called a fake in another; a pencil is not a gun, but that does not qualify it to be called a fake gun. In a similar vein, Fauconnier and Turner (cf., eg., 2002: 370) have argued that blending is a central process of grammar. They illustrate the claim with the “caused motion” construction (cf. Goldberg 1995), demonstrating that the insertion of a verb like *sneeze* (which does not in itself designate caused motion) can be understood as working by virtue of a blending process. Thus, when we interpret *He sneezed the napkin off the table*, we integrate a space containing an unintegrated sequence of events (including the event of sneezing) with a space containing the integrated caused-motion schema associated with the construction as exemplified in prototypical cases like *Jack threw the ball*.
into the basket. From this point of view it seems fruitful to see the blending of mental spaces as being involved quite generally in the construction and processing of complex expressions.

However, there is one caveat that needs to be addressed in that context. As emphasized in relation to the blending approach by Gibbs (2000), an attractive posthoc interpretation is not a sufficiently robust foundation for a theory of actual mental processing (whether productive or receptive). Gibbs suggests a number of ways in which one can make blending psychologically respectable, and I would like to stress that I think one should take a basically generous attitude to intuition-based hypotheses and avoid all throwbacks to the “nothing buttery” mode of argument (cf. Tomasello 1998: vii). Such a fundamental generosity, however, does not exempt one from a form of adherence to a basic principle of conservatism that ultimately goes back to Ockham, i.e., that complexities in theoretical assumptions must be motivated by complexities in the data. If there is a theory that can account for the same data with less heavy theoretical artillery, that theory should be preferred until further notice.

In that respect there is a potential problem with the trajectory by which blended mental spaces have moved into the central processes of grammar. The star examples (cf. also Bache 2002), such as the story of the monk who “meets himself” at a particular point on the mountain and the philosopher having a discussion with Kant, are clear cases in which we have two distinct spaces that are integrated—with interesting results that would be impossible in either of the “parent spaces”. But by generalizing from such complex cases to more mundane examples, we are reversing the directionality recommended by the conservative approach: we are using the equipment that was devised for complex cases to account also for the simpler ones, instead of looking for simpler accounts until additional complexities in the data force us to upgrade our theory.

An argument for allowing this would be to say that if we know from elsewhere that human speakers have this capability, why not assume that it comes for free in the simpler cases as well (Sweetser, personal communication 1998)? Parsimony in itself should not be understood as inherently superior when there is reason to suppose that the facts support a more complex explanation than one might theoretically devise; the rule-list fallacy (cf. Langacker 1987: 29) is an example of a case where it is implausible to use parsimony as an argument in the face of evidence that speakers also store regular “chunks” as items. Coulson and Oakley (2000: 194) defend the path from complex to ordinary situations in blending theory by invoking an analogy with gestalt psychology where the special and complex phenomenon of optical illusions shows something general about the way we see things. However, there must be something about the simple cases
that warrant their being treated on a par with the complex cases in order for the generalization to be plausible.

In the case of mental spaces, I would like to argue that there are good reasons to maintain the conservative view, and invoke mental-space integration only in the more complex cases. These reasons have to do with what exactly it takes to operate with mental spaces, i.e., to understand entities and events as belonging not in one objective world, but simultaneously in different yet overlapping mental worlds. An empirical basis for understanding this can be found in the experiments that have explored children’s ability to distinguish between different pictures of reality, cf., e.g., Gopnik (1993). One of the experiments involves an object that appears to be one thing but is actually another, such as a green cat covered by a red filter that makes it look black. After extensive pretraining to ensure they understand the questions, children are asked what the object looks like and what it really is. Three-year-olds give the same answer to both questions: the cat looks black and really is black (or green in both cases; the choice of reality or appearance varies with the particular object). It is only after the age of four that children are reliably capable of holding two different pictures in their minds at the same time.

In this context the point is that the ability to blend mental spaces must presuppose the ability to entertain two pictures of the same thing simultaneously; otherwise the issue of integrating them would not arise. At age three, blending therefore does not seem to be an option. Children, on the other hand, know most of their syntax by that time (cf. Bates et al. 1992: 84). Therefore, I think that space building is not essentially involved in the capacity to build composite meanings out of simpler content elements.

Since keeping apart two mental spaces is a late achievement, it is natural to assume that it is also demanding for those who are capable of doing it, rather than something that comes for free once you know how to do it. The key to understanding the role of mental spaces, therefore, is to see space building as something sophisticated that occasionally interferes with the ordinary default assumption we know as naive realism: that there is only one correct picture of the world, which corresponds to the way I see it. We are born as naive realists and even when (after the age of four) we become capable of rising above this state, we basically only do so when we have a specific reason for it.

If we look at language from this point of view, the question is: when do we have to invoke different, simultaneous pictures, in order to understand what is going on? Among the clear-cut examples are epistemically complex combinations (including conditionals, cf. also Fauconnier and Sweetser 1996). Counterfactuals clearly cannot be handled if we can only see the world in one way. The fake gun example also survives, because there is no
way to compress the concept into a single-perspective view of the world if we take the strict compositional path (although the phrase may of course be learnt “lexically” as denoting a toy of a particular kind).

Space building, on the other hand, should not be invoked as a necessary part of the picture in understanding spatial expressions like in France or (pace Fauconnier 1998: 256) temporal expressions like in 1968. Mental worlds, like the real world, can be assumed to have spatial and temporal dimensions inside them. Compiling birth rates for the past fifty years, for instance, there is no need to set up a new mental space for each figure we take down, such as the birth rate that obtained in 1968: the whole statistical table can be accommodated in one mental model and within one space. The situation is similar if we compare the figures for different countries. Only if we start playing around with assumptions that draw on alternative assumptions about the same year or country do we have to keep track of more than one mental space simultaneously.

For the same reason, compositional understanding of NPs does not generally require mental-space building. The core of compositionality is not in the mental models or spaces that we construct as a result of interpretation—rather it is in the recipe for interpretation that we follow (cf. Harder 1996: 214) in compiling the meaning, involving a particular compositional path in Langacker’s terms. The order of modifiers typically specifies the compilation path we have to follow, so that in Japanese fake paintings we combine fake with painting before we make the product Japanese—while in fake Japanese paintings we first make the paintings Japanese and then turn them into fakes. The difference in the process means that we get different results in the two cases, and that the properties of the paintings are different in spite of the fact that the words (in isolation) and the grammatical structures (in isolation) are the same. There may be a problem if we view compositionality from the point of view of truth conditions; but the results are predictable from the parts plus their manner of composition, so there is no compositionality problem from a linguistic point of view. The complexity lies in constructing an interpretation that will accommodate the specifications, some of which may not readily merge, in the right way.

The main factor that prompts space building, according to this view, is thus potential contradiction, as in the fake gun case. When you interpret a less sophisticated case like black gun, you can add the property black without interfering with the “gunhood” of the gun, so you can stay within the same space—which, as a default case, I suggest you do. The situation is similar with land animals as compared with land yacht. This, of course, does not prevent individual listeners from building more spaces than they (strictly speaking) need; but the process should not be understood
as built into the way (content-)syntactic combination works in cueing understanding.

As a consequence of this view, we need to ask what the relationship is between blending and mental spaces. The foregoing account does not rule out a blending process based simply on semantic specifications, rather than on distinct mental spaces. Fauconnier and Turner’s account of *He sneezed the napkin off the table* would not be essentially altered in we removed the space boundaries.

In Langacker’s terms, compositional relations involve “correspondences”; you cannot work out the meaning of, for example, combinations of nouns and verbs without figuring out how the semantic specifications associated with the elaboration site of the verb can be brought to cohere with the semantic specifications associated with the noun (Langacker 1991: 37). Blending as associated with semantic composition also frequently involves creativity that goes beyond that of putting one lego block on top of another, as in the case of *elephant ribbon*, understood to mean the ribbon with which the zoo manager intends to wrap a present for the elephant keeper (Langacker 1987: 282n). Here, too, I would claim that mental space differentiation is not necessary, as long as all the required operations can be performed in one coherent space.

**References**

Bache, Carl  
2002 Grammar, blending and conceptual disintegration. Unpublished manuscript, University of Odense  

Bates, Elizabeth, Donna Thal, and Jeri S. Janowsky  

Coulson, Seana and Todd Oakley  

Fauconnier, Gilles  


Fauconnier, Gilles and Eve Sweetser  

Fauconnier, Gilles and Mark Turner  
Gibbs, Raymond

Goldberg, Adele

Gopnik, Alison

Harder, Peter

Langacker, Ronald W.

Sweetser, Eve

Tomasello, Michael (ed.)