

Persistence of the Base

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Fauconnier, throughout his work on mental space theory, emphasized the power of base spaces and the dependence of mental space networks on base frames. In *Mappings in Thought and Language*, Fauconnier (1997) discusses the example where Achilles sees a tortoise and chases it but, because the tortoise moves very fast, Achilles reassesses the situation and considers the possibility of the tortoise being, in fact, a hare. In his analysis, represented in the diagram in Figure 1, Fauconnier highlights the roles of space builders, such as maybe and if, and demonstrates the cross-space mappings needed for interpreting the short story on the fly.

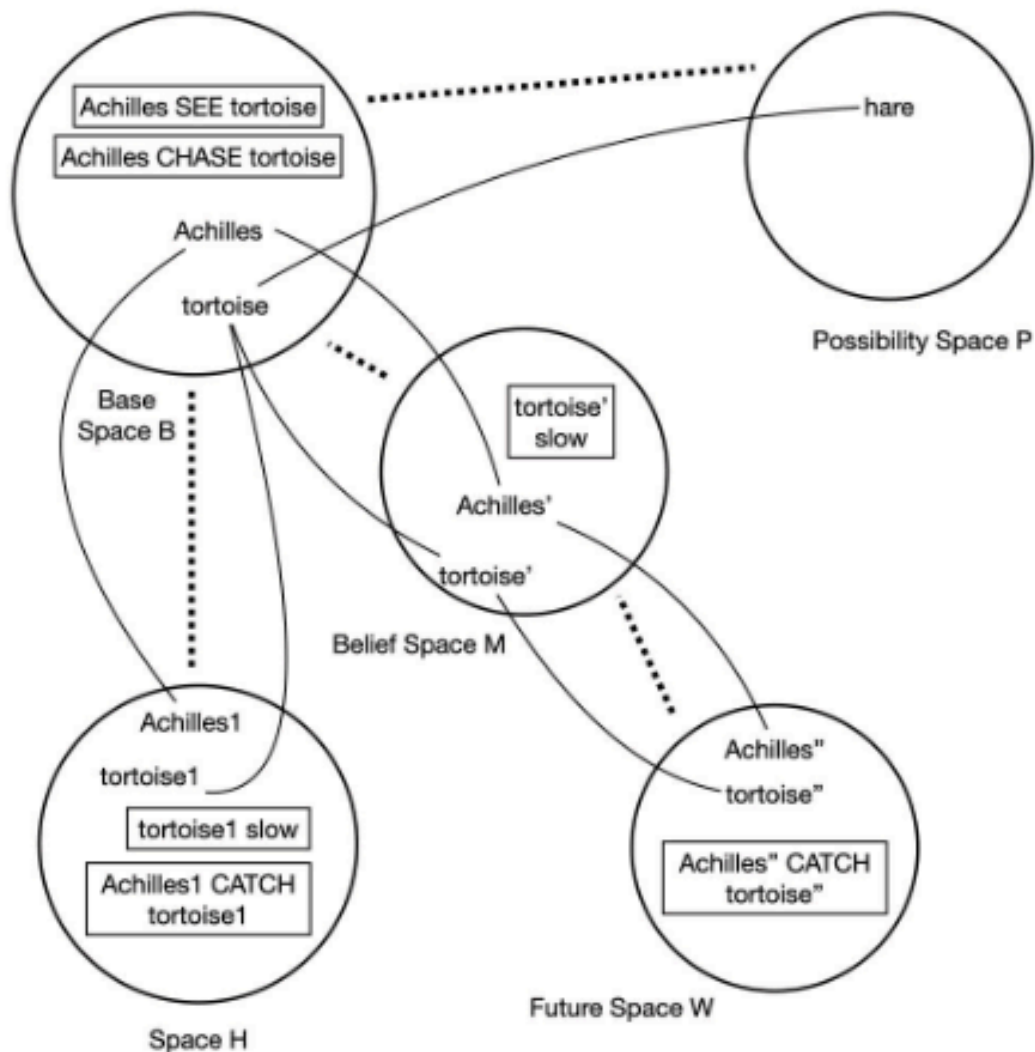


Fig. 1: Fauconnier's (1997) analysis of the Achilles and the tortoise chasing example

Adopting a distinct but related perspective, Fillmore, throughout his work on frame semantics, sustained

the claim that frames structure our experience in the world, being defined as systems of interrelated concepts (Fillmore, 1982), which may take alternating perspectives (Fillmore, 1985) and be organized in a network (Fillmore et al., 2003) In the Achilles and the tortoise example, the Cotheme frame (shown in Figure 2) is used to structure not only the Base space, but also the Belief and Future spaces.

Cotheme

Definition	
This frame contains words that necessarily indicate the motion of two distinct objects. The Theme is typically animate and is expressed the same way a Self-mover is expressed in the Self-motion frame. The Cotheme may or may not be animate. The Source , Path , Goal , and the other frame elements common to motion words also regularly occur with the words in this frame.	
Example(s)	
Core Frame Elements	
FE Core:	
Area [Area] semantic_type: @location	It marks expressions which describe a general area in which the motion of Theme and Cotheme takes place when the motion is understood to be irregular and not to consist of a single linear path. Locative setting adjuncts of motion expressions may also be assigned this frame element.
Cotheme [Cotheme] semantic_type: @physical_object	It is the second moving object.
Direction [Direction] excludes: Area	The direction in which the Theme and Cotheme move.
Goal [Goal] excludes: Area semantic_type: @goal	Any expression which tells where the Cotheme ends up as a result of the motion expresses the frame element Goal . Note that if the Cotheme is animate, the Theme need not also end up in the same place. Some particles imply the existence of a Goal which is understood in the context of utterance.
Path [Path] excludes: Area semantic_type: @path	It marks phrases that describe the Theme and Cotheme's trajectory of motion and which are neither expressions of the Source nor the Goal of motion. The notion Path also includes directional expressions.
Road [Road] excludes: Cotheme	Phrases that denote a physical path on which the motion of Theme and Cotheme takes place are marked Road .
Source [Source] excludes: Area semantic_type: @source	It marks any expression which implies a definite starting-point of the motion of the Cotheme . In prepositional phrases, the object expresses the starting point of motion. With particles, the starting point of motion is understood from context.
Theme [Theme] semantic_type: @physical_object	This is the entity, frequently a living being, which moves in relation to the Cotheme .
FE Core set(s): {Source,Goal,Path,Direction}	

Fig. 2: The Cotheme frame in FrameNet

In this talk, we observe that even as spaces in a mental space network proliferate, and as their contents and connections are recast and rebuilt, base spaces and frames typically persist. Mental operations and communicative constructions needed for building such networks rely on and favor the persistence of the base. The base is especially central for imagining and understanding unreal worlds, such as counterfactual, future, or fictional scenarios. We demonstrate specific patterns of base frame persistence by analyzing scenario forecasting, i.e. the exercise of predicting or constructing scenarios about the future of humanity. These scenario forecasts first establish a base built on current shared knowledge; then, multimodal prompts guide us to extend that base in imagining yet-to-be-seen worlds, and to make inferences about how to deal with them and navigate within them. The persistence of the base is the central cognitive asset of imagining and communicating these elaborate futuristic mental space networks.

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