
Several studies on the expression of space have shown that language carves spatial entities into different categories. In French, most of these categories have been pinpointed by semantic and syntactic analyses of different markers of static linguistic space (see Borillo (1988, 1999), Aurnague (1991, 1996, 1998, 2001), Vieu (1991, 1997), Vandeloise (1988), Aurnague, Vieu & Borillo, (1997)). According to this existing classification, five basic categories of spatial entities can be distinguished in French: “space portions” (e.g. hole, window), “locations” (e.g. London, France), “objects” (e.g., table, chair, wall), “mixed entities” (e.g. house, building) and “substances” (e.g. water, sand).

The aim of this paper is to explore whether and how two spatial morphemes with extremely dynamic semantics, the prepositions \textit{par} (‘by’) and \textit{à travers} (‘through’), can contribute to the categorization of spatial entities in language and cognition. By analyzing their behavior in relation to nouns denoting different kinds of spatial entities, we discuss the validity and accuracy of the existing “static” ontology of spatial entities for “dynamic” space.

The following examples reflect some differences in the applicability of \textit{par} and \textit{à travers} to nouns denoting entities like a “motorway” and an “armchair”. Thus, the preposition \textit{par} can occur with the noun \textit{autoroute} (‘motorway’), as in (1a), but not with the noun \textit{fauteuil} (‘armchair’), as in (1b):

(1) a. Les troupes américaines ont atteint Bagdad par l'autoroute
    The forces American AUX reached-PP Baghdad by the motorway
    ‘The American forces reached Baghdad by the motorway.’

b. *La balle a atteint Max par le fauteuil.
    the bullet AUX hit-PP Max by the armchair
    ‘The bullet hit Max by the armchair.’

If we try to replace the preposition \textit{par} with the preposition \textit{à travers}, we get the opposite:

(2) a. *Les troupes américaines ont atteint Bagdad à travers l'autoroute.
    the forces American AUX reached-PP Baghdad through the motorway
    ‘The American forces reached Baghdad through the motorway.’

b. La balle a atteint Max à travers le fauteuil
    the bullet AUX hit-PP Max through the armchair
    ‘The bullet hit Max through the armchair.’

Unlike \textit{par}, the preposition \textit{à travers} can appear with the noun \textit{fauteuil} (‘armchair’; cf. (2b)) but not with the noun \textit{autoroute} (‘motorway’; cf. (2a)), which suggests that \textit{par} and \textit{à travers} are sensitive to the differences amongst various kinds of spatial entities. This also means that the semantics of these prepositions involves certain constraints on the nature of locating entities.

In this paper, we define these constraints and show that the analysis of dynamic markers of linguistic space can reveal several other interesting distinctions between spatial entities in language and cognition.