Geometry and function in spatial terms: Core and more

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Theories of the meanings of spatial terms often focus on geometric properties of objects and locations as the key to understanding meaning. For example, in English, "The cat is on the mat" might engage geometric properties characterizing the figure ('cat', a point) and the ground ('mat', a plane) as well as the geometric relationship between the two objects ('on', coincidence). However, substantial literature suggests that geometric properties are far from sufficient to capture the meanings of many spatial expressions, and that instead, functional, force-dynamic properties of objects (e.g. support, containment) may be crucial to the meanings of these expressions. I will argue that both approaches are necessary to understanding the variety of spatial terms that appear in language, and will illustrate this by suggesting several new 'divisions of labor' within the locative expressions of a language. These divisions of labor have many consequences, including the ease of acquisition of each type in first or second language acquisition, the extent and kind of cross-linguistic variation from each type, and possibly the neural substrate underlying the two types.