

## Force Dynamics: Continuous or Discrete?

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Force dynamics (Talmy 2000) is a basic cognitive category describing how entities interact with respect to force. It is fundamental to the conceptual structure of language, and apparently universal. However, the nature of force dynamic categories is poorly understood. In the literature on force dynamics, one can find descriptions of lexemes that are claimed to 'be force dynamic', and this certainly appears to be the case for *despite*, *block*, *resist*, *force*, *persuade*, and many other forms. However, much of the discussion makes it seem as if force dynamics were always discrete (an all-or-none property of a form), rather than continuous (i.e. that there is a gradation of strength with which a form may be associated with a force dynamic property).

The hypothesis tested here is that some force dynamic categories are applied in a continuous manner. Specifically, it will be argued here that English *through* has a strong affinity for the force dynamic configuration of resistance, but that it does not denote resistance. To show this, intuited data are first examined. It is shown that *go through* can mean something like *experience*, but with this meaning, it appears to be primarily used in describing experiences of a difficult nature, like *endure*. One can *go through a hassle, difficulties, pain, hardship, divorce, a depression, a hard time, or 'hell'*, but it's less clear what *going through an easy time, happiness, love, marriage, or 'heaven'* might mean. To *go through a lot* can mean to survive many difficult experiences, rather than experiencing many comfortable or pleasurable experiences, and *to go through a little*, if it can be said at all, suggests some smaller amount of difficulty, rather than any amount of ease. This is the case not just for *go through*, but for other V-P combinations with *through* as well, such as *get through (~the ordeal/ ?the fun)* and *make it through (~the day despite the pain/ difficulty/ ?ease)*. Therefore, based on these data, it appears that *through* is linked to resistance.

However, it is not the case that force dynamic meaning is 'present' in the meaning of *through*. Unlike lexemes such as *despite*, *block*, and *persuade*, *through* has many uses that do not appear to include force dynamic characterization. For instance, it is hard to imagine that resistance is specified in uses such as *She looked out through the window*. In fact, situations explicitly lacking resistance can be described using *through*, and it is even possible to express 'enabling' – the force dynamic configuration directly opposed to resistance – in sentences such as *I got the tickets through a friend* and *It is through the kindness of others that this was made possible*.

The crux of the argument depends on analysis of the behavior of *through* in two corpora (the BNC and the COCA), which is compared to that of its lexical competition *over* and *across*. The behavior of the three lexemes is described in environments including and lacking resistance, including proximity to 33 adjectives describing Paths that are easy or difficult to traverse, and presence within two larger constructions expressing resistance or difficulty of motion: the 'way' construction (e.g. *She fought her way to the top*) and the 'make it GOAL' construction (e.g. *They made it to the top*). Quantitative analysis, including collocation analysis (e.g. Stefanowitsch and Gries 2003, 2005) reveals that *through* (but not *across* or *over*) has a strong affinity for, but does not denote, resistance, supporting the claim that there is a gradation of strength with which a form may be associated with a force dynamic property.

### References

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