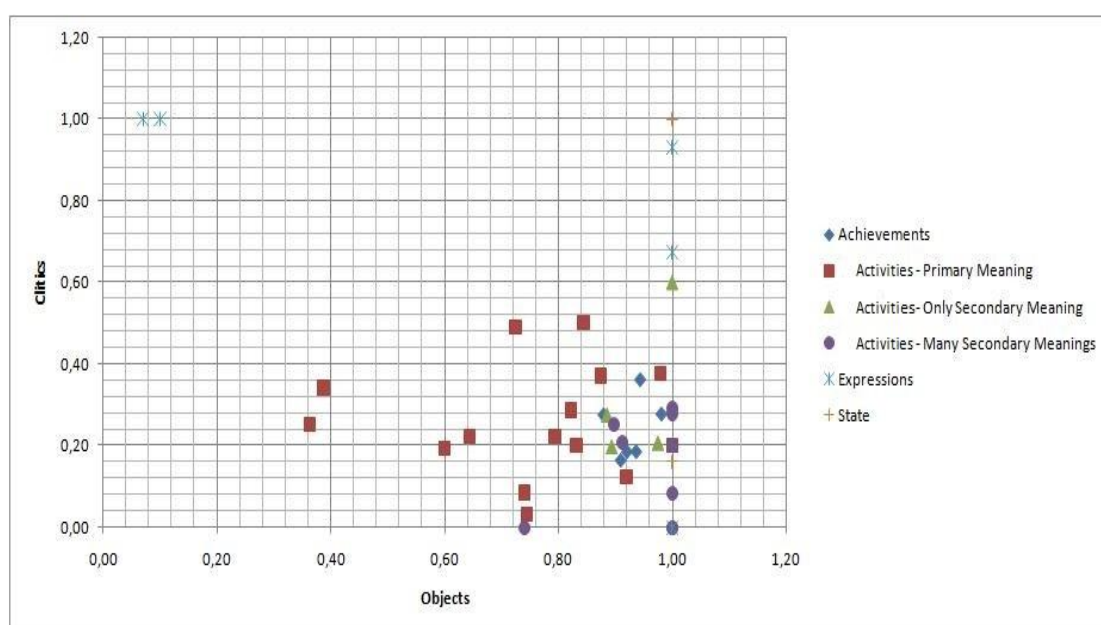


## Using object noun and clitic frequencies in the study of transitivity in Modern Greek

Why several transitive verbs tend to omit their syntactic object is a linguistic puzzle. Levin (2000) argues that “cause”-a non aspectual semantic property- renders objects obligatory while clearly aspectual properties, such as “activity” and “accomplishment”, do not. Resnik (1996) argues that verbs that strongly select their objects, such as *eat* and *drink*, tend to drop them as easily recoverable. Goldberg (2005) considers object omission as both lexically specified and induced by certain grammatical constructions.

We plotted transitivity of verbs against (i) ratio of transitive occurrences to occurrences of a verb and (ii) ratio of clitics to transitive occurrences. The intuition was that very “transitive” verbs would require a content noun phrase as an object, while less “transitive” ones would both tend to omit their object and admit clitics.

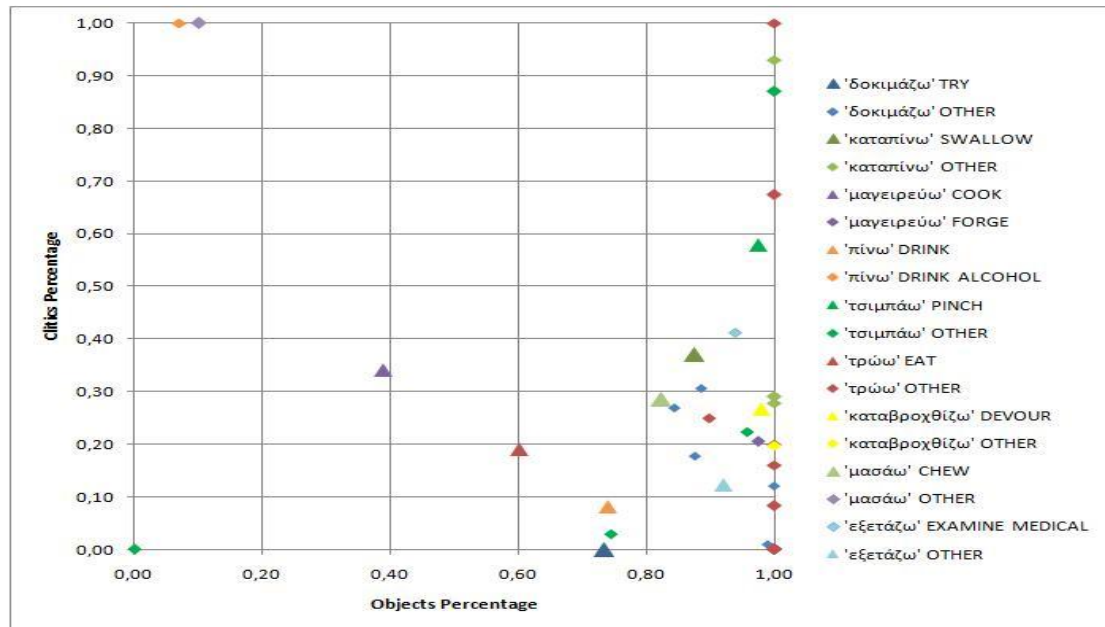


**Plot 1:** Transitivity and Clitics

We drew data from the Hellenic National Corpus <http://hnc.ilsp.gr/> (~50M words) that allows lemma searches and returns 2000 hits/lemma (maximum). We worked with verbs mainly from the thematic domains of medicine and ingestion and from the aspectual classes ‘achievement’ and ‘activity’. We identified senses and multiword expressions of each verb. As sense identification diagnostics we used synonymy, translation to English, French and German, zeugma, subcategorisation properties and participation to certain verb alternations. We plotted 54 senses drawing on 150 examples/sense (average), and:

- (a) Causative verbs (all of them achievements) clustered in an area of high transitivity and low-to-medium usage of clitics (P1)

- (b) Expressions and idiomatic usages of verbs took positions on the axis (totally transitive or intransitive, with a very high or a very low percentage of clitics-depending on their form) (P1)
- (c) Activities spread all over the chart (P1)
- (d) Different senses of the same lemma were positioned in some distance from each other on the plot (P2)



**Plot 2:** Transitivity and Polysemy, Triangle: Primary sense, Rhombus: Secondary sense

Our plots suggest that the distribution of content object NPs and clitics helps to distinguish the different senses of verbs. In P2, the intransitive verb πίνω (DRINK ALCOHOL) is positioned far away from the primary sense DRINK that is normally obtained with a content object NP (74% transitive occurrences, 8% clitics) despite the strong selection restrictions (contra Resnik (1996)). Similarly, the primary meaning of τρώω (EAT) is of low-medium transitivity (60%,19%) but the idiomatic sense STEAL (MONEY) is quite transitive (90%,25%) despite the strong selection restrictions that entail object recoverability. On the other hand, the metaphorical usages of καταβροχθίζω (DEVOUR) are very close to the canonical ones as in fact, there is only one verb sense.

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