Why would you D that?
On the D-layer in Greek clausal subjects

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Introduction In some languages, clausal subjects obligatorily have an overt DP element, like a definite article or a demonstrative, preceding them (henceforth D-layer). Researchers posit that the D-layer is essential for the clause to become a subject, as only DPs can occupy Spec, TP (Hartman, 2012; Kastner, 2015). These facts have been argued to hold across many languages, including Greek (Kastner, 2015). However, a more intricate examination of Greek clausal subjects shows that the D-layer is not always necessary.

In this talk we argue that the distribution of the D-layer in Greek clausal subjects is not governed by syntactic considerations, contrary to previous claims in the literature; rather, it is determined on the basis of semantics and pragmatics. We propose that the D-layer in clausal subjects introduces a presupposition that the proposition it modifies is consistent with the beliefs of the speaker. We then show that the semantics we propose for the D-layer along with additional pragmatic considerations accounts for its context-dependent distribution in Greek.

Empirical picture In Greek, clausal subjects can be headed by the neuter definite article *to*. In many cases, speakers find the presence of the definite article in this position optional (contra Kastner, 2015). This is illustrated in (1) below:

(1) Context: *There is a rumor that prince Andreas is getting married.*
[**(To) oti** o prigkipas Andreas pantrevete] ine pithano.
DET COMP DET prince Andreas marry.PASS.3SG be.PRS probable
'That prince Andreas is getting married is probable.'

However, we find that depending on the context speakers can show a preference for using or omitting the D-layer. In particular, the D-layer is preferred when the main predicate entails that the proposition p expressed by the clausal subject is true (i.e., p is in the set of the speaker's beliefs), as in (2), where the check-mark indicates preference. On the other hand, the D-layer is strongly dispreferred when the main predicate entails that p is false (i.e., p is inconsistent with the speaker's beliefs), like in (3).

(2) Context: *The speaker is a member of the flat Earth society.*
[(✓To) oti i ghi ine epipedhi] ine dedhomeno.
DET COMP DET Earth be.PRS flat be.PRS given
'That the Earth is flat is a given.'

(3) Context: *The speaker hates the flat Earth society and does not share any of their beliefs.*
[(??To) oti i ghi ine epipedhi] ine adhinaton.
DET COMP DET Earth be.PRS flat be.PRS impossible
'That the Earth is flat is impossible.'

These examples suggest a three-way distinction: the use of the determiner is preferred if the proposition expressed by the clausal subject is part of the set of beliefs of the speaker (2), strongly dispreferred if it is incompatible with their beliefs (3), and fully optional if it is compatible with but not part of their beliefs (1). Thus, the presence of the D-layer positively correlates with the degree of the speaker's certainty about the truth of the proposition expressed by the clausal subject.

Standard presupposition tests (von Fintel, 2004) indicate that this semantics arises as a presupposition that is contributed by the D-layer.

(4)   *Context: Speaker (a.) knows the Earth is round, but speaker (b.) believes it is flat.*

    a. [**To** oti   i   ghi   ine strogili] ine   to   thema sto   mathima fisikis   simera.
        DET COMP DET Earth is   round   be.3SG DET subject in-the class   physics today
        'That the earth is round is the topic in physics class today.'

    b. E,   miso lepto,   dhen iksera   oti   i   ghi   ine   strogili!
        hey half   minute NEG   know.PST COMP DET Earth be.3SG round
        'Hey, wait a minute, I didn't know the Earth is round!'

Notably, this distribution of the D-layer is not captured under the syntactic approach *à la* Hartman (2012) and Kastner (2015) under the assumption that the sentential subjects in (1)-(3) occupy the same structural position. If the D-layer was inserted for strictly syntactic reasons, we would not expect the semantics of the main predicate to affect its distribution in any way.

SEMANTIC PROPOSAL We propose that in Greek sentential subjects, the D-layer makes use of the doxastic set DOX of the speaker x, representing the set of their beliefs and takes the proposition p expressed by the clausal subject as its argument. It then introduces a presupposition that p is not contradicting with any other proposition in DOX. Thus, for every proposition in DOX, there is a world where it is true and p is too.

(5) $[\![to]\!] = \lambda x.\lambda p_{st} : \forall q_{st} \in \text{DOX}(\text{x}) \, \exists w \, [q(w) \wedge p(w) = 1]. \, p$

Note that this presupposition is rather weak. One may be temped to propose the following entry, where the presupposition is that p is part of the set of beliefs of the speaker:

(6) $[\![to]\!] = \lambda x.\lambda p_{st} : p_{st} \in \text{DOX}(\text{x}) . \, p$

However, (6) would make the wrong prediction for predicates like "probable", as in (1). If the speaker already believed p, then they would not simply state p is probable, since this would give rise to an implicature that p could be false. Thus, (6) would wrongly predict that a D-layer is impossible in (1). The compatibility of the D-layer with predicates implying that the speaker does not have beliefs about the truth value of p thus leads us to propose (5).

PREDICTIONS The denotation in (5) correctly rules out the presence of the D-layer in (3), where p is incompatible with the speaker's beliefs. The presupposition is not met, given that the predicate 'impossible' entails the proposition to be false. We also predict the optionality of the D-layer, since no anti-presupposition is triggered at the absence of a D-layer; this is because the structure without the D-layer is structurally simpler and thus does not compete with the D-layered one (Katzir, 2007).

PRAGMATIC CONSIDERATIONS This semantics alone, however, does not predict the difference between (1), where the D-layer is fully optional, and (2), where it is actually preferred. We propose that in the contexts where the use of the D-layer is not ruled out due to the semantics of the matrix predicate, its distribution is governed by the Maximize Presupposition! principle (Heim, 1991). In examples like (2), the presupposition of the D-layer will always be met due to the semantics of the matrix predicate. Thus, the speakers are expected to show a preference for the presence of *to* in these contexts. In examples like (1), however, the matrix predicate's semantics does not ensure that the presupposition of the D-layer is met. Thus, whether it is met or not is not part of the semantics of the sentence itself. In this case, the speaker may choose to enforce the presupposition of the D-layer pragmatically; this predicts that the presence of the D-layer will dependent solely on the conversational intents of the speaker.

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