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## Unembedded Indirect Discourse

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**Abstract.** This paper contributes to two debates: (i) the debate about whether or not ancient Greek has Free Indirect Discourse (FID), and (ii) the debate about how we should analyze FID semantically. We do this by showing that there is a distinction between FID and what we call Unembedded Indirect Discourse (UID). The semantic analysis that we develop for the latter shows that the two phenomena, though superficially similar, are semantically fundamentally different. We conclude that UID would have been more deserving of the title ‘free indirect discourse’ than the more quotative and direct discourse-like narrative technique that is now confusingly called so.<sup>1</sup>

**Keywords:** speech reports, Free Indirect Discourse, ancient Greek, subjunctive, oblique optative.

### 1. Introduction

There are conspicuously diverging opinions about whether or not ancient Greek has Free Indirect Discourse. In narratology and classical studies we find several authors express the view that the style can be traced back to ancient Greek, for instance in the *Handbook of Narratology*:

FID, though already present in ancient Greek and Latin literature and in biblical narrative, would not be identified until the last decades of the 19th century. [McHale 2009]

On the other hand, there is a common view that Free Indirect Discourse is a more recent invention:

The claim that instances of the style can be found in Greek and Latin finds little credence . . . and no plausible examples have been proffered to support this claim.

[Banfield 1982: 228]

Quite independently there has been considerable debate within formal semantics about how best to analyze Free Indirect Discourse. In particular there is an ongoing debate between, for instance, proponents of theories in terms of double context dependence (Schlenker, 2004; Eckardt, 2012);<sup>2</sup> monstrous indirect discourse (Sharvit, 2008); and (mixed) quotation (Maier, 2012).

We want to contribute to both debates by introducing a distinction between Free Indirect Discourse (FID) and what we call Unembedded Indirect Discourse (UID). More specifically, in this paper we (i) describe the phenomenon of UID as distinct from FID in ancient Greek, and (ii) propose

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<sup>2</sup>Going back to ideas of Banfield (1982).

an analysis based on Fabricius-Hansen and Sæbø's (2004) presuppositional analysis of a similar phenomenon in German. We conclude that failure to recognize the distinction between FID and UID may have contributed to (a) an overestimation of the occurrence of FID in older texts, and (b) the classification of FID as a kind of indirect discourse.

## 2. Unembedded Indirect Discourse in ancient Greek

In ancient Greek indirect discourse, a verb of saying can take as its complement

- a. a regular indicative finite *that*-clause;
- b. a finite *that*-clause with the verb in a special mood, called the optative;
- c. an infinitival clause.

In (1) we see (constructed) examples of each, all reporting the utterance γράφω *graphō* 'I am writing':

- (1) a. ἔλεξεν ὅτι γράφει  
*elexen hoti graphei*  
he-said that he-is-writing
- b. ἔλεξεν ὅτι γράφοι  
*elexen hoti graphoi*  
he-said that he-is-writing-**OPT**
- c. ἔφη γράφειν  
*ephē graphein*  
he-said to-write

Ad (1a): ancient Greek is a non-Sequence-of-Tense language. Hence the present tense in the complement (retained from the original utterance without modification). Ad (1b): the use of the optative in speech reports is called the *oblique optative*. It is subjunctive-like in the sense that in other languages, such as German, we often find the subjunctive mood (Konjunktiv in German) used in similar ways.<sup>3</sup> Ad (1c): in such infinitival constructions, ancient Greek does not express the subject of the complement's main verb if it is the same as that of the matrix verb, as in (1c). If it is not the same, it uses accusative case. So literally 'he-said her to-write' translates as 'he said that she was writing'. This construction is called the *accusative-with-infinitive* construction, AcI (Accusativus cum Infinitivo) for short.

Interestingly, when an author wants to report a longer discourse indirectly, he can continue to use the latter two indirectness markings (oblique optative or AcI) for several syntactically independent sentences, i.e. main clauses not embedded under verbs of saying. We see this for example in (2):<sup>4</sup>

<sup>3</sup>To avoid confusion: apart from the optative, ancient Greek also has a mood that is traditionally called the *subjunctive*. That mood is not related to speech reports and will not be discussed here.

<sup>4</sup>Throughout this paper we use the following conventions: verbs of saying are marked with bold face; infinitives are underlined (the accusatives belonging to these infinitives are not marked); optatives are double underlined; and we

- (2) Περσέων μὲν νῦν οἱ λόγιοι Φοίνικας αἰτίους φασὶ γενέσθαι τῆς διαφορῆς· τούτους γάρ, ἀπὸ τῆς Ἐρυθρῆς καλεομένης θαλάσσης ἀπικομένους ἐπὶ τήνδε τὴν θάλασσαν καὶ οἰκήσαντας τοῦτον τὸν χώρον τὸν καὶ νῦν οἰκέουσι, αὐτίκα ναυτιλίησι μακρῆσι ἐπιθέσθαι, ἀπαγινέοντας δὲ φορτία Αἰγυπτία τε καὶ Ἀσσύρια τῇ τε ἄλλῃ [χώρῃ] ἐσαπικνέεσθαι καὶ δὴ καὶ ἐς Ἄργος· τὸ δὲ Ἄργος τοῦτον τὸν χρόνον προεῖχε ἅπασιν τῶν ἐν τῇ νῦν Ἑλλάδι καλεομένη χώρῃ. Ἀπικομένους δὲ τοὺς Φοίνικας ἐς δὴ τὸ Ἄργος τοῦτο διατίθεσθαι τὸν φόρτον. Πέμπτη δὲ ἢ ἕκτη ἡμέρῃ ἀπ' ἧς ἀπίκοντο, ἐξεμπολημένων σφι σχεδὸν πάντων, ἐλθεῖν ἐπὶ τὴν θάλασσαν γυναῖκας ἄλλας τε πολλὰς καὶ δὴ καὶ τοῦ βασιλέως θυγατέρα· τὸ δὲ οἱ οὐνομα εἶναι, κατὰ τὸ αὐτὸ τὸ καὶ Ἑλληνες λέγουσι, Ἴοῦν τὴν Ἰνάχου. Ταύτας στάσας κατὰ πρύμνην τῆς νεὸς ὠνέεσθαι τῶν φορτίων τῶν σφι ἦν θυμὸς μάλιστα, καὶ τοὺς Φοίνικας διακελευσαμένους ὀρμῆσαι ἐπ' αὐτάς. Τὰς μὲν δὴ πλέονας τῶν γυναικῶν ἀποφυγεῖν, τὴν δὲ Ἴοῦν σὺν ἄλλῃσι ἀρπασθῆναι· ἐσβαλομένους δὲ ἐς τὴν νέα οἴχεσθαι ἀποπλέοντας ἐπ' Αἰγύπτου. Οὕτω μὲν Ἴοῦν ἐς Αἴγυπτον ἀπικέσθαι λέγουσι Πέρσαι, οὐκ ὡς Ἑλληνες, καὶ τῶν ἀδικημάτων πρῶτον τοῦτο ἄρξαι.

Hdt. 1.1

'The Persian learned men **say** that the Phoenicians were the cause of the dispute. These (they say) came to our seas from the sea which is called Red, and having settled in the country which they still occupy, at once began to make long voyages. Among other places to which they carried Egyptian and Assyrian merchandise, they came to Argos, which was at that time preeminent in every way among the people of what is now called Hellas. The Phoenicians came to Argos, and set out their cargo. On the fifth or sixth day after their arrival, when their wares were almost all sold, many women came to the shore and among them especially the daughter of the king, whose name was Io (according to Persians and Greeks alike), the daughter of Inachus. As these stood about the stern of the ship bargaining for the wares they liked, the Phoenicians incited one another to set upon them. Most of the women escaped: Io and others were seized and thrown into the ship, which then sailed away for Egypt. In this way, the Persians **say** (and not as the Greeks), was how Io came to Egypt, and this, according to them, was the first wrong that was done.'

This whole passage is an AcI report of what the Persians said.<sup>5</sup> Verbs of saying occur only twice: once at the beginning (*φασὶ phasi* 'said') and once at the very end (*λέγουσι legousi* 'said'). The infinitive in the first sentence, *γενέσθαι genesthai* 'to be' depends on the former syntactically, as we would expect. But then this infinitival construction is continued for several sentences, without the verb of saying being repeated.<sup>6</sup> The infinitive in these sentences still indicates that we have to do with a report of what the Persians said, but syntactically it does not depend on a verb of saying

use double spacing to highlight other elements of the example.

<sup>5</sup>The fact that not all English finite verb forms are underlined may give the impression that in the Greek text there is an alternation between infinitival and finite verb forms. All the verbs that are not underlined in Greek, however, are either participles or finite forms in clauses subordinated to the AcI construction.

<sup>6</sup>'They say' is added in the second line of the English translation to make clear that the report is continued, it is absent in the Greek text.

anymore.<sup>7</sup>

In fact, even the initial, overt indirect speech embedding is not necessary: an implicit or parenthetical *say* may suffice (cf. Cooper 1974). (3) is an example where the saying is expressed only parenthetically:

- (3) Ἰπὸ δὲ μεγάλῃος τῆς πόλιος, ὡς λέγεται ὑπὸ τῶν ταύτῃ οἰκημένων, τῶν περὶ τὰ ἔσχατα τῆς πόλιος ἠλωκότων τοὺς τὸ μέσον οἰκέοντας τῶν Βαβυλωνίων οὐ μανθάνειν ἠλωκότας, ἀλλὰ (τυχεῖν γάρ σφι εὐῶσαν ὀρτήν) χορεύειν τε τοῦτον τὸν χρόνον καὶ ἐν εὐπαθείῃσι εἶναι, ἐς ὃ δὴ καὶ τὸ κάρτα ἐπύθοντο. Hdt. 1.191  
 ‘because of the great size of the city, **those who dwell there say**, the inhabitants of the middle part did not know that those in the outer parts of it were overcome; all this time (since there happened to be a festival) they were dancing and enjoying themselves, until they learned the truth only too well.’

The AcI construction does not depend on the verb of saying λέγεται *legetai* syntactically, since that verb occurs in a parenthetical construction. Nevertheless, the AcI does indicate that we have to do with a speech report.

In (4) the saying is only implicit:

- (4) τῶν μὲν δὴ προτέρων ἐπρέσβευε Ἄρτοβαζάνης, τῶν δὲ ἐπιγενομένων Ξέρξης. Ἐόντες δὲ μητρὸς οὐ τῆς αὐτῆς ἐστασίαζον, ὁ μὲν [γάρ] Ἄρτοβαζάνης κατ’ ὅ τι πρεσβύτατός τε εἶη παντὸς τοῦ γόνου καὶ ὅτι νομιζόμενον εἶη πρὸς πάντων ἀνθρώπων τὸν πρεσβύτατον τὴν ἀρχὴν ἔχειν, Ξέρξης δὲ ὡς Ἀτόσσης τε παῖς εἶη τῆς Κύρου θυγατρὸς καὶ ὅτι Κύρος εἶη ὁ κτησάμενος τοῖσι Πέρσησι τὴν ἐλευθερίην. Hdt. 7.2  
 ‘Artobazanes was the oldest of the earlier sons, Xerxes of the later; and as sons of different mothers they were rivals. Artobazanes (pleaded that he) was the oldest of all Darius’ offspring and that it was everywhere customary that the eldest should rule; Xerxes (argued that he) was the son of Cyrus’ daughter Atossa and that it was Cyrus who had won the Persians their freedom.’

Here the optative is the only formal indicator that we have to do with a report (‘pleaded that he’ is added twice in the English translation to indicate the reportive status).

We coin the phenomenon illustrated in (2), (3), and (4) Unembedded Indirect Discourse. It shares some remarkable characteristics with the narrative technique called FID, of which (5) is a canonical example:

- (5) Tomorrow was Monday, Monday the beginning of another school week.

Both report modes

<sup>7</sup>One of the reasons why it cannot be one long sentence is the presence of the word γάρ *gar* in the second line, which always introduces a main clause.

- (i) are reportive: in (5) the story protagonist's thought or speech is reported
  - (ii) are syntactically unembedded: a verb of saying is absent or given only parenthetically
  - (iii) have pronouns and tenses behave as in indirect discourse: in (5) the past tense of *was* corresponds to what an indirect discourse report (6a) rather than a direct discourse report (6b) would be like.
- (6) a. He realized that the next day was Monday  
 b. He thought: 'Tomorrow is Monday.'

These similarities raise the question whether we have to do with FID here. In other words, is UID a form of FID?

In order to answer that question, we need to get a clearer picture of what distinguishes FID from indirect discourse. We see the difference between the two with various classes of linguistic expressions.<sup>8</sup> Table 1 gives an overview.<sup>9</sup>

	FID	indirect discourse
non-pronominal indexicals	always protagonist-oriented	always narrator-oriented
attitudinal particles	always protagonist-oriented	??
exclamatives	can occur	impossible

Table 1: FID versus indirect discourse

Although pronouns and tenses in FID behave as in indirect discourse, all other indexical expressions behave differently. While, for example, the indexical adverb *tomorrow* in (5) is interpreted from the perspective of the character or protagonist in the story, such a protagonist-oriented reading is impossible in indirect discourse where such indexical expressions are to be interpreted from the perspective of the actual speaker or narrator (hence the change to *the next day* in (6a) in order to report the same content).

As for attitudinal particles (such as German *doch, ja, wohl*), it seems that more work needs to be done before anything decisive can be said about their behavior in both constructions. But Eckardt's (2012) work on particles in FID suggests that in that construction they are protagonist-oriented.

Finally, exclamatives like *hurray* can occur in FID but not in indirect discourse.

<sup>8</sup>Such differences have been listed by many linguists and narratologists, among whom, for example Banfield (1982) and Schlenker (2004).

<sup>9</sup>This list is not exhaustive. Other differences that have been mentioned in the literature are, for example, the presence of direct questions and vocatives.

It turns out that if we look at the UID cases in ancient Greek, none of the indicators that point into the direction of FID is found there.<sup>10</sup> To the contrary, we do find indicators that point into the direction of indirect discourse. We see this, for example, when we look at definite descriptions. Definite descriptions in FID are protagonist-oriented (i.e. interpreted from the perspective of the reported speaker), whereas in indirect discourse they can be both protagonist-oriented and narrator-oriented (interpreted from the perspective of the actual speaker). (7) is an indirect discourse example:

(7) Oedipus believed that his mother was not his mother.

This sentence in principle has two readings. A non-sensical protagonist-oriented or *de dicto* reading in which Oedipus believes something like ‘My mother is not my mother’ (he believes in a contradiction), and a narrator-oriented or *de re* reading in which Oedipus believes of someone who the narrator refers to as *his mother* – Oedipus himself may think about this person in terms of e.g. *Iocaste* rather than *my mother* – that this person is not his mother.

By contrast, (8), the equivalent in FID, only has the contradictory protagonist-oriented reading:

(8) His mother was not his mother, Oedipus believed.

	FID	indirect discourse
definite descriptions	always protagonist-oriented	both protagonist-oriented and narrator-oriented are possible

Table 2: FID versus indirect discourse (continued)

In other words, narrator-oriented readings of definite descriptions tell us that we have to do with indirect discourse rather than FID. And indeed, such readings are available for the UID cases in ancient Greek, showing that UID is not a form of FID. (9) is an example:

(9) Σκύθαι μὲν ὧδε ὑπὲρ σφέων τε αὐτῶν καὶ τῆς χώρας τῆς κατύπερθε λέγουσι, Ἑλλήνων δὲ οἱ τὸν Πόντον οἰκέοντες ὧδε. Ἡρακλέα ἐλαύνοντα τὰς Γηρυόνηω βοῦς ἀπικέσθαι ἐς γῆν ταύτην εὐοῦσαν ἐρήμην, ἦντινα νῦν Σκύθαι νέμονται. Γηρυόνην δὲ οἰκέειν ἔξω τοῦ Πόντου, κατοικημένον τὴν Ἑλληνας λέγουσι Ἐρυθρίαν νῆσον, τὴν πρὸς Γηδείροισι τοῖσι ἔξω Ἡρακλέων στηλέων ἐπὶ τῷ Ὠκεανῷ. Hdt. 4.8  
 ‘This is what the Scythians say about themselves and the country north of them, but the Greeks tell the story as follows: Heracles, driving the cattle of Geryones, came to this land, which was then desolate, but is now inhabited by the Scythians. Geryones lived west of the Pontus, settled in the island that the Greeks call Erythraia, on the shore of Ocean near Gadira, outside the pillars of Heracles.’

<sup>10</sup>Herodotus is the most prominent user of this construction. Cooper (1974) has selected the occurrences in his work (many of which are quite long) and this formed our corpus, supplemented with examples in grammars and other secondary literature.

In (9) it is clear that the phrase *the island that the Greeks call Erytheia* originates from Herodotus rather than from the Greeks whose speech he is reporting (who probably simply said *Erytheia* or maybe *the island we call Erytheia*).<sup>11</sup>

To conclude, whereas FID patterns with direct discourse in many respects, we see that the cases of UID are really cases of indirect discourse, albeit indirect discourse that is not syntactically embedded, a class of speech reports that, as far as we know, has not been recognized as such before in the semantic literature. We will discuss the position of this construction within the taxonomy of reported speech and thought in the conclusion.

Having shown that UID is a kind of indirect discourse, in the next section we will give it a semantic analysis in which it is treated accordingly.

### 3. The Reportive Subjunctive as a presupposition trigger

To provide a semantic analysis of the phenomenon of unembedded indirect discourse in ancient Greek, we borrow from an existing analysis of a remarkably similar phenomenon in German, the so-called Reportive Subjunctive (also known in German linguistics as the *Indirektheitskonjunktiv* or *Konjunktiv der indirekten Rede*). We start by introducing this German subjunctive mood, and then present an analysis based on Fabricius-Hansen and Sæbø's (2004) idea that this mood morphology triggers a presupposition. We then apply this analysis to the Greek oblique optative, and finally extend it to the AcI.

#### 3.1. The reportive subjunctive in German

The Reportive Subjunctive is a special use of the German subjunctive mood that occurs in complements of indirect discourse reports (Jäger, 1971). We will not be concerned with any other uses of the German subjunctive, e.g. in conditionals, or the differences between the two distinct forms usually referred to as Konjunktiv I and Konjunktiv II. We will also ignore differences between verb-second and verb-final complements, and questions about exactly which classes of verbs other than *verba dicendi* may license this subjunctive in their complements.

Our starting point then is the observation that German, like ancient Greek, has a morphologically realized mood that is licensed by an indirect discourse construction. Here's an example from Fabricius-Hansen and Sæbø (2004):

- (10) Er behauptete, dass jemand das Auto angefahren habe  
*he claimed that somebody the car on-driven have.subj*

<sup>11</sup>Similarly, it seems that many of the proper names in UID would be pronouns rather than proper names in FID. It is however hard to compare the two in this respect since the use of proper names in FID needs further investigation.



‘He claimed that somebody had driven into the car’

Moreover, this extra marking of the indirect discourse construction is optional and semantically superfluous. According to Fabricius-Hansen and Sæbø (2004), there is no semantic difference between (10) and the variant with embedded indicative:

(11) Er behauptete, dass jemand das Auto angefahren hat

To explain such data, Schlenker (2003) proposes to analyze the reportive subjunctive as a logophoric mood, i.e., what we see in (10) is the phonological realization of a possible world variable decorated with a logophoricity feature that forces it to be bound by the reporting verb. However, just like the Greek oblique optative, the reportive subjunctive can occur in independent main clauses, as UID, we hypothesize. This may be as a “continuation” of an earlier, overtly embedded indirect discourse:

(12) Er sagte, sie sei schön. Sie habe grüne Augen  
*He said she be.subj beautiful. She have.subj green eyes*  
 ‘He said she was beautiful. She had green eyes, he said.’ [Jäger 1971]

The first sentence is a standard indirect discourse (in verb second form), featuring the (semantically superfluous) reportive subjunctive. This sentence would mean the same in verb final form (with complementizer *dass* (‘that’)), and with indicative instead of subjunctive mood. The second sentence is an unembedded, syntactically independent main clause. In the indicative it would simply mean that she has green eyes, but the subjunctive forces a reportive reading, viz., he (also) said that she had green eyes.

For examples like (12), a Schlenker-style analysis would have to invoke a mechanism of modal subordination. But given that subjunctive marked unembedded indirect discourses can also occur (both in German and in Greek) without any introductory embedded indirect discourse, this turns into positing covert saying verbs. We propose a less ad hoc solution: it is the subjunctive morphology itself that contributes the reportive interpretation. The main difficulty then becomes the formulation of a uniform, compositional semantics of the reportive subjunctive morpheme that (i) turns an entire clause into a report, but (ii) dissolves if the clause in question is overtly embedded. We propose such an interpretation in terms of van der Sandt’s (1992) presupposition-as-anaphora theory in DRT. Our principal inspiration is the similarly uniform and presuppositional account by Fabricius-Hansen and Sæbø (2004), which we modify in various (technical) respects.

### 3.2. A presuppositional semantics for the reportive subjunctive

Syntactically we assume that mood takes scope over the entire clause at LF, i.e. the mood morpheme on the verb corresponds to a sentential operator, **Subj**, at LF.

- (13) a. PF: Sie habe grüne Augen  
 b. LF: [<sub>S</sub> **Subj** [<sub>S</sub>[<sub>NP</sub> she] [<sub>VP</sub> have green eyes] ] ]

Without a **Subj** the verb would be spelled out as indicative. After describing in some detail the semantics of **Subj** we will return to Greek. The idea will then be that in a Greek finite clause, as in German, **Subj** surfaces on the main verb as an mood morpheme, the optative. Finally, to describe the reportive interpretations of independent AIs, we'll assume that in an infinitive main verb, **Subj** cannot be spelled out overtly.

Semantically, the challenge is now first to define the semantic contribution of **Subj** in such a way that the three utterances in (14) come out equivalent. (We are switching to an easier, and purely abstract example, merely for ease of presentation.)

- (14) Mary was complaining about the meeting.  
 a. [**Subj** [somebody left]]  
 b. She said that [somebody left]  
 c. She said that [**Subj** [somebody left]]

All three mean simply that Mary said that someone left (the meeting set up in the context). We define the contribution of **Subj** in a fairly conservative extension of DRT with presuppositions, lambdas and higher-order intensional predicates and discourse referents.

As usual in DRT, we describe this semantic contribution at the representational DRS level. The model-theoretic interpretation of DRSs is entirely straightforward and hence uninteresting. In the theory of presupposition-as-anaphora, interpretation is a two-stage process (not counting model-theoretic interpretation). The first stage is the translation from a syntactic LF to a preliminary (higher-order, intensional) DRS (PreIDRS). The difference between PreIDRSs and final, output DRSs is that presuppositions are represented *in situ* in a PreIDRS. Hence, the PreIDRS construction stage can (and should) be spelled out compositionally. The second stage consists in merging the PreIDRS with the context and resolving any presuppositions. This typically involves moving presupposed content around, and, for instance, enriching the context by accommodation, as dictated by pragmatic principles. This resolution stage eventually results in an updated output DRS, which will serve as input context for the interpretation of the next sentence.

So the clause under the scope of **Subj** in (14a) will be assigned the following preliminary DRS, based on the logical representations of its constituents *someone* and *left*. Given that the sentence does not contain presupposition triggers (we're disregarding the past tense), this would be its final output DRS as well. As for notation, we will suppress types (as well as syntactic structure and category labels), and use  $\mathbb{T}(\ )$  for the translation from LF to the logical PreIDRS language.

$$(15) \quad \mathbb{T}(\text{somebody}) = \lambda X_{et} \begin{array}{|c|} \hline x \\ \hline X(x) \\ \hline \end{array}$$

$$\mathbb{T}(\text{left}) = \text{leave}_{et}$$

$$\mathbb{T}(\text{somebody left}) = \frac{x}{\text{leave}(x)}$$

Adding the **Subj** operator turns this DRS into a largely presuppositional structure:

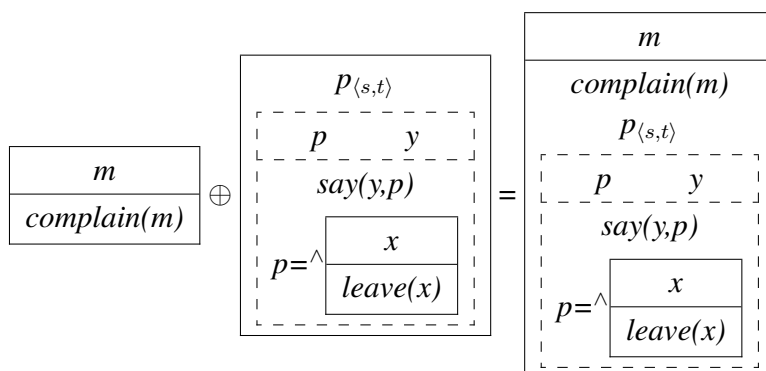
$$(16) \quad \mathbb{T}([\mathbf{Subj}[\text{somebody left}]]) = \begin{array}{c} p_{st} \\ \text{---} \\ p \quad y \\ \text{say}(y,p) \\ p = \wedge \frac{x}{\text{leave}(x)} \end{array}$$

The at issue contribution in (16) is only a propositional variable (type  $st$ , a function from possible worlds to  $\{0, 1\}$ ). The dashed box represents the unresolved presuppositional content. Strictly speaking there are two existential presuppositions here: (i) we're presupposing the existence of a proposition  $p$ , which is presupposed to be the proposition that someone left; and (ii) we presuppose the existence of a source  $x$ , someone who said that  $p$  (i.e.,  $\text{say}(x,p)$  means that  $x$  stands in the indirect-discourse-saying-relation to proposition  $p$ ). As usual in the theory of presupposition-as-anaphora, we see that the presupposition binds the at issue variable, that is, what the at issue  $p$  is will be determined by presupposition resolution.

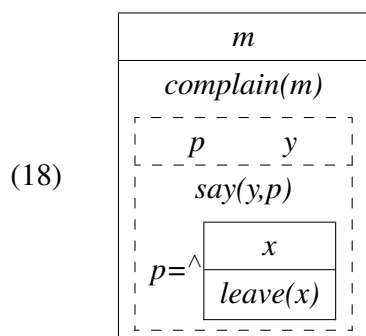
On a technical note: it may be tempting to formulate the contribution of **Subj** as a single lambda term (as did Fabricius-Hansen and Sæbø 2004), but this won't work because, for  $\xi$  a variable of type  $t$ , and  $\alpha$  a DRS (also of type  $t$ ),  $(\lambda\xi.\wedge\xi)(\alpha)$  does not denote the same proposition as  $\wedge\alpha$ . So we're stuck with adding a primitive construction rule for **Subj**, akin to (and reducible to, if desired) Heim and Kratzer's (1998) *intensional functional application* rule.

Now, consider first the case where  $[\mathbf{Subj}[\text{somebody left}]]$  as translated in (16) is used as an independent sentence, i.e. the UID case in (14a). In that case, the compositional translation phase for the sentence is over so we move on to stage two, adding the PreDRS to the context and looking for antecedents to bind our two presuppositions to:

$$(17) \quad \text{Mary was complaining about the meeting. Subj [ somebody left ]}$$



Before we go on resolving the two presuppositions, note that there is something unusual about this PreIDRS. DRS conditions are supposed to be statements, expressions of facts and relations between discourse referents and/or subDRSs – in Montagovian terms, conditions should be expressions of type  $t$ . But the condition  $p$  in (17) is of type  $st$ , which doesn't really make sense as a condition. Now, the reason this at issue  $p$  is there in the first place is because we want to be able to embed the subjunctive clause under a saying verb, as we will see in detail shortly. There are a number of potential remedies for this situation. Fabricius-Hansen and Sæbø (2004) effectively redefine the merge operation ( $\oplus$ ) to delete conditions of type  $st$  in the main DRS. A more drastic alternative would be to simply give up the idea of defining a uniform contribution for the subjunctive in embedded and free sentences, and thus undermine the ideal of a compositional PreIDRS translation. For now we follow Fabricius-Hansen and Sæbø, and leave an independent motivation of this stipulation for future research.<sup>12</sup> In other words, the result of the modified merge operation is (18):

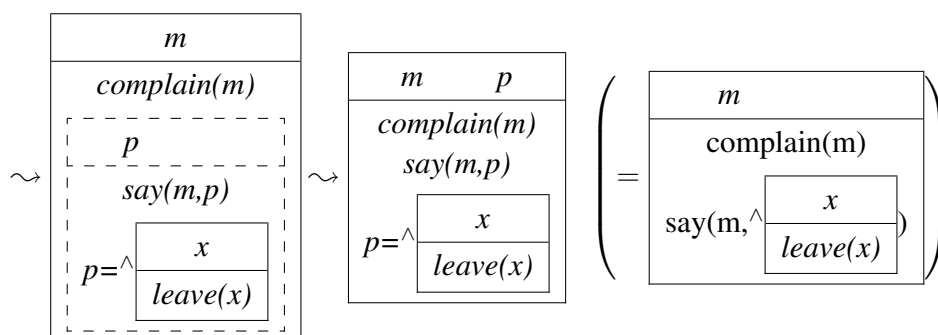


We now look for an antecedent speaker ( $y$ ) and an antecedent proposition ( $p$ ), or else accommodate. We can bind the source  $y$  in a context where it's clear who is reported to be speaking. These

<sup>12</sup>At Sinn und Bedeutung 18, Todor Koev suggested that maybe it's not so bad to leave the  $st$  proposition  $p$  (i.e. the proposition that somebody left) floating around in the main DRS context. Arguably, it could be pragmatically reinterpreted as indicating that  $p$  is an issue. In other words, we pragmatically turn  $p$  into the statement 'it is an issue whether  $p$  is actually true' ( $p \rightsquigarrow ?^v p$ ). Note that the more straightforward transformation, from  $p$  to the statement 'p is true' ( $p \rightsquigarrow^v p$ ) makes too strong predictions – it doesn't follow from the subjunctive UID statement in (14a) that someone actually left. It remains to be checked whether the suggested weaker implication, that it is an issue whether someone left, is generally valid.

are precisely the contexts where we typically find UIDs: stretches of reported discourse, clearly attributed to some salient contextual source, either implicitly or by a preceding canonical indirect (or direct) discourse. In this case, we just learned that Mary was complaining, so she is a salient speech act source for  $y$  to bind to:  $m = y$ .

Next, to bind  $p$  we would need a salient propositional discourse referent in the main DRS universe. Moreover, this antecedent proposition would have to be the proposition that somebody left, as specified by the final presuppositional content condition. There is no explicit antecedent to bind to, but it is easily accommodated. In fact, assuming the existence of a proposition that is (equal to) the proposition that someone left is completely costless, in the sense that it doesn't add any information to the common ground. It is an a priori given that every possible proposition "exists" (which says nothing about whether or not it is true). In addition to this "free" accommodation, we then only need to accommodate the remaining condition,  $say(y, p)$ , i.e. we're accommodating that  $y$  – or rather  $m$ , its previously established antecedent – said that  $p$ .



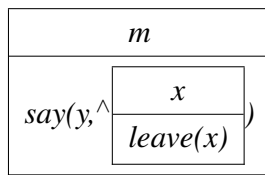
In this way we get the correct final output representation: i.e., the contextually salient source (Mary) said that someone left.

To show that this semantics, without any further modification, also works for the case where the subjunctive clause is overtly embedded, i.e. (14c), we add the following standard lexical entries for indirect discourse. We're assuming, again, the two-place relation  $say$  (of type  $(st)et$ ), and we analyze the complementizer as a vacuous operator, i.e. an identity function of type  $(st)st$ :

$$(19) \quad \mathbb{T}(\text{said}) = \lambda q_{(s,t)} \lambda z. say(z, q) ; \quad \mathbb{T}(\text{that}) = \lambda q_{(s,t)}. q$$

To interpret an indicative complement we need, again, something like Heim and Kratzer (1998) intensional functional application rule. We will assume a rule that says: if we want to feed a type  $t$  argument, in this case a DRS, to a function that takes only  $st$ , simply add an  $\wedge$  to lift the type of the argument. We can now combine all the lexical items above to get a proper, compositional PreIDRS representation for (14b), the overt indicative report:

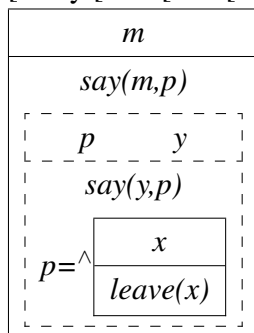
$$(20) \quad [\text{Mary} [\text{said} [\text{that} [\text{somebody left}]]]] \quad [= (14b)]$$



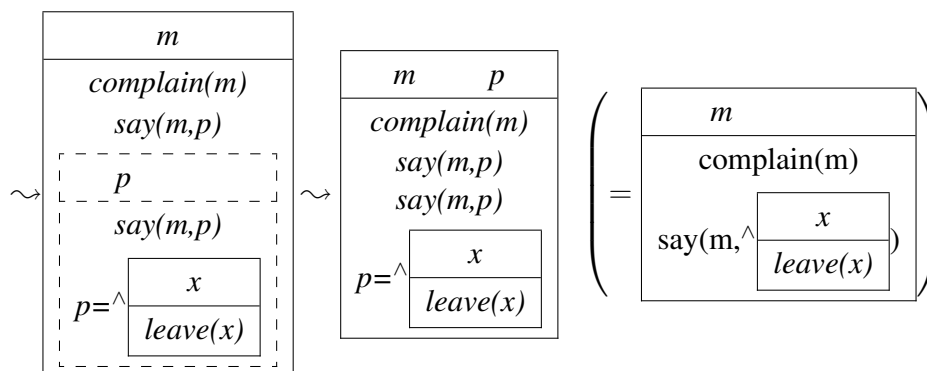
Since there are no presuppositions, adding this PreIDRS to the context comes down to adding the global condition *complain*(*m*). Comparing this with the output derived above we see that an overt indicative report indeed comes out equivalent to an unembedded subjunctive main clause.

On to the embedded subjunctive, (14c). Based on its LF and our lexical translation rules we get the following PreIDRS:

(21) [Mary [said [that [Subj[somebody left]]]]] [= (14b)]



We add it to the context, and look for antecedents for *y* and *p*. As before, *y* will be bound to Mary, the known speech act source from the context, and *p* will be accommodated, mostly for free (given the a priori existence of the proposition that someone left). At that point we can further clean up the representation by removing a superfluous occurrence of *say*(*m*, *p*), and eliminating the variable *p* for readability:



So, with only a minor tweak to the merge operation (remove non-*t* conditions), we captured the contribution of the subjunctive morpheme (corresponding to Konjunktiv in German and optative in Greek) in such a way that we can predict the key data, viz. the equivalence of overt indicative reports, overt subjunctive reports and independent main clause subjunctive. Apart from the merge

operation, we have relied only on standard DRT and presupposition theory.<sup>13</sup> In particular, our PreIDRS were constructed fully compositionally, and uniformly on the basis of a single **Subj** operator.

Our analysis, designed for the German Indirektheitskonjunktiv, applies to the ancient Greek oblique optatives out of the box. Both phenomena show the same reportive subjunctive behavior: when embedded in a report they add nothing to the truth conditions, but when they occur in unembedded main clause they turn a simple assertion  $\varphi$  into a semantically indirect report,  $x$  said that  $\varphi$ , in which the source,  $x$  is to be determined anaphorically. We can sum up our analysis of the reportive subjunctive (in German and Greek) as follows:

- (22) a. LF: [... [S **Subj** [S[NP someone] [VPleft]]]]  
 b. PF: **Subj**  $\rightsquigarrow$  optative/Konjunktiv morphology on the main verb

c. compositional semantics:  $\mathbb{T}(\mathbf{Subj} \varphi) =$

$p_{st}$						
<table border="1" style="border-style: dashed; border-collapse: collapse;"> <tr> <td style="text-align: center;"><math>p</math></td> <td style="text-align: center;"><math>y</math></td> </tr> <tr> <td colspan="2" style="text-align: center;"><math>say(y,p)</math></td> </tr> <tr> <td colspan="2" style="text-align: center;"><math>p = \wedge \mathbb{T}(\varphi)</math></td> </tr> </table>	$p$	$y$	$say(y,p)$		$p = \wedge \mathbb{T}(\varphi)$	
$p$	$y$					
$say(y,p)$						
$p = \wedge \mathbb{T}(\varphi)$						

### 3.3. The AcI at the syntax–semantics interface

We’ve analyzed the optative variant of UID in ancient Greek by interpreting the optative mood marker generally as a presupposition trigger. But what about the AcI marked cases of UID? There is no analogue in German, or, as far as we are aware, in any modern Romance or Germanic language. We will analyze Greek unembedded AcIs as potentially harboring the same **Subj**, but then not overtly realized. This means that we have to treat AcIs in Greek as syntactically on a par with (dependent or independent) clauses. Note that ancient Greek differs in this regard from many other European languages, where infinitival complements are generally more like VPs, or in any case cannot stand alone as independent main clauses. We turn to the peculiar morphosyntactic properties of the ancient Greek infinitive to explain how this exceptional behavior.

An infinitive is of course non-finite, meaning that it lacks agreement. But the classical Greek infinitive differs in one important respect from its modern Romance and Germanic counterpart: although it does not inflect for person and number, it does inflect for tense (future vs. non-future). Hence, Spyropoulos (2005; 2007) proposes that the ancient Greek infinitive comes with a “defective T” (marking tense but not person), but a T nonetheless. Ancient Greek infinitival complements therefore are somewhere in between the more familiar modern infinitives, which can never have overt subjects, and full finite clauses. In particular, unlike modern infinitives, which need their (covert) subjects to be controlled by a matrix argument, ancient Greek infinitival clauses can occur on their own, as unembedded main clauses.

<sup>13</sup>On a few points our formalization is more conservative than that of Fabricius-Hansen and Sæbø (2004).

This then is the reason why infinitival UID is syntactically possible in ancient Greek, but not in, say, German. The defective T hypothesis also explains why the overt infinitival subject is always in the accusative. Nominative case is usually assumed to be licensed specifically by agreement features in T, so that's out. Ferraresi and Goldbach (2003) argue, for Latin, where they discuss some similar AcI/UID-like constructions,<sup>14</sup> that the accusative is simply the unmarked case that gets plugged in by default here. According to Spyropoulos, it's the covert complementizer in the infinitival clause that, for reasons that go beyond the scope of this paper, assigns accusative case. For our current purposes it doesn't really matter where the accusative comes from. The most important thing is that infinitives have a defective T which allows them to have an overt, uncontrolled subject, and form a genuine CP that can be embedded under a saying verb, or occur on its own.

To explain why unembedded AcIs in ancient Greek are interpreted reportatively, i.e. as UID, we posit that infinitival clauses, like regular, finite CPs, can be modified by our presupposition-triggering **Subj** operator.<sup>15</sup> For morphological reasons, this **Subj** however doesn't get spelled out overtly on an infinitive main verb in ancient Greek. There just happens to be no optative infinitive form.

In sum, we predict the unembedded AcI whose LF and PF are schematically represented in English below to be semantically equivalent to the earlier three report variants from 3.2, i.e., the unembedded subjunctive, the embedded indicative, and the embedded subjunctive:

- (23) a. LF: [<sub>S</sub> **Subj** [<sub>S</sub>[<sub>NP</sub>someone] [<sub>VP</sub>leave.inf] ] ]  
 b. PF: Someone.acc to leave  
 c. interpretation: she said that someone left

### 3.4. Generic reporting

With our semantics of UID fully spelled out, we can turn to some actual text and check concrete predictions. For instance, the proposed presuppositional interpretation of **Subj** predicts that we need to find in the context an antecedent source for the report. But what if the context doesn't offer a concrete, salient, and plausible source? According to the theory of presupposition-as-anaphora, we first look for a suitable antecedent, but if we don't find one, we accommodate. In the case of our example UID, we had a context where Mary was complaining, so we derived that she was likely the one who said that someone left. In an empty context, all we'd conclude would be that there was a source who said that someone left.

In other words, the concrete prediction of our theory is that a UID  $\varphi$  in a context without a salient

<sup>14</sup>Further research on UID in Latin remains to be carried out. In any case, Latin patterns with Greek in having a rich, near-finite infinitive (with similarly defective T), and in having an AcI construction that can occur unembedded.

<sup>15</sup>It's not clear if (and if so, why) unembedded AcIs *must* contain a **Subj**, or whether embedded AcIs also contain one.



speech act source, is interpreted as a kind of generic report, or hearsay: *it is said that*  $\varphi$ , or *allegedly*  $\varphi$ .

We can check this in our ancient Greek corpus. Consider the following passage from Herodotus.

- (24) Λαβόντες δὲ αὐτὸν οἱ Πέρσαι ἤγαγον παρὰ Κῦρον. Ὁ δὲ συννήσας πυρὴν μεγάλην ἀνεβίβασε ἐπ’ αὐτὴν τὸν Κροῖσον τε ἐν πέδῃσι δεδεμένον καὶ δις ἑπτὰ Λυδῶν παρ’ αὐτὸν παῖδας, ἐν νόῳ ἔχων εἴτε δὴ ἀχροθίνια ταῦτα καταγιεῖν θεῶν ὅτεω δὴ, εἴτε καὶ εὐχὴν ἐπιτελέσαι θέλων, εἴτε καὶ πυθόμενος τὸν Κροῖσον εἶναι θεοσεβέα τοῦδε εἶνεκεν ἀνεβίβασε ἐπὶ τὴν πυρὴν, βουλόμενος εἰδέναι εἰ τίς μιν δαιμόνων ρύσεται τοῦ μὴ ζῶντα κατακαυθῆναι. Τὸν μὲν δὴ ποιέειν ταῦτα. Τῷ δὲ Κροίσῳ ἔστεῶτι ἐπὶ τῆς πυρῆς ἔσελθεῖν, καίπερ ἐν κακῷ ἔοντι τοσοῦτω, τὸ τοῦ Σόλωνος, ὡς οἱ εἶη σὺν θεῷ εἰρημένον, τὸ ἠμδένα εἶναι τῶν ζῶντων ὄλβιονι. Ὡς δὲ ἄρα μιν προσστήναι τοῦτο, ἀνενηκάμενον τε καὶ ἀναστενάξαντα ἐκ πολλῆς ἡσυχίης ἐς τρίς ὀνομάσαι Ἰσόλωνι. Καὶ τὸν Κῦρον ἀκούσαντα κελεῦσαι τοὺς ἑρμηνέας ἐπειρέσθαι τὸν Κροῖσον τίνα τοῦτον ἐπικαλέοιτο, καὶ τοὺς προσελθόντας ἐπειρωτᾶν. Κροῖσον δὲ τέως μὲν σιγὴν ἔχειν εἰρωτώμενον, μετὰ δέ, ὡς ἠναγκάζετο, εἰπεῖν . . . . Hdt. 1.86

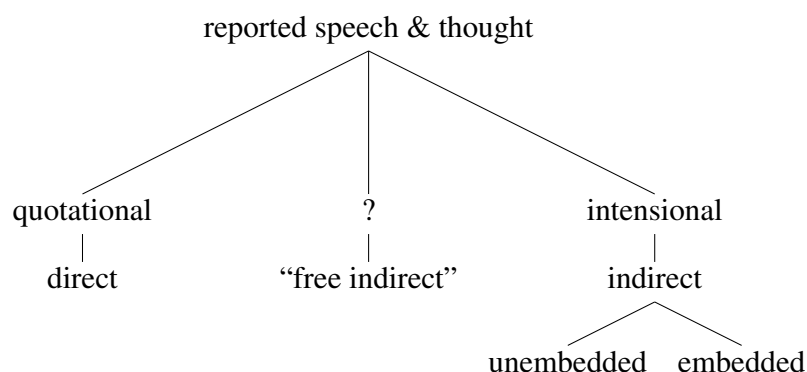
‘The Persians took him and brought him to Cyrus, who erected a pyre and mounted Croesus atop it, bound in chains, with twice seven sons of the Lydians beside him. Cyrus may have intended to sacrifice him as a victory-offering to some god, or he may have wished to fulfill a vow, or perhaps he had heard that Croesus was pious and put him atop the pyre to find out if some divinity would deliver him from being burned alive. So Cyrus did this. As Croesus stood on the pyre, even though he was in such a wretched position it occurred to him that Solon had spoken with god’s help when he had said that no one among the living is fortunate. When this occurred to him, he heaved a deep sigh and groaned aloud after long silence, calling out three times the name “Solon.” Cyrus heard and ordered the interpreters to ask Croesus who he was invoking. They approached and asked, but Croesus kept quiet at their questioning, until finally they forced him and he said . . .’

After a series of finite forms, Herodotus switches to unembedded infinitives (underlined). Assuming that these come with a **Subj** at LF, they trigger reportive presuppositions. Apparently, Herodotus wants to mark the fact that he didn’t get this information first hand. But it is not at all clear in the context who told Herodotus all this. We thus predict a hearsay interpretation: *it is said that* (or: *I’ve been told that*) *he did the following. Allegedly, as Croesus stood on the pyre . . . it occurred to him . . .*

Given the lack of native speakers, it is not trivial to prove that this is indeed the intended reading of the passage, but it does at least offer an initially plausible explanation for the occurrence of these AcIs. Further research is required to thoroughly check this and other predictions.

#### 4. Conclusion: The position of UID in the taxonomy of speech and thought reports

Inspired by the Greek data, we want to argue for the following picture:



We have argued that within the class of indirect speech and thought reports a distinction is to be made between embedded and unembedded ones (parallel to a distinction within the class of direct discourse reports into framed and unframed ones).<sup>16</sup> Furthermore, we have shown that unembedded indirect discourse is not to be confused with what is traditionally called “free indirect discourse”. The latter name is misleading for the construction it is used for since it suggests that that is indirect discourse that is free (i.e. syntactically unembedded). FID – to keep using the standard terminology – is free, but it is not indirect discourse. UID, by contrast, *is* indirect discourse that is free and hence would be more deserving of that title. We believe that recognizing the class of unembedded indirect discourse also helps us obtain a clearer picture of what FID is semantically, viz. something that should *not* be treated as a kind of indirect discourse.

It is important to see that the point we are making is not (just) terminological. Of course, we can invent a term that covers both FID and UID. ‘Not purely direct, unembedded speech/thought reports’ would capture both. Or one could propose to stretch the use of the term “free indirect discourse” so as to include not only what is traditionally called so, but also the phenomenon of unembedded indirect discourse. However, what we hope to have shown in this paper is that the resulting group does not form a semantically homogeneous class. To the contrary, the two are fundamentally different: FID is quotational/direct-ish, whereas UID is intentional/indirect-ish.

Let’s now return to the question of the existence of FID in ancient Greek raised at the very beginning of this paper. We clearly have not proven that FID does not exist in this language (it is quite difficult to prove that something does not exist in a dead language). But the fact that we have never seen clear examples of this technique *suggests* to us that it does not exist. This suggestion is easily falsifiable: if only an ancient Greek example is found that is reportive without being syntactically embedded and which furthermore has an exclamative and an indexical temporal adverb like ἐχθές *echthes* ‘yesterday’ that has a protagonist-oriented reading, we would happily acknowledge the existence of FID in this language. We think that the burden of the proof is with the scholars who claim that it exists.

We suspect that the existence of UID in ancient Greek may in some cases have contributed to the

<sup>16</sup>Most (if not all) unembedded ones in ancient Greek are speech rather than thought reports.

impression that the superficially similar and misleadingly named stylistic device FID is present in this language. What we have shown in this paper is that on a closer look the two are fundamentally different phenomena.

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