Prosodic Signals as Syntactic Formatives in the Left Periphery

Alessandra Giorgi

1. Introduction

In minimalist terms, the relationship between prosody and syntax is an interface issue. Given that the utterance must be interpreted and pronounced, its syntactic representation – the only level of representation admitted in a minimalist framework – must interface with the sensorimotor (SM) system on one side, and the cognitive–intentional (CI) one on the other. In the minimalist spirit, the utterance must also be exhaustively represented. Namely, we cannot expect a deus ex machina to provide further information in order to obtain the correct phonology and meaning; everything must already be given and nothing else can be added to the representation by inserting material taken from the outside at a further step. This might be too strong a view, but it is worth investigating, to see how far we can go under such an assumption.

The question I will consider is therefore the following: Which are the formatives that must be present in the syntax for the sensorimotor and the cognitive–intentional interfaces to solve their puzzle? My hypothesis here is that syntax is richer than previously thought, in that it also contains information usually considered as belonging to other levels of representation. However, whereas this information under previous approach was thought to come from the outside, under my hypothesis, it is basically given – i.e. taken from the Numeration – and undergoes the general rules of syntax.

To make this point, I consider two kinds of parentheticals, which are often called supplements: ¹ the one introducing Quotations (QU) and the one
introducing Free Indirect Discourse (FID). This choice is due to the fact that they have interesting properties both from the phonological point of view and from the interpretive one and therefore constitute an interesting case for studying both interfaces. Moreover, their analysis might shed light on the structure of the so-called left periphery of the clause, explaining also some phenomena still unaccounted for in previous literature.

2. The Case of Parentheticals

2.1. A Brief Description: Syntax and Phonology

It is quite problematic to provide a coherent definition of parenthetical, given that they cannot be identified as a homogeneous class. Syntactically, parenthetical structures can vary a lot, ranging from single words, such as what, comment clauses or epistemic verbs, such as I think, you know, to more complex structures such as as everybody knows, or and everybody will agree with me, to structures such as please take a seat which might be completely disconnected with respect to the content of the host utterance. The internal structure of parentheticals often exhibits some very interesting properties, which are worth studying, but which I will consider here only in passing. Phonologically, parentheticals are characterized by the so-called comma-intonation. Simplifying a quite complex and interesting discussion on this issue, such a typical prosodic pattern is mainly identified by means of pauses on the right and on the left of the supplement. I will briefly add a few words on this issue below.

Here I will focus on the syntactic relation of parentheticals with the host sentence. The main consideration is that parentheticals are linearly integrated, usually interpolated, in the host structure, in a non-casual way. However, it is often problematic to establish what the syntactic relation actually is, given that parentheticals in many cases are, apparently, structurally independent from the surrounding sentence. In other words, parentheticals give rise to a linearly organized utterance in combination with the host sentence, but at the same time, for several properties, they do not seem to fully belong to it.

Such a double nature of supplements led to two main accounts in the literature. According to some scholars, supplements are totally external to the syntactic structure of their host, to the point that some linguists see the combination of host and supplement as a sort of three-dimensional tree (Espinal 1991, Burton-Roberts 2006). According to other authors, supplements are syntactically adjoined to the host, as proposed by for instance by Potts (2002, 2005), who argues in favor of a right adjoined structure. Both points of view capture some properties of parentheticals, and paradoxically they both seem to be (almost) adequate accounts for the empirical observations. Hence, the problem is to provide an explanation able to accommodate the data, without giving rise to a contradiction.

On one side, it is correct to claim that parentheticals are independent from their host. One important consideration concerns the fact that parentheticals are illocutionarily independent. For instance, even if the host is an assertion, the parenthetical can be a question or an exclamative, as in the following examples (from Cinque 2008):

(1) She may have her parents with her, in which case where am I going to sleep? (Huddleston and Pullum 2002, ex. 10i, in quoted Cinque, 2008, ex. 36b)
(2) My friend, who God forbid you should ever meet,…(Werth 1974, fn4, quoted in Cinque 2008 ex.37c).

Furthermore, as noted by Selkirk (2005), the parenthetical and the host can have different truth values. The supplement might be false, while the sentence might be true:

(3) The Romans, who arrived before one hundred AD, found a land of wooded hills. (Selkirk 2005, ex. 5)
(4) The Romans who arrived before one hundred AD found a land of wooded hills. (Selkirk 2005, ex. 6)

The example in (3) contrasts with the one in (4). In sentence (3) the clause introduced by who is an appositive relative clause, hence a parenthetical, characterized by the comma intonation. Even if no Roman arrived before 100 AD, it can still be true that the Romans found a land of wooded hills. On the contrary, in sentence (4), where the relative clause is a restrictive one, if no Roman arrived before 100 AD, the sentence lacks a truth value.

Hence, it seems that parenthetical and host are significantly independent form each other, but, on the other hand, parentheticals are often connected in obvious ways to the rest of the utterance, as in the following case:
The sentence *Mary does not deserve that grant* is the object of the telling, namely, the host fills the object gap in the parenthetical. Even in sentence (3) above, the subject of the parenthetical is the subject of the host. Hence, it is impossible to interpret the one without the other. Moreover, notice that in isolation the sequence *John told me*, without a realized object, is not a grammatical sentence in English, in that the object cannot, be under normal circumstances, be dropped.

The issue is therefore to establish to what extent a host and supplement form a syntactic unit. According to some scholars, the syntactic relation is very loose – cf. among the others Haegeman (2009), Espinal (1991), Peterson (1999). According to other ones – see for instance Potts (2002, 2005), but one can go back to Ross (1973), Emonds (1973) and McCawley (1982) – there is syntactic relation to be expressed in various ways, as for instance by means of adjunction and/or derivation through movement.

Parentheticals also have distinctive prosodic properties and, as already noted by Nespor and Vogel (1986), they give rise to their own intonational domain. Typically, parentheticals are preceded and followed by a pause and prosodic boundaries.

Selkirk (2005) proposed that a [+comma] feature is responsible for the comma intonation in a variety of structures: parentheticals, *as*-clauses, non-restrictive relatives, nominal appositives, etc. – supplements in Potts’ (2002, 2005) terms. According to Selkirk, Comma Phrases are then mapped into Intonational Phrases. The comma intonation can be said to be one of the most prominent features of this kind of constructions. Consider for instance example (6):

(6)  *John, as everybody knows*, likes to go to parties.

As everybody knows is a Comma Phrase, to be mapped into an Intonational Phrase. Intuitively, there is a pause between *John* and *as*, and another one, even if less evident in some cases – between *knows* and *likes*. The pause in written language is often marked by a comma, whence the terminology. Note, however, that the intonational break – i.e. the comma – does not qualify as a necessary feature of parentheticals, as pointed out by Déhé and Kavalova (2007, 13), in that in some cases it “can be suspended depending on the parenthetical’s function, length and position.”

I cannot discuss here the huge literature on parentheticals and the different analyses which have been proposed, beginning with the first ones in the 70s – for instance by Ross (1973) and Emonds (1973, 1976). To this purpose, I refer the reader to the introductory chapter of Déhé and Kavalova (2007), which provides an ample review of the literature on the various topics connected to parentheticals.

The two kinds of parentheticals I will consider here have a crucial interpretive role with respect to their host. I will propose that they are syntactically integrated, in a way to be discussed, and that they are characterized by the comma intonation. Hence, the challenge is to encode all these properties – at least the relevant ones – in the only available level of representation, i.e. syntax. 2

### 2.2. Parentheticals in Free Indirect Discourse and Quotations Contexts

Free Indirect discourse (FID) is a literary style that gives the reader the impression of listening directly to the thoughts, or to the speech, of the main character in the narration. Consider for instance the following examples. Here I will provide examples both in Italian and English, since they work almost identically for the purposes relevant to this work:

(7)  *It was, he now realized, because of this other incident that he had suddenly decided to come home and begin the diary today*  (Orwell 1984, ch. 1)

(8)  *Tragedy, he perceived, belonged to the ancient time […]. Such things, he saw, could not happen today.*

Today there were fear, hatred, and pain, but no dignity of emotion.

(Orwell 1984, ch. 3)

(9)  *Era la sua forza—commentava Baudolino a Niceta—e in questo modo lo aveva menato per il naso una prima volta, lo stava menando ora e lo avrebbe menato per alcuni anni ancora.*

This was his strength—Baudolino commented to Niceta—and in this way he had lead him by the nose once, he was leading him by the nose now, and he would lead him by the nose for some years still.

(Eco, Baudolino 2007 p. 264)

FID has many interesting properties, which have been extensively investigated by scholars. What I will consider here is the sentence which permits attributing the speech or thought to the relevant character. These sentences are
written in italics: *he now realized in (7), he perceived and he saw in (8), commentava Baudolino a Niceta* (Baudolino commented to Niceta) in (9). They are typically associated with the comma intonation and qualify as parentheticals.

As far as Quotations (Qu) are concerned, consider the following examples:

(10) Partirò domani, disse Gianni ieri.
(11) I will leave tomorrow, *John said yesterday.*

We know to whom the quote must be attributed thanks to the sentences *disse Gianni ieri and John said yesterday.* In this case as well, we can recognize the comma intonation and the sentence qualifies as a parenthetical.

Roughly speaking, considering the examples provided here, the role of the parenthetical is to specify who is the author of the speech, or the owner of the thoughts. For instance, in (11), the whole clause *I will leave tomorrow* would receive a very different interpretation with or without the parenthetical. Without the parenthetical *I* refers to the speaker and *tomorrow* is the day after the day of the utterance. When the sentence is followed by the parenthetical, *I* refers to *John* and *tomorrow* to the day after *John’s* speech – which from the speaker’s point of view in the example given above is actually *today*.

In the same vein, *today* in examples (7) and (8) must be interpreted from the point of view of the character of the narration – in the case of the novel *Baudolino* (Baudolino commented to Niceta) in (9). They are typically associated with the comma intonation and qualify as parentheticals.

Hence, parentheticals in these cases bear an important role, because they set the scene for what follows, providing the crucial information permitting the correct interpretation of indexicals, i.e. mainly tenses, pronouns and temporal (and spatial) adverbials.³

As I said above, the FID is a peculiar literary style, where the narration proceeds from a source internal to the narrated text, i.e. one of the characters. Hence, it is possible to identify an *internal source* – i.e., the character whose thoughts are being expressed – and an *external one* – the writer, or speaker, i.e. the creator of the text. The grammatical effect of this style is to reset the temporal (and spatial) coordinates in C, so that in FID contexts the coordinates appearing in C are the internal source’s and not the external’s one. The resetting is due to the introducing predicate, namely to the parenthetical.

In FID constructions, indexicals are interpreted taking as a reference point the temporal and spatial location of the character in the narration. Hence, as I already pointed out above, *today* in (7) and (8), and *now* in (9) are interpreted with respect to the internal source, Winston and Baudolino respectively. Note that in normal texts, the reference point for indexicals is the speaker, who is referred to by means of the first person. That is, when the speaker talks about herself, she uses the pronoun *I*.⁴

(12) I will leave *tomorrow*.
(13) Mary met *my mother yesterday*.

Normally, therefore, the reference points for the interpretation of indexicals and pronouns are coherent. The pronoun referring to the speaker is the first person one. The time adverbs *tomorrow* and *today* locate the event with respect to the location of the speaker. Accordingly, tenses locate events in the past, in the present, or in the future of the speaker.

In FID, however, pronouns do not shift. As can be seen in the examples above, *he* and *his* refer to the internal source, which is therefore not addressed by means of the first person. Hence, in example (7), *he* had suddenly decided […] to *begin the diary today*, the indexical *today* is interpreted with respect to Winston’s location, but he is identified by means of a third person, *he*, and not a first person pronoun. Consider also the following examples:

3. A Brief Discussion of Free Indirect Discourse and Quotation Contexts

Let me briefly introduce here the properties of FID contexts. My aim is not to provide an exhaustive discussion of the phenomena concerning this literary style – see among the others Sharvit (2004), Guéron (2003) and Giorgi (2010) – but only to highlight the points relevant to the present discussion.

In Giorgi (2010), I proposed that the left-most position in the C-layer contains the coordinates of the speaker, i.e. her temporal and spatial location, as a sort of empty determiner, pointing to the extra-sentential context. In other words, this position in the C-layer acts as a *bridge* between the syntax and the context, permitting the correct interpretation of indexicals, i.e. mainly tenses, pronouns and temporal (and spatial) adverbials.³
The thing that now suddenly struck Winston was that his mother’s death, nearly thirty years ago, had been tragic and sorrowful in a way that it was no longer possible. Tragedy, he perceived, belonged to the ancient time [...]. Such things, he saw, could not happen today. Today there were fear, hated, and pain, but no dignity of emotion. (Orwell, 1984, ch.3)

In this example as well, we see that indexical temporal expressions (in bold) are interpreted with respect to the temporal location of the internal source, but the possessive pronoun referring to him is a third person one, his. Giorgi (2010) explained this property on the basis of the consideration that I, and the equivalent io in Italian, mean the speaker. The internal source, however, cannot be identified as “the speaker”, because only the external source qualifies as such. Consequently, the first person pronoun cannot be used. Note, that this is a lexical property of English and Italian and that other languages might show different ones.

The role of the parenthetical is that of providing the new coordinates, which the reader has to substitute for those of the speaker. In other words, by means of the parenthetical we know that the host sentence expresses Winston’s perception and that we have to interpret the temporal indexicals with respect to Winston's temporal location.

Quotations – analogously to the FID – require the resetting of the speaker’s temporal (and spatial) coordinates, which are replaced by the internal source’s temporal (and spatial) location:

(15) Domani, disse Gianni, andrò al mare con Maria.
(16) Tomorrow, said Gianni, I will go to the beach with Maria.

In this case, as can be seen from the examples, the shifting also concerns pronouns, in that the first person pronoun is used to refer to the internal source, i.e. to the person whose speech is being quoted. A possible explanation, according to the lines sketched above, is that in quotations as a matter of fact, the internal source does qualify as a speaker, being therefore compatible with a first person pronoun, both in Italian and English.

As a final remark, let me point out that in quotations the host without the supplement would still be a grammatical sentence, even if with a different interpretation. In FID, however, the host, if not interpreted according to the instruction of the FID parenthetical, is often ungrammatical, as for instance in the following cases:

(17) Tomorrow was Monday, Monday, the beginning of another school week! [Lawrence, Women in Love, p. 185, London, Heinemann 1971; quoted in Banfield, (1982: 98); Doron (1991) and Schlenker (2004)]
(18) “Tomorrow John was happy

The past tense was can be compatible with tomorrow only if the sentence is interpreted as FID, as it clearly emerges by comparing (17) with (18). In other words, in FID contexts the presence of the supplement – i.e. of the element providing the information that we are listening to the character’s thoughts and not to the speaker’s – makes the host grammatical. This is not the case with sentences (19) and (20) compared with (15) and (16) above:

(19) Domani andrò al mare con Maria.
(20) Tomorrow I will go to the beach with Maria.

The sequence is grammatical even without the supplement. Trivially, however, it cannot be understood as a quotation, in that indexicals are interpreted with respect to the speaker’s temporal and spatial coordinates, and not to the ones of an internal source.

4. The Proposal

The cases discussed in the preceding section clearly show that the supplement and the host cannot be considered “independent” from each other, in that the presence of the supplement determines the interpretation of the host, and even its grammaticality, as shown by the contrast (17)-(18). The idea I will argue for in this paper is that the interpretive properties of these two types of parentheticals are strongly tied to their prosodic characteristics. In a certain sense there is a short-circuit between the two interfaces, which seem to talk to each other, in that the comma intonation associated to the parenthetical on the phonological side defines the interpretation of the sentence, on the interpretive one.

My hypothesis is that the syntax mediates between the two, providing the relevant information to both interfaces. In order to do so, I propose that the syntactic structure must be enriched with a layer encoding the information
concerning the parenthetical. I will argue that this layer is at the left of the C-layer and is able to define the nature of the spatial and temporal coordinates contained in its leftmost position. Given that this extra layer linearly precedes C, as I will better discuss below, it must also be hierarchically higher (cf. Kayne 1994).

The first question to be considered is linearization. With respect to supplements, this issue has been variously debated and several solutions have been proposed, as briefly presented above. According to some scholars parentheticals are totally independent and non-integrated, whereas for other ones syntactic and prosodic factors interact. In both cases, the linearization issue is not trivial. In the non-integrated perspective, the problem is to account for word order factors and prosodic and intonational properties. On the other hand, assuming the adjunction hypothesis, one faces the drawbacks of a non antisymmetrical tree, in the terms developed by Kayne (1994).

My proposal is that parentheticals – at least those considered in this work – conform to the general principles of linearization applied in syntax. In particular, I adopt Kayne’s (1994) view that linear order is derived from hierarchical properties, namely, that linear precedence reflects asymmetric c-command. In particular, I capitalize here on the corollary following from Kayne’s idea that, therefore, symmetric structures are ruled out. Consider for instance (16):

(21) "[XP YP]

This structure is ruled out because XP and YP symmetrically c-command each other and therefore cannot be linearly ordered. Conversely, the following structure is grammatical:

(22) [XP [H YP]]

In (22) an intervening head creates a structure where c-command is asymmetric making linearization possible. This principle had an important heuristic power especially in the developing of the cartographic approach to syntax, which is based on structures such as (22), as opposed to (21).8

Let me stress again that Kayne’s hypothesis rules out adjunction, as a source of symmetric structures. This is particularly relevant here, given that adjunction of the parenthetical to the host has often been considered a possible syntactic structure in the so-called integrated approach.9

The approach I argue for in this work is an integrated one, and is based on Kayne’s idea that a head must intervene between every two maximal projections. Recall that I am considering here the idealized situation in which all parentheticals are prototypical, that is, surrounded by intonational pauses. Hence I propose that the pause, or the Comma, is a head, K, and projects its own constituent. Since there are two intonational breaks, there are two heads K, the higher one taking the parenthetical as its complement and the lower one taking the host sentence as its. The notion of complement here is to be understood purely in structural terms, and not in lexical ones. Therefore, a certain degree of syntactic ‘permeability’ – as variously pointed by many scholars – between the supplement and the host can be allowed, but there is no subordination relation, due to the nature of the head K, which is not a complementizer, as I will better clarify below.10

The C-layer is the syntactic interface with the context and the role of the K-layer, in the two cases considered here, is the setting of the context.

Several considerations are in favor of this hypothesis. The interpretation of the whole sentence, and in some cases its grammaticality as well, in the case of FID and Qus, depends on the presence of the parenthetical. The parenthetical defines the content of the leftmost position in the C-layer, in that it defines the temporal and spatial coordinates that must be taken into account for the interpretation of the indexical elements inside the sentence. Therefore, since this relation is to be established through some sort of agreement between the nominal referring to the character mentioned in the supplement and the content of C – as will be better discussed below – the parenthetical must be hierarchically higher than the host. Interpretively therefore, the K-layer is on the left of the left periphery.

My hypothesis is that it is also structurally so, being therefore, both interpretively and hierarchically prominent. The welcome consequences of this proposal is that from a structural point of view linearization properties are accounted for, in a non ad hoc way, without having to resort to three-dimensional trees or to adjunction/insertion strategies. In other words, the presence of K, a non-lexical head, mediates between the syntax and the prosody, guaranteeing at the same time a certain independence between the supplement and the host. Note that in most cases, the supplement appears inside the host, or at its end. I propose that topicalization moves part of the host, or all of it, in Spec,K.

Let me illustrate how this hypothesis works. Consider first FID parentheticals:
The new ration did not start till tomorrow and he had only four cigarettes left, *Winston thought* (adapted, Orwell, 1984, ch. 5)

According to the hypothesis outlined above, the sentence in (19) starts as in (20):^{11}

\[
(24) \ [KP \ K \ [Winston \ thought \ [KP \ K \ [IP \ldots \ ] \ ]])
\]

The higher K takes the supplement as its complement. The predicate of the supplement takes the Lower KP as its. Then topicalization of the whole IP takes place:

\[
(25) \ [KP \ [IP \ldots \ ], \ K \ [Winston \ thought \ [KP \ K \ t]]]
\]

The whole IP is topicalized in Spec,KP. There are two points that deserve further investigation. The first one concerns word order inside the supplement. In fact it is very frequent to have subject inversion – i.e., *thought Winston*, beside *Winston thought*. I will not have the possibility to consider this property here. The other one concerns the nature of the topicalization process and its quasi-obligatoriness. I will say a few words on this point in section 5.

The same reasoning applies to quotations. Consider the sentence in (22):

\[
(26) \ I \ will \ leave \ tomorrow, \ John \ said \ yesterday.
\]

The basic structure is the one in (23):

\[
(27) \ [KP \ K \ [John \ said \ yesterday \ [KP \ K \ [IP \ldots \ ] \ ]])
\]

Followed by topicalization of the whole clause in Spec,KP:

\[
(28) \ [KP \ [IP \ldots \ ], \ K \ [John \ said \ yesterday \ [KP \ K \ t]]]
\]

Note that the supplement is by no means a grammatical sentence in isolation, as pointed out above. Beside the possibility of subject inversion, *said* and *thought* in fact need a complement and cannot normally appear as intransitive predicates.^{12}

The structures proposed in (24) and (27) can shed some light on this observation. The predicates in question in fact do have a complement, in the form of a KP, instead of a CP, which is able to satisfy their requirements. Recall again, however, that there is no *subordination* relation, due to the fact that the head K is not a complementizer, but a prosodic formative. In other words, a CP can be an argument and receive a theta-role, whereas this is not the case for a supplement, which is never thematically related to the host.

Interestingly, Selkirk (2005, §2) observes that: “Root sentences and supplements form a natural class, in that they *both* are comma phrases, and so [...] set off by Intonational Phrase edges from what surrounds them.” – see also Dehé 2009 for a discussion. The proposal above does in fact complies with Selkirk’s observation, in that both supplement and host are identified as KPs, in the sense that both of them are dominated by a K projection.

Note that the idea of introducing heads not corresponding to any possible lexical material, is also mentioned in Cinque (2008) for discourse fragments. He proposes that discourses are actually organized in hierarchical structures and are not a mere concatenation of phrases. His proposal is the following:

\[\text{(29) John is no longer here. He left at noon. (Cinque 2008, ex.59)}\]

\[\text{(30) [HP \ CP \ [H \ CP]]}\]

\[\text{(31) A pink shirt? I will never wear any such thing in my life! (Cinque 2008, ex.60)}\]

\[\text{(32) [HP \ DP \ [H \ CP]]}\]

Cinque’s (2008) proposal is that a head H intervenes between two sentences as exemplified in (30). Analogously, H intervenes between a DP and a CP in (32). The head H is very similar to the prosodic head K, in that, at least potentially, a pause may intervene between the two constituents.

Let me point out a further consideration. Given the proposal sketched here, one might wonder whether normally – i.e., in structures that are not specified as FID or Qu – there is something at the left of CP, defining the content of C-speaker, in way analogous to the contexts discussed above, namely, whether K is always present at the left of the C-layer. For uniformity, let’s assume that this is the case and that the present of K might interact in interesting ways with the informational structure of sentences, and in particular with topicalized – given – constituents. I will go back to Cinque’s proposal to account for some specific
cases of FID.

5. Syntactic Properties

In this section I briefly discuss some crucial syntactic properties of the two contexts considered here, in order to better understand the possible implementations of the proposal sketched above.

5.1. Free Indirect Discourse

Let’s consider first the distribution of the FID supplement. Interestingly, this supplement is not embeddable, namely, the host must be the root sentence, as opposed to a subordinate clause. In this section, I will analyze made up data, and not literary ones. Consider the following contrast, both in Italian and English:

(33) Paolo, pensò Maria, sperava che Gianni partisse al più presto.
(34) Paolo, thought Maria, hoped that Gianni would leave at the earliest.

(35) *Paolo sperava che Gianni, pensò Maria, partisse al più presto.
(36) *Paolo hoped that Gianni, thought Maria, would leave at the earliest.

Examples (33) and (34) sharply contrast with (35) and (36). This contrast follows from the hypothesis above. Given that the supplement in this case provides instructions for the interpretation of the whole sentence, by means of the setting of the relevant coordinates in C, we expect it to have scope on the whole host. In other words, a structure like (35), or (36), where we find an embedded supplement, would entail that the main clause is interpreted with respect to the speaker’s coordinates, whereas the embedded one with respect to the character ones. Such a change of perspective is impossible inside the same sentence, namely, each sentence must uniquely specified for the interpretation of indexicals.

The actual sentences in (33) and (34) are obtained by means of topicalization of the subject in Spec,K. As discussed above, various items can be topicalized. Often, in literary texts, the whole sentence appears in pre-supplement position. Consider the following cases:

(37) Paolo sperava che Gianni partisse al più presto pensò Maria.
(38) Paolo hoped that Gianni would leave at the earliest, thought Maria.

However it is also possible to find an adverb, or any other constituent, in pre-K position, as in the following cases:

(39) Francamente/sicuramente/probabilmente, pensò, Gianni sarebbe partito domani.
(40) Frankly/surely/probably, she thought, Gianni would leave tomorrow.
(41) Domani, pensò, Gianni sarebbe partito.
(42) Tomorrow, she thought, Gianni would leave.
(43) A Maria, pensò, Gianni non avrebbe più fatto regali.
(44) To Maria, (she) thought, Gianni would give no more presents.

Note that topicalization is obligatory. There is a subtle but systematic contrast between the following two examples:

(45) Sarebbe partita domani, pensò.
(46) She would leave tomorrow, she thought.
(47) #Pensò sarebbe partita domani.
(48) #She thought she would leave tomorrow.

Examples (47) and (48) are not ungrammatical, but are not FID examples. In this case, the indexical temporal expression can only be understood as the day after the utterance time – i.e., it is evaluated with respect to the external source’s coordinates. In order for the supplement to precede the sentence, an extra-long pause is needed, which in written language might be noted as a colon:

(49) Pensò: sarebbe partita domani.
(50) She thought: she should leave tomorrow.

When the introducing predicate precedes, a clitic might appear referring to the following clause, as in the following example:

(51) Lo ricordò dopo uno sforzo di memoria anzi di ragionamento: doveva essere passata per quella via essendo giunta a quell’altra da casa sua. (Italo Svevo, La novella del buon vecchio e della bella fanciulla, ch.8)

She remembered it with an effort of memory, or better to say of reasoning: she should have passed through that street to reach that other one from...
The presence of the resumptive clitic shows that the structure instantiated in these cases is different from the other one, where the clitic is impossible:

(52) *Domani, lo pensò Maria, Gianni sarebbe partito.
    *Tomorrow, Maria thought it, Gianni would leave.

I will go back to these structures and propose an account for them in a little while – see sect. 5 below. Note also that the supplement can be both preceded and followed by a topic, or by multiple topics:

(53) Domani, pensò, quel libro, l’avrebbe finalmente venduto.
    Tomorrow, (she) thought, that book, (she) it-CL would eventually sell.
(54) Domani, a Gianni, pensò, quel libro, gliel’avrebbe finalmente venduto.
    Tomorrow, to Gianni, (she) thought, that book, (she) to him-it-CL would eventually sell.
(55) Domani, quel libro, pensò, lo avrebbe finalmente venduto a Gianni.
    Tomorrow, that book, she thought, it-would eventually sell to Gianni.

As far as topic is concerned, I showed that topicalization is obligatory, and that different topics can precede and/or follow the supplement. Now I will show that these structures are incompatible, or at least quite odd, with Focus constructions. Consider for instance the following examples, where the capitalized constituent must be intended as a contrastive focus:

(56) ?*A Maria, pensò, Gianni non avrebbe fatto più regali (non a Susanna).
    TO MARIA, (she) thought, Gianni would give no more presents (not to Susanna).
(57) *A Maria Gianni, pensò, non avrebbe fatto più regali (non a Susanna).
    TO MARIA Gianni, (she) thought, would give no more presents (not to Susanna).

The presence of a focalized constituent makes the sentence ungrammatical, in my variety of Italian, or at least very marginal. Consider also the following ones which is even more marginal:

(58) A Maria Gianni non avrebbe fatto più regali (non a Susanna).
    TO MARIA Gianni would give no more presents (not to Susanna).
(59) ??A Maria, regali, Gianni non ne avrebbe fatti più (non a Susanna).
    ??TO Maria, presents, Gianni would CL-give no more (not to Susanna).

The presence of a preverbal subject with a contrastive focus is perfectly ok – as shown by (58) – whereas example (59) is (remarkably, to me) worse.

If this is the case, then we have a strong argument in favor of the view I am arguing for, given that an adjunction theory for supplements could not derive the contrasts in question. Adjunction in fact cannot allow topicalization from inside the host, across the supplement, the two being independent constituents. Moreover, since the structure is often taken to be a right adjunction (Potts, 2002, 2005), the adjoined node should be the IP. According to this view, therefore, no contrast should arise and all sentences should be equally grammatical, which is not the case.

5.2. Quotations

The supplement introducing quotations exhibits very similar properties. As FID supplements, it cannot be embedded. Consider the following discourse:

(60) Maria disse: “Luigi spera che Gianni sposi Lucia.”
    Maria said: “Luigi hopes that Gianni marries Lucia.”
(61) Paolo, disse Maria, spera che Gianni sposi Lucia.
    Paolo, said Maria, hopes that Gianni marries Lucia.

As illustrated above, it is possible to express the discourse in (60), by means of the following sentence:

(62) Maria disse: “Luigi spera che Gianni sposi Lucia.”
    Maria said: “Luigi hopes that Gianni marries Lucia.”

In principle, therefore, one would expect that an embedded discourse can
also be expressed by means of an embedded supplement, but this does not seem to be the case. Consider the following examples:

(62) Paolo crede che Maria abbia detto: “Gianni sposerà Lucia.”
Paolo thinks that Maria said: “Gianni is going to marry Lucia.”

(63) *Paolo spera che Gianni, disse Maria, sposerà Lucia.
*Paolo hopes that Gianni, said Maria, is going to marry Lucia.

This possibility is clearly ruled out, namely (63) is not a grammatical way of expressing the content in (62). Sentence (63) cannot correspond to the discourse in (60) either. In other words, an embedded supplement in the case of quotations gives rise to an ungrammatical structure. Note also that the grammaticality of (62) shows that quotations per se can indeed be embedded. Embedding is ruled out only when the introducing predicate – Maria disse (Maria said) – is expressed as a supplement.

The impossibility of embedding is to be interpreted as proposed above for FID cases. The supplement in example (63) is supposed to modify the coordinates of the embedded clause, whereas the main clause, with the verb spera (hopes) must still be interpreted with respect to the speaker’s coordinates. This shifting inside the same sentence is impossible, as remarked above.

The direct discourse in (62) and the structure with the supplement must therefore be considered as two different structures. This observation seems to be on a par with the consideration concerning examples (49) and (50) above. I will show in the following section that these two cases instantiate a structure that is not the one proposed here for the supplement – host combination.

6. More on the Syntactic Structure of KP

In section 4, I proposed the following structure:

(70) \[ KP \; [supplement \; [KP \; K \; [IP…]\; ]\; ]\; ]

The data illustrated above can all be accounted for by means of this hypothesis. The topicallyized phrases appear in Spec,K, which is available both on the left and on the right of the supplement. Multiple topics are also possible, by iterating the structure, i.e. by inserting more Ks. Coherently with this view, a multiple topic structure is realized with multiple pauses, as for instance in ex. (55), repeated here for simplicity:

(71) Domani, quel libro, pensò, lo avrebbe finalmente venduto a Gianni.
Tomorrow, that book, she thought, it-would eventually sell to Gianni.

Example (71) accordingly to this view, instantiates the structure in (72):
Focus is ruled out as Spec, K does not qualify as a suitable landing site for Focus movement, given that in general syntactic operations cannot take place between host and supplement. I’m taking for granted here that topicalization is not the same kind of movement operation as focus.23

As for the obligatoriness of topic on the left of the parenthetical, I propose the following explanation: The typical intonational contour – i.e. the comma intonation – can be correctly assigned only if the phrases appear on both sides of the K. Intuitively, a pause can only be realized in between phrases, hence topicalization is obligatory. This idea faces an obvious problem though, in that the whole clause might end up in topic position, as in the derivation of example (26), repeated here:

(73) I will leave tomorrow, John said yesterday. (74) John said yesterday [KP K [IP...]] (75) [KP [IP...], K [John said yesterday, [KP K ei]]]

The sentence in (73) is base-generated as in (74). The actual order is derived as in (75). In this case, therefore, we have to hypothesize that the empty category connected to the topicalized phrase is strong enough to satisfy the prosodic requirement I introduced here.24

Let me consider now the phenomena in (49) above, repeated here:

(76) Pensò: sarebbe partita domani.

She thought: She should leave tomorrow.

These facts concern the FID. I reproduce here also ex. (60), which is the relevant one for direct discourse:

(77) Maria disse: “Luigi spera che Gianni sposi Lucia.”

Maria said: “Luigi hopes that Gianni marries Lucia.”

In examples (76) and (77) the introducing predicate precedes the sentence and, in both cases it is not realized as a supplement. The intonation of (76) and (77) is very different from the one of the supplement/host structures considered above. Moreover, as already pointed out, in these cases a resumptive clitic is possible in the introducing predicate. Such a clitic is completely ungrammatical if the supplement is interpolated in the structure. Consider again ex. (51):

(78) Lo ricordò dopo uno sforzo di memoria anzi di ragionamento: doveva essere passata per quella via essendo giunta a quell’altra da casa sua. (Italo Svevo, La novella del buon vecchio e della bella fanciulla, ch.8)

She remembered it with an effort of memory, or better to say of reasoning: she should have passed through that street to reach that other one from her home.

Note also that the clitic is possible with direct discourse, in similar circumstance, i.e. when the introducing predicate precedes the sentence:

(79) Gianni lo disse molto chiaramente: “Domani sposerò Maria.”

Gianni it-said very clearly: “Tomorrow I will marry Maria.”

Analogously to the FID, in this case as well the supplement inside the sentence is incompatible with a clitic:

(80) *Domani, lo disse Gianni, sposerò Maria.25

Tomorrow, it-said Gianni, I will marry Maria.

(81) Domani, disse Gianni, sposerò Maria.

Tomorrow, said Gianni, I will marry Maria.

There is a clear contrast between the sentences with or without the clitic.

From these observations I concluded above that the structure cannot be the same in the two cases. I propose, therefore, that the structures in which the introducing predicate precedes the sentence instantiate Cinque’s (2008) structure in (30) above, repeated here:

(82) [HP CP [H CP]] (Cinque 2008, ex.59)

In other words, these are discourses and not instances of a host/supplement structure. Only in these cases is a resumptive clitic possible.
7. Summary and Further Issues

Let me summarize the main ideas of this work. Supplements introducing FID and Qu structures can be represented as KPs, where K is the syntactic realization of the pause, or, better to say, of the typical intonational contour of a supplement. The structure is hierarchical, so that no linearization issue arises. A KP has the function of resetting the context, i.e., the temporal (and spatial) coordinates in the left-most position of C are specified as those of somebody who is not the actual utterer.

Topics appear as Specs in the KP, either in the lower one, when on the right, or in the higher one, when on the left. Focus movement is disallowed because KPs are non-permeable to movement. At least one topic on the left of the KP is obligatory, in that a pause must occur in between constituents. The constructions with the extra-long pause instantiate Cinque’s (2008) structure for discourses, hence, they are not KPs, but discourses, where sentences are connected to each other by means of a head H.

There are several important issues that deserve further study. With respect to the internal structure of these supplements, the most obvious property is the inversion of the subject. Collins and Braningan (1997) analyzed quotative inversion phenomena in Minimalist terms, but further study is needed from the point of view of the present proposal, even if the result achieved by Collins and Braningan (1997) can be accommodated in the framework proposed here.

The other issue concerns the possibility of extending this proposal to other kinds of structures as well. I will point out here some questions that would be important to investigate.

The first one concerns whether the analysis proposed here could be extended to all sorts of left-peripheral topics. I proposed here that, when a non-embeddable supplement such as the introducing predicate of FID and Qu structures is present, at least one topic must precede the supplement. Left peripheral topics, even in absence of a supplement, are usually associated with the comma intonation. The question therefore is: Is a left-peripheral topic always in the Spec of a KP? In “normal” cases, the presence of a topic does not affect the value of the coordinates present in the left-most position of C – they refer to the speaker – hence, an empty K might be hypothesized in these cases. Notice that this view would comply with Selkirk’s (2005) observation, briefly discussed in sect. 3, that root sentences are comma phrases as well.

Topics, however, also appear in embedded clauses. Here I have only studied root KPs, i.e., non-embeddable supplements. The issue, therefore, would be to consider whether the present proposal can be extended to supplements appearing in subordinate clauses, hence to embedded topics, but also to embedded left-peripheral adverbs and embedded as-clauses, among the other possible parentheticals.26

With respect to this last point let me sketch a brief discussion, which, however, as the other points mentioned here, deserves further study. Consider the following examples, discussed in Potts (2002):

(83) Alan claimed that cryptography is a blast, as you mentioned.

(84) Alan claimed that, as you mentioned, cryptography is a blast.

Potts (2002) points out that (83) is ambiguous, in that the supplement can modify either the main or the subordinate clause, whereas (84) is not, in that only the subordinate clause can be modified. Potts (2002) explains this property by means of a theory based on right adjunction, which is incompatible with the approach outlined here. Hence, it is important to see whether my approach turns out to be adequate enough. According to my proposal, the reading in (83), under which the supplement has scope on the whole sentence, might be obtained by means of topicalization of the whole sentence in Spec,K, starting from (85) and deriving (86) with topicalization:

(85) [KP K [as-clause [KP [IP Alan claimed …]]]] >

(86) [KP [IP Alan claimed …] K [as-clause [KP K e]]]

The other reading of (83) and the only reading of (84), in which the supplement has scope only on the embedded clause, can be derived starting from the structure in (86), where the supplement is already embedded under the complementizer that:

(87) [IP Alan claimed [CP that [KP K [as-clause [KP K [IP cryptography is a blast]]]]]]
The derivation of (86) is straightforward, in that nothing changes. Whereas in the derivation of (85), the embedded IP topicalizes in Spec,K:

(88)  \[ \text{IP Alan claimed} \begin{array}{l}
\text{CP [CP that IP cryptography is a blast]} \\
\text{[as-clause} \\
\text{[KP Keil]} \end{array} \]

This move derives both meanings in the correct way. Note also, the coherently with what I proposed above, *as-supplements*, being embeddable, do not – and could not – change the coordinates of the sentence. Note moreover, that the take an IP, and not a CP, as their complements.

As I said above, further study is needed to see how far my proposal can be extended to other cases as well.

Notes

1. The term *supplement* is often taken to be more general than the term *parenthetical*. Here I will not draw a distinction and use the two terms indifferently. I will also use the term *introducing predicates* for referring to these two supplements.
2. Note however that, as pointed out by Dehé and Kavalova (2007) in spoken language, there is no one-to-one correspondence between the prosodic and the syntactic properties. In some cases the parenthetical can be a "prototypical" one, i.e., a case in which the prosodic edges correspond to the syntactic ones, but in other cases this does not happen and all possible options are apparently possible. For this reason, this work can be considered just as a starting point, based on the idealization that all the parentheticals – at least those connected to FID and Qu contexts – are prototypical ones. The syntactic solution proposed here might be in future work expanded on the basis of further considerations, accounting for the wide range of variation of actual speech.
3. I will not discuss here demonstratives, because their status is not immediately relevant to the present discussion.
4. In FID contexts in Italian the imperfect of the indicative is (obligatorily) used. The imperfect is in fact the verbal form used in fictional contexts, as for instance in *dreams*:
   (i) Gianni ha sognato che c’era un terremoto.
   Gianni dreamed that there was (IMPF) an earthquake
   Cf. the equivalent structure in English:
   (ii) John dreamed that Mary left.
   In English the past tense is used in fictional contexts and counterfactuals. My proposal is that the English past tense is both a past form and an imperfect. Hence, in these contexts a non-indexical verbal form is used, both in Italian and English. Therefore there is no question about the shifting of tenses. For a discussion, see Giorgi and Pianesi (1997) and Giorgi (2010). For a different view, cf. also Schlenker (2003, 2004), Sharvit (2004).
5. For a similar notion, see Guéron (2007) and her notion of *priority of the speaker*.
7. In literary texts the parenthetical is not actually given in every single sentence; for instance it does not appear in (17). It is, however, retrieved from the present context.
9. For instance, Ports (2002, 2005) proposes right-adjunction to account for the syntactic properties of *as-supplements*.
10. There is an extensive literature on the topic. Even if certain syntactic relations with the host might exist, parentheticals do not have the same behavior with respect to syntactic operations of arguments and not even of adjuncts. Cf., for instance, Haegeman, (2009), Espinal (1991), Peterson (1999). De Vries (2007) argues that anaphoric relations between the supplement and host are indeed possible.
11. Note that the structure proposed here is reminiscent, in a very different framework, of Ross’ (1973) proposal, according to which the basic position of the parenthetical is actually that of the main clause.
12. Moreover no object *pro* could exist in these cases. Cf. for a discussion of the distribution of an empty object Rizzi (1986).
13. It is an interesting fact that, though a literary style, native speaker have clear intuition about what is an acceptable FID context and what cannot be. This means that, as expected under the generative hypothesis, Universal Grammar always rules language, event in its artistic expressions.
14. As often noted in the literature – see also Giorgi (2010, ch. 5) – native speakers do have quite consistent intuitions about what counts as a well-formed FID sentence and what doesn’t.
15. This, on the contrary, is certainly possible in a text made of a sequence of sentences; nothing prevents that in the same text one sentence is interpreted with respect to the speaker, or the writer, and another one with respect to the internal character. Perhaps the ban toward a change of anchor inside the same sentence might be taken to be a syntactic version of the ban against "monsters", proposed by Kaplan (1989) and discussed by Schlenker (2003).
16. Schlenker in his work actually argues in favor of the existence of monsters, but it seems to me also possible to formulate a condition, as the one just sketched, operating at the level of sentence grammar. The issue is, however, quite complex and deserves further study.
17. The sentence can trivially be attributed to the internal source, if the interpretation of *tomorrow* can be coherent both with the speaker’s temporal location and the internal source’s one. This case, however, is irrelevant to the end of the present discussion.
18. The prosodic difference should be exactly measured and no data are available so far. The intuition is nevertheless clear.
19. Given the differences between Italian and English concerning the distribution of topic and focus, here I will only consider the properties of Italian. The literature on topicalized phrases in Italian is fairly rich. See among the others Benincà and Poletto (2004) and Frascarelli and Hinterhöld (2007) and references cited there.
19 I am not considering here the questions related to what kind of topic can precede or follow, and I am assuming, for simplicity, that the distribution is free. Note that even if this were not the case, nothing would immediately follow for the analysis proposed here.

20 In providing the judgment, a native speaker must make sure that the first phrase is actually associated to a contrastive focus intonation. This is important because the sentence obviously becomes perfectly acceptable if both phrases are associated with a topic intonation.

21 Judgments vary among speakers. The level of grammaticality assigned to (36)-(39) corresponds to my variety and to the one of several speakers I interviewed. Nevertheless, the variance in this domain is an interesting issue and deserves further investigation. According to Rizzi’s (1997, 2002) Split-C hypothesis, topic recursion applies both to the right and to the left of the focalized phrase. However, to my ear, this is not exactly the case.

22 Judgments vary from speaker to speaker and even from sentence to sentence. I can’t offer an explanation for this variation, but can only stress that the difference between topic and focus is still clear. Topic is always acceptable, whereas focus is often at least dubious. There might be however a possibility to interpret both with FID and QCT, that is if we attribute the Focus to the internal source, which might improve the general grammaticality feeling. In other words, a sentence such as (69) in the text, can be taken to correspond to the following discourse:

(i) Gianni disse: "LIBRI Luigi non regolerà più a Mari (non fori).
Glioni said: "BOOKS Luigi will not give to Maria (not flowers)"

23 See fn 10 above. In general, positions inside the suppletive do not qualify as targets for movement operations. As for a discussion of topocization, Clicte Left Dislocation and focus movement, see Cinque (1977, 1990).

24 I am not addressing here the issue concerning the nature of the empty category associated with topocization. Again, I refer the reader to Cinque (1990).

25 Note that the reverse order of verb and subject in the suppletive gives rise to an ungrammatical sentence as well:

(i) "Domeni, Gianni lo disse, sposero Maria.
Tomorrow, Gianni said, I will marry Maria.

26 As pointed out above in the text, there many different kinds of parentheticals, but the ones mentioned here represent the most obvious extensions of the present proposal.

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On Force vs. Case and Fin vs. Num

1. Introduction

In the last three decades, the DP-hypothesis has opened up the possibility of extending the projection of Nominal Expressions (henceforth NEs) based on analogies with clauses. But there is no unanimity as to what projection in the clause DP corresponds to. Alexiadou, Haegeman and Stavrou (2007: 53–156), reviewing the literature of the last 20 years, point out the following two apparently alternative considerations. From the observation that possessors have the grammatical function of “subjects” of the NEs, it can be argued that DP is parallel to IP, especially in view of the fact that in some languages, possessors (both genitive DPs or possessive adjectives/pronouns) are in complementary distribution with determiners. On the other hand, from the observation that NEs in argument positions need an overt determiner in some languages (including all Romance languages), it can be concluded that DP is parallel to an embedded CP, which is usually filled by an overt complementizer. In this paper, I will support the latter hypothesis, arguing that a split DP is mutatis mutandis a perfect parallel to Rizzi’s split CP.

We will see that there are reasons to assume a portion of structure in NEs that provides the landing site of A-bar movements (triggered by discourse pragmatic features), parallel to the Top-Foc system in CP, and that this must be distinguished from the portion of structure which provides the landing site for A-movements (triggered by the necessity to satisfy an EPP feature, as is the case for possessives which are the “subjects” of the nominal expression) parallel to IP.

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