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Some perspectives on non-standard constituent focus

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ABSTRACTS

The main goal of this thesis is to deepen the little-explored field of non-constituent focus. Prosodical, syntactical, and semantical approaches proper of the constituent focus research within the framework of generative-transformational grammar are applied to non-standard focused constituents. Presenting examples mainly from English and Italian, macro-categories and strategies which compose and model the information structure, including topic, givenness and the packaging of information are overviewed. Furthermore, aspects of constituent focus, such as typological differentiation and accounts on how focus is encoded into language are examined. It is argued that formal semantic can provide a background in which focus is viewed as a unified phenomenon and crosslinguistic variation is derived from language-specific properties. In this framework, focused non-standard constituents, detected in Germanic languages, provide evidence in favour of a uniform encoding of focus at the semantic level. Differently from English, Italian owns peculiar properties, which pertain to the syntax-prosody interface, that prevent discontinuous/multiple foci and nested foci. In this regard, an insight of Italian phenomena and structures in which focus plays a crucial role, such as coordinative and elliptical structure, verb second and the composition of sentence's peripheries follows.

Il principale scopo di questa tesi è approfondire il campo poco esplorato del focus dei non costituenti. All'interno del quadro fornito dalla grammatica generativo-trasformatzionale, si applicano al focus dei non costituenti le teorie sviluppate nello studio del focus dei costituenti e che riguardano la prosodia, la sintassi e la semantica.

Proponendo esempi principalmente dall'inglese e dall'italiano, vengono analizzate quelle macrocategorie e strategie, tra cui topic, givenness e impacchettamento delle informazioni, che compongono e modellano la struttura informativa della frase. Successivamente vengono analizzati aspetti del focus dei costituenti, come la differenziazione tipologica e le teorie riguardo al modo in cui il focus viene codificato nella lingua. Quindi, si argomenta la posizione secondo cui la semantica formale fornisce un'analisi unitaria del focus e comune a tutte le lingue; da qui, le differenze interlinguistiche di questo fenomeno sono dovute a proprietà appartenenti alla lingua presa in esame. Eventi, osservabili nelle lingue germaniche, in cui il focus riguarda costituenti non-standard, forniscono una prova a favore dell'unità a livello semantico del fenomeno in questione. A differenza dell'inglese, l'italiano presenta peculiari proprietà, riguardanti l'interfaccia sintassi-prosodia, che non permettono il verificarsi di foci discontinui o multipli e innestati. A questo riguardo, si evidenziano fenomeni e strutture dell'italiano in cui il focus gioca un ruolo cruciale, come in strutture coordinative ed ellittiche, V2 e la composizione delle periferie della frase.

1 | INTRODUCTION

Focus represents one of the most puzzling issue in linguistic theorizations. Every language develops peculiar focusing strategies that can be more or less evident and can affect portions of sentence, from words to the whole structure of an utterance. Focus poses several problems in the construction of meaning, since it can both set boundaries or enrichments to the final comprehension and it can be affected by the presence of other lexical elements, as operators, or by special word orders. Hence, dealing with focus and its properties means addressing a problem that is intertwined with several fields of linguistics.

Focus is inserted within the so-called Information Structure, whose represents one of its primitives. Information Structure, in its turn, constitutes an architecture through which we organize information and studies that pertain this structure say something about both the storage and the transmission of data between speaker and hearer. Focus itself plays a fundamental role in defining meaning in relation to context. Research about focus regards majorly focusing strategies of constituents. Focus typology, prosodic pattern, its position in sentence's peripheries, movements, and the encoding within syntax as a feature: almost all information provided by the previous literature pertains focus as a phenomenon that regards constituents.

The main aim of this thesis, thus, is twofold. Firstly, I want to shed light on the little explored field of non-standard constituent focus, highlighting differences between English and Italian. Basing on the existing literature about non-constituent focus, four

categories of non-standard constituents, which can bear prominence, are identified in chapter 4: focus below-the-word level, i.e., focused morphemes, contiguous sequences of focused items that cannot be considered as a proper constituent, discontinuous focus, and multiple foci.

Secondarily, I argue in favour of a unified account of focus at a level which pertains to formal semantics. Such account is justified by means of a higher-order logic level in which works a partition between the focused item(s) and the background information. From this point of view, if it is possible to account for a unified structure of meaning, some problems arise trying to challenge crosslinguistic variation.

During the elaboration of this thesis, I tried to select literature in order to highlight some general issues which rise in dealing with focus of constituents to give at least an overview of the current status of the debate. Following the main lines proposed in the research, I compared, then, various studies relevant to non-constituent focus by applying (or trying to apply) to them the same methodology of analysis. In this regard, the main problem I found is that non-constituent focus literature is far more limited than the one of constituents.

Chapter 2 consists of a general overview on Information Structure. After clarifying the main principles of the Minimalist Program, the principal features of Information Structure are analysed, that is focus, givenness, topic and contrastiveness. Contrastiveness is treated more as a discourse-related property that permeates other features of Information Structure rather than a proper primitive. Approaches to Information Structural packaging are, further on, presented, providing tools exploited in the analysis of focus.

In chapter 3, typology of constituent focus is examined, presenting examples both from English and Italian. Accounts on focus are overviewed in the second part of the chapter, both prosody-based and syntax-based accounts. The last section is dedicated to two theories on focus interpretation, that is Alternative Semantics and Structured Meanings. It is noted that all typological differences tend to flatten out from the point of view provided by formal semantics.

Non-constituent focus phenomena and related accounts are analysed in chapter 4, where are identified four kinds of non-standard constituent that can bear prominence, namely morphemes, a sequence of contiguous focused items, discontinuous focus, and

multiple foci. Considering data reported, some notions, such as focus projection rules, markedness, and prominence, which are all related to constituent focus analysis, are reconsidered.

While chapter 4 brings evidence largely from English data, chapter 5 is dedicated to Italian. We try to figure out, as better as possible, whether in Italian non-constituent focus occurs, and we conclude with a comparison with Modern Eastern Armenian, arguing that a unification of focus is desirable at a formal semantics level in accordance with the T-model of grammar.

2 | INFORMATION STRUCTURE

The notion of Information Structure (IS) and packaging has been analysed by several scholars, such as Chomsky (1995), Halliday (1967), Jackendoff (1972), Chafe (1976), Rooth (1992), Vallduvì (1992), Krifka (2006), Molnàr and Winkler (2005), Schwabe and Winkler (2007), Büring (2012, 2013) inter alia.

The variety of phenomena and notions it comprehends makes IS a category analysable under several points of view, within which syntactic, phonologic, semantic, and pragmatic issues are intersected. Generally, research accounts for IS starting from specific areas, which can be resumed as follows (Schwabe & Winkler, 2007, pp. 4-5):

- IS and grammar: it deals with the interaction between syntax, semantics, phonology and IS, how notions of IS exist as relevant pieces of evidence in grammar and how they work together.
- IS and pragmatics: it is about the operation's conditions and the relation between the grammatic-driven meaning and the context-driven meaning, and how extralinguistic factors are encoded in the utterance.
- IS and typology: it explores the IS constraints, and it tries to define how and in which degree they operate universally.

At the same time, as shown in Schwabe and Winkler (2007), two are the main approaches adopted in studies regarding IS:

- a) The formal approach:

- i. Feature-based account,
 - ii. Prosody-based account.
- b) The interpretative approach, or semantics-pragmatics interface, which comprises:
 - i. Semantic-based account,
 - ii. Pragmatic-based account.

Focus represents, among others, the most interesting field of Information Structure to analyse due to its involvement in bearing the most informative part of the sentence. Every proposal of analyses, taking a certain domain of IS as its primary basis, does not fail to reserve a unique examination to focus-related phenomena.

On one hand, the formal approach, firstly developed by Chomsky (1971) and Jackendoff (1972), gives rise to the *focus feature* as a part of the linguistic system, namely a syntactic feature, and it triggers the movement of the focus marked phrase to the specifier position of the corresponding functional focus head, which is projected in the left-peripheral domain of the sentence. The realization of this feature take shape into prominence at the Phonological Form and into semantic representation at the Logical Form level. It is worth precising that, according to Jackendoff (1972), the rising of a formal [+Focus] feature does not have a direct correlation with the assignment of accent, since the two interfaces cannot communicate with each other. Therefore, the accent is located to the constituent which carries the f-feature only due to phonological rules, according with the *Nuclear Stress Rule*¹.

On the other hand, prosody-based accounts, starting with Halliday (1967), give relevance not only to grammatical functions, but to communicative and phonological elements also. As Schwabe and Winkler (2007, p. 12) say in the best way, “they interpret syntactically and phonologically marked focus or topic constituents, modelling their sentence-internal and sentence-external function”. Thus, it is argued that IS can be driven not only by purely formal matters, but also by pragmatic motivations between speaker and hearer which turn out to play a key role in the modification of the sentence, namely how the sentence is uttered. However, non-feature driven accounts legitimate themselves by pragmatic and prosodic matters, which result to be tangled together. From here,

¹ Cf. chapter 3

prosodic theories, as *Null Theory* (Cinque 1993) and *Focus Prominence Rule* (Zubizarreta, 1998), emerge².

Interpretative approaches present a one-to-one mapping between grammatically determined and pragmatically determined meaning of a sentence. The architectural structuring of a sentence comprehends elements, as topic and focus, which are interpreted at both syntactical and phonological levels in association to their respective internal and external functions. Depending on the field taken firstly in consideration, two approaches are defined. On one hand, semantic-based approaches consider in the first place the linguistic structure (sentence-internal matters), while, on the other hand, pragmatic-based approaches take functional and communicative aspects as their starting point (sentence-external matters). Within the former approach, works by Jackendoff (1972), Selkirk (1986; 1995), Schwarzschild (1999), Gussenhoven (1999), Büring (2006; 2013), and theories such as *Alternative Semantics* (Rooth, 1992) and *Structured Meaning* (von Stechow, 1991; Krifka, 1991) arise.

In general, the research in the information structural field contributes with new and more specific information about the information structural descriptive system itself and, more widely, about the formal grammar. Furthermore, interactions between interfaces, and more specifically between purely linguistic issues and pragmatics, are put under examination via typological analysis through which theoretical generalizations are possible. Clearly, the founding idea behind the notional development of information structure is that speakers always present information in a structured and congruent way.

The packaging of information within the IS makes up for communicative needs of the counterparts. Firstly, the speaker formulates hypotheses about the knowledge and the mental world of the listener, and on the other hand, who listen receive the instructions on how to decode the received information through the utterance itself.

- (1) John likes **SUE**.
- (2) John **LIKES** Sue.

² Cf. chapter 3

The sentences (1) and (2) are equivalent in their truth-conditions, but they do not share the same meaning. Clearly, in the first one it is supposed that the hearer knows John and that John likes someone, therefore here is highlighted the person who John likes. Contrarily, in the sentence number (2) it is clarified the nature of the relation between John and Mary or, better, John's opinion about Mary. Hence, despite (1) and (2) have the same SVO word order, the perceived meaning is different.

As far as information exchange concerns, it is useful to introduce the notion of Common Ground (CG) as a mutually and continuously manipulated background of information (Krifka, 2006). Thus, it is possible to distinguish the input CG and the output CG. The former includes speaker's set of notions and hypotheses and beliefs about the context that are assumed to be true and, for this reason, could be used in the exchange. The latter represents the final selection from the previously available possibilities, and it also represents the proposed change in the CG. Hence, if the proposed sentence from the speaker will be accepted as true by the addressee, it will produce the modification in the CG, and so on endlessly.

2.1 | MINIMALIST THEORETICAL FRAMEWORK

In four essays that appear within *the Minimalist Program* (1995), Chomsky develops a linguistic theory that attempt to converge linguistics into cognitive science studies, namely how mind can deal with sound and meaning. He considers natural language as a computational system that works following general rules, as a Turing machine does. He theorizes the existence of two language-external systems:

- the *conceptual-intentional* system, which deals with semantic and pragmatics issues,
- the *articulatory-perceptual* system, which involves sound and meaning matters.

The faculty of language, also called *Computational System* (C_{HL}), interact with both systems through two other distinct interfaces, respectively via *Logical Form* (LF) and via *Phonetical Form* (PF), which substitute the previously theorized *D-Structure* and *S-Structure*. Furthermore, LF and PF are sharply separated and cannot communicate with each other.

Phonetical Form and Logical Form are, thus, inscribed in the *T-model* of grammar where a *Numeration* (N) of lexical items is driven via Computational System to the moment of the junction towards the two interfaces, the so-called *Spell-Out*. In the moment of Spell-Out, every redundant or irrelevant item is eliminated in order to have a well-formed sentence, but not yet felicitous. Both interface levels, then, are responsible merely for the setting of lexical items which are already part of the Numeration, and can, at least, resettle lexical properties, but they can add nothing else, according with the *Inclusiveness Condition*.

Since sound-meaning connection is told to be a derivation, there are, indeed, two distinct and independent representations for the same derivation, the one proper of PF and the other of LF. To reach the felicitousness status, both derivations from PF and LF must satisfy the *Full Interpretation* (FI) and converge in one. If FI is achieved only at one interface level of the two, the derivation crashes. The Minimalist Program highlights also the importance of the *Economy Principle* to which every language is subjected. According to this theory, languages favour strategies as simple as possible in terms of relations and movement avoiding superfluous elements.

As far as items in Numeration concerns, they enclose formal, semantic and phonological feature and establish primary thematic and secondary syntactic relations. Relying on these lexical features, items are assembled through syntactic operations, such as *Merge*, *Move* and *Agree*, that work at different structure levels. Hence, the operation *Move* can either determine visible phenomena in *overt syntax* if the operation takes place before the Spell-Out or 'hidden' phenomena in *covert syntax* if takes place after the Spell-Out. While Merge puts together items of N, Move causes cross-linguistic variation in word due to the fact that it is in charge of building syntactic relations aligning needs of both the interfaces. The Agree operation has been integrated in the Minimalist Theory through further speculation (Chomsky, *Minimalist inquiries: the framework*, 2000). It typically

involves the agreement between lexical features, e.g. gender or person, in order to ensure syntactic coherence.

2.2 | INFORMATION STRUCTURAL FEATURES

2.2.1 | FOCUS

Focus and the matters of focalization are widely studied phenomena and they are tangled with other features of information structure and are examined from various linguistic perspective, such as semantics, phonology, morphology, syntax, and pragmatics. We remember among others: Jackendoff (1972), Chomsky (1971, 1976, 1995), Vallduvì (1992), Rooth (1992), Cinque (1993), Reinhart (1995), Rizzi (1997, 2013), Zubizarreta (1998), Nespòr and Guasti (2002), Molnàr and Winkler (2005), Krifka (2006), Büring (2011, 2013), Samek-Lodovici (2015) inter alia.

Chomsky (1971) defines focus as that constituent of the sentence that bears new information, while the other part is *presupposed*, since it is already present in the shared CG of participants. Within the chomskyan model of grammar no interaction between PF and LF is possible, and these interfaces cannot add anything to lexical items conveyed by syntax, i.e. computational system. This assumption is exactly what is challenged by the studies on focus, that call for a more flexible and permeable model of grammar in which pragmatics and prosody also play a prominent role (Brunetti, 2004), (Winkler, 2005). Following this view, any analysis of focus that tries to abstract away from matters of context fails to give at least a general overview on the complexity of this phenomenon.

Then, as far as interpretation concerns, focus is supposed to evoke a set of alternatives. As Jackendoff (1972) affirms that focus is “the information in the sentence that is assumed by the speaker not to be shared by him and the hearer”; and it “indicates the presence of alternatives that are relevant for the interpretation of linguistic

expressions”, as it appears in Rooth (1992). Evidently, both definitions do not say anything about how markedness can be exploited.

Focus can also vehicle a contrastive or corrective interpretation. Krifka, in this respect, proposes a more accurate version of Rooth’s definition:

A property F of an expression α is a Focus property iff F signals
(a) that alternatives of (parts of) the expression α or
(b) alternatives of the denotation of (parts of) α
are relevant for the interpretation of α .

(Krifka, 2006)

Here, (a) is called to be the “expression focus”, which is mainly used in situation where the speaker corrects information in the background, and it includes aspects such as the selection of words and their pronunciation. Furthermore, it is useful for further explanations to note that expression focus typically occurs in-situ and can involve a portion of word.

- (3) a: They live in BERlin.
b: They live in [BerLIN]_F!

(Krifka & Musan, 2012, pp. 8, (12))

In this example the clauses have the same structure, but they differ only in the focalized morphemes of the same word. Thus, the variation of the accent defines two salient alternatives {BERlin, BerLIN}, where the second focalized element is selected to be the (proposed) replacement of the first option.

The “denotation focus”, the case (b), considers the number of alternative meanings of $||\alpha||$ in an expression α . Every alternative constituent of a linguistic expression must present the same ontological characteristics in order to be a suitable alternative.

Taking advantage of tools proposed in the Common Ground theory (Krifka & Musan, 2012), partially viewed before, it is now possible a further consideration on the notion of focus via CG content/management. On one hand, CG management binds a

relation with the interlocutors' intentions or the so-called pragmatic use of focus. Given an answer to a *wh*-question, we must consider the portion of this answer that responds to the *wh*-part. This portion represents the addition of new information to the CG content but also a set of alternatives which the addressee can select as a response. Clearly, such process involves the CG management because the question itself narrows in advantage the possibilities of answer and drives the way in which the CG should be enlarged. Pragmatic uses of focus comprehends "information" focus, focus to correct/confirm, focus that parallels two or more alternatives, focus that highlights a delimitation of the sentence. On the other hand, the CG content is linked with semantic uses of focus. Uses of particles such as *only*, *even* and *also* can affect the information: these particles, since they are sensitive to focus, module the input CG, when the information still represents a set of possibilities in speaker's mind and modify the conditions in which the sentence must be decoded.

As Molnàr and Winkler (2005) argue, the detailed typological research of focus-related phenomena, especially in languages which dedicate to focus a specific position in the sentence, enables a more accurate definition of focus amid the IS framework. Thus, the description of focus as a complex phenomenon may be aware of at least four architectural aspects (Molnàr & Winkler, 2005): the pragmatic level, the syntactic level, the phonological interpretation, and the semantic interpretation.

The connection between focus and pragmatics amid the Information Structure is clear. As explained by Krifka (2006), focus plays a crucial role in the modification of CG content: the speaker chose to focalize the preferred content, in the CG output, in order to propose a modification in the CG and, hence, in the truth-conditions. Of course, also the way in which a portion of a sentence is marked plays a crucial role in the meaning construction³ (Krifka & Musan, 2012).

- (4) a: Where does John like to go?
b: John likes going to the [cinema]_F.

³ Chapter 3

Here, the word *cinema* is the proper answer to the question and conveys a new information to the conversation modifying the Common Ground. Furthermore, with respect to prosodic matters, focus is always associated to the element which has the prominent stress in the sentence.

(5) John [likes]_F going to the cinema.

The sentence (5) seems to be identical to the answer in (4b) above, but, as we can observe, the main accent occurs on the word *likes* instead of *cinema*. While in (4b) the speaker wants to highlight the fact that John likes going to the cinema and not to the park or somewhere else, in (5) the speaker poses the attention on the quality of the relation between John and the cinema, namely he *likes* and not *hates* going there. Thus, facing a shift in the position of the accent, it may be noted a shift in the meaning as well.

At the syntactic level, focus affects word order since the strategies of marking focus has often repercussions on the position of constituents. In Italian as in English, focus feature triggers various kinds of movement depending on the language considered and the prosodic aim that the speaker wants to achieve (Brunetti, 2004) (Samek-Lodovici, 2015). One example from Italian might be:

(6) a: Dove piace andare a Giovanni?
 where likes.3SG to-go John.DAT
 ‘Where does John likes to go?’
 b: [Al cinema]_F gli piace andare.
 at cinema to-him.DAT likes.3SG to go
 ‘at the cinema, he likes to go’

In (6b), the constituent *al cinema* is focused and then it can move from a standard post-verbal position to a higher preverbal one.

Furthermore, matters of phonology have in meaning constructions a prominent role. On the one hand, pitch accents are used to identify salient aspects of information since they vehicle contrastiveness both in topic and focus. On the other hand, therefore, the absence of intonation can invalidate the whole sentence (Reich, 2012).

2.2.2| GIVENNESS

The primary contributions about Givenness come from Halliday (1967) and Chafe (1976) among others. Chafe defines Givenness not simply as a piece of “old” information, but:

That knowledge which the speaker assumes to be in the consciousness⁴ of the addressee at the time of the utterance.

(Chafe, 1976, p. 28)

Within the so-called “new” information, there are some items that only apparently bring an enlargement of the knowledge. Our mind stores information that can remain in quiescence for a long time and activated when it is necessary. For example:

(7) I ate the cake this morning.

In the sentence (7), *the cake* should be the piece of new information, but presumably the existence of *the cake* as a specific entity (this cake and not another one) is already known by the participants and here it is just brought back to hearer’s mind. For this reason, as Chafe (1976) indicates, it would be better accurate the employment of terms such as “already activated” and “newly activated”.

Another definition of Givenness, which says something about how information is stored, is provided by Krifka:

A feature X of an expression α is a Givenness feature if X indicates whether the denotation of α is present in the CG or not, and/or indicates the degree to which it is present in the immediate CG.

⁴ No definition of the term “consciousness” is provided by Chafe, but just a number of properties of this feature.

Givenness regards the speaker and puts the accent on the status of availability of the information itself. Thus, it is possible to argue that the speaker has several information available in the CG which could be salient in different degrees within the context. Then, assuming that this information is effectively shared with the addressee, it could be straightforwardly employed in the conversation. Of course, the theory of Givenness foresees a wide range of information's statuses which are not limited to the dichotomy "given"/"new", but it also distinguishes the case of fallacy of memory.

As regards to given expression, prosody factors are involved. Typically, given data do not need to be highlighted in the sentence, therefore they are pronounced with a lower pitch accent, a powerless stress and pronominalization (Chafe, 1976 and Krifka 2015). Furthermore, the negotiation between the participants on what is "given" can happen either within linguistic context, through proper linguistic factors, or extralinguistic context, with direct reference to the external environment/situation.

Two kinds of linguistic devices are involved in givenness constructions: the first one is represented by the set of anaphoric expressions. As an example:

- (8) a: Hai fatto i compiti?
have.2SG done the homeworks
'have you done the homeworks?'
- b: Sì, li ho fatti.
yes them-CL have.1SG done
'yes, I do.'

The lexical specification of the particle itself bears givenness feature. Moreover, the second group includes other phonetical and syntactical devices, as deaccentuation and deletion, which will be discussed further on. In particular, anaphoric devices, such as clitics, demonstrative and personal pronouns, definite and indefinite articles, are responsible for marking givenness status. The speaker constructs meaning according to the hierarchy and disposition of these items, which are salient elements for the interpretation, amid the sentence.

2.2.3| TOPIC

Another information structural feature is topic, or “theme” as in Halliday (1967), which is meant to be that part of the sentence, about which the other part tells something about. It seems to be a mainly cognitive operation, where the speaker splits a sentence into two units: the first highlighted one is the topic, and the second one is the “comment”, which says something about the topic. Truthfully, we cannot talk about a complete *split* through which we can identify two distinct components, but we can figure out a sort of *continuum* from a maximum to a minimum degree of novelty of the information, or “communicative dynamism”. As in Vallduvì (1992, p. 28), “it could be said that information is concentrated on a subpart of the sentence, while the remainder is licensed only as an anchoring vehicular frame for that informative part to guarantee an optimal entry into the hearer’s knowledge-store”.

Several uses of term ‘topic’ has been adopted, bringing, of course, many discrepancies. Chafe (1976) argues that “topic is simply a focus of contrast that has for some reason been placed in an unusual position at the beginning of a sentence”. Truthfully, Chafe’s notion of “subject”, or “adding-knowledge-about” hypothesis, seems to have a more similar fashion to the most shared definition of topic. Furthermore, Chomsky (1965) defines “the Topic-of a sentence as the leftmost NP immediately dominated by S in the surface structure and the Comment-of the sentence as the rest of the string”⁵, posing the attention also to its syntactic role.

‘Aboutness’ is called to be the pragmatic character of topic, namely the participants’ necessity to identify given and new information in order to run the communication. The notion of ‘aboutness topic’ has been defined by Gundel (1988) as follow:

⁵ Chomsky, 1965 in Molnàr and Winkler (2005).

“an entity, E, is the topic of a sentence, S, iff in using S the speaker intends to increase the addressee’s knowledge about, request information about, or otherwise get the addressee to act with respect to E”

(Vallduvì, *The Informational Component*, 1992, p. 31)

More recently, Krifka (2015) argue that it represents somehow the translation of cognitive aspects into linguistic realizations, and this is the reason why it is also called “psychological subject” or “psychological predicate”. Following this path, information gravitates and organizes itself around topic as the “core” of the sentence. The definition of topic proposed in Krifka and Musan (2012) is the following:

The topic constituent identifies the entity or set of entities under which the information expressed in the comment constituent should be stored in the CG content.

(Krifka & Musan, 2012, p. 28)

Hence, the structure of the utterance gives indications to the hearer on how and with which importance to store the so-called “new” information in the CG content.

There can be more than one topic in the same sentence, but they are always presupposed and referential DPs with discursal antecedent, such as personal, locative and temporal pronouns.

Topic can be subjected also to markedness. The phenomenon through which topic is marked is called ‘topicalization’. The linguistic tools for marking topics can include various strategies at different linguistic levels, such as deaccentuation, clitic pronouns or movements to the leftmost part of the sentence.

Since not every given information is a topic and not every topic is topicalized, the main problem remains the identification of topic itself. However, tests of topichood listed in Vallduvì (1992) fail to identify those kinds of topic for which they have not been thought for. Following Frascarelli and Hinterhölzl (2007), three types of topics can be identified:

- *Aboutness topic* is the cognitive subject, namely what the sentence is about. The topic constituent selects the CG field under which new information held by the comment should be stored (Winkler, 2012).
- *Contrastive topic*: as contrastiveness always does, it identifies a set of alternatives. It does not affect neither topic constituent nor focus, since contrastive topic and focus can co-occur⁶.
- *Familiar topic*: regards information that are already stored in the CG or easily available, in the sense of Chafe (1976), which are non-prominently marked with various strategies, such as destressing and pronominalization.

Concerning contrastive topic, it happens to overlap Topic/Comment and Focus/Background relations in those cases of topic/focus co-occurrence.

(9) a: What are your pets doing?

b: [My [CAT]_{Focus}] _{Topic} is [SLEEpIng]_{Focus} and [my [DOG]_{Focus}] _{Topic} is [EATIng]_{Focus}.

In the sentence (9), the answer (9b) presents an example of contrastive topic. While contrastive topic does not form an information-packaging feature on its own, it makes up for strategic reasons in the CG management. Moreover, on one hand focus indicates the presence of a set of alternatives (in the first clause, “cat” and not “dog” is sleeping) and, in this sense, produce a modification in the CG content. Topic, on the other hand, involves CG management because it bears purely pragmatic reasons selecting different degree of salience.

⁶ In Féry (2007) and Winkler (2012), the category of ‘contrastive topic’ is used as an umbrella term under which is possible to lead back various kinds of topics such as aboutness topic, frame-setting topic, implicational and partial topic. They are found to share with the main category a different degree of contrastiveness.

2.2.4| CONTRASTIVENESS

Contrast seems to be a derived notion linked to focus and topic features, instead of a proper primitive of IS (Rooth, 1992; Vallduvì, 1992). It results to be a term which encompasses a multiplicity of different IS features, but it more likely conveys the idea of the existence of a set of possibilities. This notion has been addressed by Chafe (1976) among others. It involves three factors:

1. the awareness, namely the background knowledge,
2. the set of alternatives
3. and the factual selection of the correct element.

While the first two involve pragmatic and syntagmatic skills, it is possible to say that the third factor is linked with the assignment of the accent, which is realized typically with a higher pitch and a stronger stress. However, from a theoretical point of view those are the elements which also characterize the focalization, as the addition of new information.

The most adopted view targets contrast as a feature of topic and focus, but it is clearly not an independent phenomenon. Further on, we will view that several typological discriminations have been adopted on the basis of contrastiveness, but they seem to be more discourse-bounded differentiations, instead of peculiarities led by a syntactic notion of focus (Brunetti, 2004). Of course, contrast affects in some way both topic and focus, but the linguistic nature of this relation is still unclear.

2.3| INFORMATION STRUCTURAL PACKAGING

The term *packaging* in reference to information structural issues has been used primarily by Chafe (1976), who played a role for an early shaping of this issue. With his words:

[The IS packaging has] to do primarily with how the message is sent and only secondarily with the message itself, just as the packaging of toothpaste can affect sales in partial independence of the quality of the tooth paste inside.

(Chafe, 1976, p. 28)

He identifies some features which are proper of the nouns that are involved in the packaging of information (givenness, contrastiveness, definiteness, subject and topic) and he claims for two kinds of considerations. He calls the first one the *syntactic consideration* with which he refers to grammatical functions established in the surface structure; with the second one, the *cognitive consideration*, he brings the idea of a further and more uncertain level of analyses tied to mental functions. As Vallduvi (1992) asserts, Chafe's definition of information packaging comprehends a broader set of notions, e.g., contrast, empathy, and his notion of "subjecthood"⁷, being too vague.

The information packaging seems to be a buffering space between context and hearer's cognition. Vallduvi (1992) gives a definition of IS packaging which focuses on addressee's decoding strategies of information in entry:

A small set of instructions with which the hearer is instructed by the speaker to retrieve the information carried by the sentence and enter it into her/his knowledge-store.

(Vallduvi, The Informational Component, 1992, p. 53)

He repropose the metaphor that views participants' mind, or so-called knowledge-store, as a file archive where new elements are added in the form of files and the pre-existing ones are updated. In this theory, the modification of hearer's background is supposed to be triggered by the presence of a referential NP, which allows the creation or the recovery of a file. Information packaging, thus, is charged for the role of making the information

⁷ Namely, they do not regard only instructions for the hearer, but evoke speaker's attitude towards the events.

intelligible to the hearer and increasing the efficiency of the communication itself, e.g., avoiding redundancy. Hence, aiming to a felicitous information exchange, the notion of focus, as the newly introduced data, is the most significant element amid theoretical studies on information packaging.

The organization of information, hence, takes shape through different devices which act both at LF and PF levels. Such devices model the surface realization of sentences at the two interfaces in order to ease the decoding of data between speaker and hearer. Thus, surface morphosyntactic and phonological devices are affected and shaped by discourse-related needs and deep syntactic properties of a specific language. Following Vallduvì (1992), information packaging includes operations that are not structurally motivated and represent a shift from the 'canonical' to a so-called 'unconventional' behaviour of a language. This means that part of the final meaning of an utterance is vehicled by how the information has been packed by the speaker. Moreover, as we will see further on, the final meaning is built in respect of the principle of compositionality at a logico-semantic layer.

Information structural packaging affects grammar at different, but interrelated, levels, such as:

- at phonological level, through intonation,
- at morphological level, through top/foc-markers,
- at syntactic level, through the word order modification,
- finally, at interpretational level, where exists a one-to-one relation among syntactic structure and interpretational feature.

Here, we will focus on some syntactic and prosodical issues of information structure by occasionally anticipating focus-related notions and approaches, which will be deepened later on.

2.3.1| SYNTACTIC DEVICES

Which is the nature of the connection between IS packaging and the surface syntactic structure, then? Or, in other words, how does syntax operate through information structure in order to provide a fully acceptable interpretation of sentences?

According to the formal approach, syntactic structures exist independently from their function and their meaning, and lexical items bear features that must agree⁸ with other syntactic elements. The primitives of IS, namely Topic and Focus, play a crucial role in the interpretation of information structural strategies, but there still are differing opinions regarding how and at which level of information structure they act. Hence, some features, dedicated to different component of information structure, are introduced into the syntactic *apparatus*, such as the focus feature [+focus]. These features can trigger various kinds of movement (from an ‘unmarked’ to a ‘marked’ word order), and can take shape, on one hand, at the PF level into intonational matters and, on the other hand, at the LF into a mapping from a function to a syntactic structure (Jackendoff, 1972), (Schwabe & Winkler, 2007).

Anticipating here what we will see in the next chapter, Rizzi (1997) unfolds the articulation of topic and focus in Italian left periphery, in order to identify specific dedicated projections. The structure of left periphery is explained within the *Force-Finiteness system*, where Force is found in CP as a projection which specifies clause type (it faces outside) and Finiteness (Fin) is considered “as the core IP-related characteristics that the complementizer system expresses” (Rizzi, 1997, p. 284) and, thus, it faces inside. The head C, which closes from the top the whole leftmost periphery, encloses an illocutionary force, namely the intention, expressed with culture-defined strategies, of the speaker to produce an utterance. Therefore, he proposes an enriched structure for the complementizer system that can be resumed as:

(10) [ForceP [TopP* [FocP [TopP* [FinP [IP...]]]]]]

As (10) shows, topic and focus are positioned within the Force-Fin System, also called ‘split-CP’. Contrarily to TopP that can be recursive (signalled by asterisks), FocP is

⁸ Cfr. Chomsky (2000) and chapter 3.

composed by a unique and non-recursive projection due to its interpretative characteristics.

Erteschik-Shir (2006) proposes a top/foc feature that is freely selected from lexical items, according to the inclusiveness principle, and can be interpreted at both PF and LF. Since the assignment of the feature is caused by the context, she asserts that top/foc feature provides prompts⁹ for the addressee concerning how to manipulate the incoming information, namely:

- a. TOPIC: select the coherent file,
- b. FOCUS: input to create a new file or restore an existing file,
- c. UPDATE: instructions to copy and paste items from focus to topic in order to add them into activated files.

In respect of interpretation, it follows that “a sentence with no topic is uninterpretable and a sentence with no focus is uninformative” (Erteschik-Shir, 2006, p. 37). Truth-conditions are correlated with that element of the sentence to which topic is assigned to, and they vary according to them.

- (11) a. Every man loves SOME woman.
b. EVERY man loves some woman.

(Erteschik-Shir, 2006, p. 43)

The sentence (11a) presents a case of wide scope subject, since we must take in consideration the whole set of men, while we must consider the object *some woman* as the topic of the sentence. Amid (11b), where there is a wide scopal object, we face the opposite interpretation.

Hence, according to the formal approach, information structural notions, which participates in the information’s scope¹⁰, are meant to be lexical features. Through these lexical features, information is vehicled and occasionally meaning is differentiated

⁹ Cf. information as ‘file cards’ theory in Vallduvi (1992)

¹⁰ Cf Vallduvi (1992)

depending on the architecture of a sentence¹¹. To give an example, Modern Eastern Armenian signals focus only through a ‘marked’ V2 word order, conversely to the canonical SOV word order (Giorgi & Haroutyunian, 2020). It is worth reminding that, even though these projections explain movement of constituents to the leftmost periphery in terms of feature-checking, the formal account lacks to justify pragmatic discrepancies between elements in-situ and ex-situ.

WORD ORDER AND DEFINITENESS

One of the syntax-related strategies to encode and decode information is the manipulation of word order, which turns to be a salient element to assign meaning. Languages have a different degree of rigidity as regards the syntactic structure. Generally, if a language has a rigid word order structure, it must adopt other kinds of strategies to supply communicative needs then. This is the case of languages that adopt a strict word order which cannot be broken to the detriment of grammaticality. English, as an example, has a stiff SVO word order and it relies on prosodic devices for coding elements bonded to the communication, such as focus, givenness and topic.

The word order in utterances can be marked or unmarked. Firstly, the unmarked word order follows the canonical order in sentences: in this case, the grammaticality is assured and no particular intonation or reference to the context are detectable. Typically, unmarked word order appears in sentences uttered “out of the blue”, since no other meanings, except for the standard one, are transmitted. Secondly, a marked word order is adopted when there is a variation to the canonical meaning, then sentence’s constituents shift to unexpected positions. Generally, this kind of change happens to satisfy communicative needs between participants, highlighting a specific part of the sentence and enriching the interpretation.

Word order involves contextual, prosodic and interpretative matters. These elements are tangled together, cooperate and affect each other in order to trigger information structural strategies such as givenness, focus and topic.

¹¹ In Modern Eastern Armenian, neither prosodical nor typological differentiation works for focus.

Facing canonical word order, intonation represent the only instrument to express IS features. Phonological items, as pitch accents, play a role to convey matters of IS packaging to the hearer, while it is not possible to deduct them from words' position. Thus, pragmatical and syntactical markedness affects the constituted word order, and their significance can be justified only by matters of context through intonational items. The speaker can use intonational tools to face words' position constraints.

(12) Focus: Peter bought a [Bicycle]_F.

(Winkler, 2012, p. 73, (5))

(13) Topic: [Usain Bolt]_T [runs the fastest 100m in [HIStory]]_C.

(Winkler, 2012, p. 76, (10))

(14) Givenness:

a: What did Peter buy for his daughter?

b: [A [Bicycle]_F]_{FP}.

given: [~~Peter bought for his daughter~~]_G

(Winkler, 2012, p. 79, (17))

The three examples above, which propose English utterances with unmarked word order, show the relevance of intonation in order to comprehend the meaning of a sentence. In (12), focus occurs in the right periphery and intonation is the only trigger possible in this case to express the set of possibilities that could have been possible instead of *bicycle*¹². Amid canonical utterances, since English has a rigid SVO order and the relation topic-focus is subjected to complementarity, typically topicalization will occur in the leftmost part. As we saw in Chafe's description, given information is always pronounced with a lower accent and a weaker stress and it is possible to pronominalize or, such as in (14), to omit it. As Winkler (2012) says, "there is an interaction between the general tendencies of placing the topic constituent before the focus constituent [...] and specific highlighting

¹² For the sake of completeness, it should be reminded that the meaning in sentence (X!) could be ambiguous because it does not provide the context of occurrence.

and deaccentuation techniques which model the temporal process of the communication in relation to the dynamic changes in the common ground”.

The modification of the information structure packaging from an unmarked construction to a marked one submits to a communicative necessity. The speaker typically modifies SVO construction mainly when a particular effect to the hearer cannot be produced through the modification of pitch accent or the selection of specific lexical items. Thus, the most important constructions which expect the canonical order’s shift involve the movements to the right/left periphery, such as topicalization, NP shift and extraposition, the subject/object constituents’ switching, and the ellipsis phenomenon.

The notion of *definiteness*, as in Chafe (1976), accounts for the speaker’s ability of referring to a determined entity. The distinction between what we know, or what we suppose to know, and the unknown determines some aspects of language, since we can identify a certain object as part (or not) of our knowledge-store.

It is possible to express definiteness through lexical items which are proper of overt language structures, which, namely, take shape before the Spell-Out. Such strategies include definite articles to highlight the definite status and, contrarily, indefinite articles for indefinite status of objects. Furthermore, we can also find words like *this* or *that* in languages like English or Italian, as well as proper nouns, which for their internal definition convey the idea of definiteness. At the same time, not every language has the necessity to mark identifiable entities at all or, at least, with the same degree of salience, e.g., Classical Latin and Chinese.

Marking nouns as definite should presuppose that this specific entry is already known not only by the speaker, but also by the addressee. Chafe provides a list concerning the strategies to establish definiteness status, that can be resumed as follows:

- *Intrinsic definiteness*, that is an identifiable noun for definition, since it cannot be confused with anyone else (i.e., *the sun*, *the moon*, *the earth*, ecc.)
- *Context-derived definiteness*, that is a noun which does not own a proper salience derived from its category, but from context. Its definiteness status is most likely recognized by the hearer. Typically, we are talking

about a referent that belongs to a group, a family for example (e.g., 'have you fed *the* cat?').

- *Discourse-derived definiteness*, that is an object previously introduced in the conversation as '*an* object' and later referred to '*the* object'. Here, a new referent is established in the CG.
- *Modifiers-derived definiteness*, namely when new categories are entailed through modifiers, which play a role clarifying the context.

Definiteness is clearly connected with notions of givenness, focus and prosodic matters. On one hand, indefiniteness is surely connected with the introduction of a piece of new information, and it is associated with a pitch accent. On the other hand, definiteness often occurs in given elements, but can still go together newly introduced elements, as for nouns with their intrinsic definite feature.

2.3.2| PROSODIC DEVICES

The role of Information Structure is to manipulate the way in which information is conveyed by means of constituents, ordered in respect of their communicative relevance. Phonological matters and accent placement must be considered in structuring information packaging, as observed in Chomsky (1971). The order of constituents is, thus, expressed by syntactic devices, as we saw before, and by prosodic devices, as intonation. Identifying rules of accent placement is, in this sense, of a particular relevance in respect of focused constituents since they bear the main prominence at least in English. On this matter, it is necessary to cite the *Nuclear Stress Rule* proposed in Halle and Vergnaud (1987), that will be discussed further on in association with Cinque's (1993) *Null Theory*.

Feature-based accounts of information structural packaging, which primarily consider formal/grammatical properties, are not enough to give justice to all communicative facets. The fact that elements within a sentence are associated with different degrees of prominence plays a crucial role in the decoding process performed

by the hearer. Moreover, prosodic devices, such pitch accents, are occasionally associated with a specific function or position, such that an architecture perfectly inserted in the T-model of grammar can be identified. Nevertheless, such association in reference to the syntax-prosody interface can ostensibly be mapped only in reference to a specific language (Bocci, 2013). In this regard, natural languages generally maintain a sort of ‘balance’ between syntax and phonology: for example, Italian focus is often highlighted by an uncanonical word order¹³, since a default prosodic pattern seems to be preferred in sentences with a canonical order.

Prosodical considerations within typological research poses sometimes a challenge to the feature-driven approach. In facts, some movements seem to be justified at a phonological level instead of a syntactic level. In order to achieve a specific effect within the information structure, a movement is triggered by this requirement. The main problem found here is that a sort of exchange is needed between prosody and meaning, therefore, following this view, a reconsideration of the T-model of grammar is required.

INTONATION AND DEACCENTUATION

Prosodic structure owns peculiar intonation strategies to mark words and to construct meaning. The primary notion of phonology that is useful to account for is the *fundamental frequency* (F_0), measured in Hertz (Hz). It is a physical property of sound which can be imagined as a straight line that lasts for the entire duration of the utterance, and it can vary in its minimum, *valley*, and maximum, *peak*, in order to highlight the prominence of a specific portion of an utterance.

Tones, contrarily, refer to the quality and the strength of sounds and can distinguish lexical or grammatical meaning amid tonal languages, namely high (H) or low (L), while intonation regards the way in which the perception of the frequency (or *pitch*) can vary (e. g. falling, rising and partial fall/rising intonation).

¹³ Samek-Lodovici (2015) asserts that Italian focus is always in-situ and further dislocations move it to uncanonical positions.

Following the analyses of Ladd (1996) and Büring (2013), we can acknowledge those acoustic (not perceptual) elements which take part in the meaning construction, such as pitch accents, prosodic constituents, boundary tones, scaling of pitch accents and breaks.

The variation in the perceptual quality of F_0 called *pitch accents* (PAs) or, in other words, PAs rely on the subjective perception of a frequency by the auditors. These phonological elements which represent the degree of tonal highness or lowness and constitute the pitch contour are brought by stressed syllables and they can present a local maximum (H^*) or minimum (L^*) within the oscillation of F_0 . Following Ladd (1996, p. 45-46), “pitch accent may be defined as a local feature of a pitch contour [...] which signals that the syllable with which it is associated is *prominent* in the utterance.

Pitch accents are not stress, but the two terms are often used interchangeably. As in Ladd (1996), on one hand, stress is considered as the degree of strength which a syllable bears, and it is shaped by a complex blend of variation in the fundamental frequency. On the other hand, pitch accents are primarily intonational features which reach agreement through prosodic principles.

Depending on the context in which a word occurs, pitch accents can differ. If we consider a stress minimal pair, it will be easier to detect the difference in pitch contour within citation form than in question form or amid an utterance.

(15)	Noun		Verb
	(H^*)	(L)	(L) (H^*)
	r	e	c
	e	c	o
	c	o	r
	r	d	d

(16)	noun in question form	verb in question form
	(L^*)	(H^*)
	(H^*)	(L^*)
	(L^*)	(H^*)
	r	e
	c	c
	o	o
	r	r
	d	d

(17) noun in utterance

(H^*) (L^*)

I TOLD you to keep a record of the addressees.

Verb in utterance

(H*) (L*)

I TOLD you to record the addresses

While *record* taken individually present in (15) peaks depending on the status of the word as a noun or a verb, in (16), for both noun and verb, the peak is reached on the last syllable. Then, amid cases in (17), they do not present relevant change in the intonation due to their integration in a sentence. Furthermore, it is called, *Nuclear Pitch Accent*¹⁴ the tonal rise of the syllable perceived as the most prominent and can be realized with high or low tones. Nevertheless, NPA is not necessarily the most complex one, but, as argued in Büring (2013)¹⁵, it is the last pitch accent that appears among the several pitch accents that belong to the sentence.

Deaccentuation is a prosodic strategy which is mainly employed to indicate the given status of constituents, i.e., ‘old’ information. The part of the sentence which brings no new information to the common ground, typically, does not need to be highlighted via prosodic rules, as is the case of focus. Thus, from an intonational point of view, it takes place a lowering of the tonal frequency for the whole duration of the context-given pronouncement.

However, deaccentuation of given constituents is not a universal feature of languages. According to Avesani (2015), if, on one hand, deaccentuation works as a marker of givenness in languages such as English, on the other hand, in Romance languages cannot, or at least it is not mandatory, deaccent constituents which bear known information.

(18) A: Bin Laden has successfully avoided capture for nearly five years.

(*) (*) (*) (*)

B¹: It's not clear that the search for [Bin Laden]_G is still going on.

(*) (*) (*) (*)

¹⁴ As in (Büring, 2013). He points out that, since pitch accents and stress are often used as synonyms, NPA is often call ‘Nuclear Stress’.

¹⁵ He admits that the overview on NPA is more complex, since there are assumptions which claims that non-final pitch accents would be stronger than the final one.

B²: Non è chiaro se la caccia a [Bin Laden]_G stia proseguendo.

(Avesani, Bocci, Vayra, & Zappoli, 2015, p. 96)

In English¹⁶, given and prosodically non-prominent constituents are necessarily deaccented largely in respect of whichever consciousness the addressee likely owns in the eyes of the speaker (Chafe, 1976). Contrarily, languages that resist to deaccentuation have other kinds of strategies to highlight prominence and have also syntactic constraints that reduce the possibilities of PAs' position. In this sense, Yatabe (2006) notice that the presence of non-constituent focus is hardly detectable in languages with a massive use of destressing.

¹⁶ Cf. Ladd (1996, p. 175-176) for a more detailed look about the absence of deaccenting in some varieties of English.

3 | CONSTITUENT FOCUS

Focus still represents one of the most puzzling issue in linguistic theorizations. Every language develops peculiar focusing strategies that can be more or less evident and can affect sentence's portions of different sizes, from words to whole structure of an utterance. Moreover, focus poses several problems in the construction of meaning, since it can both set boundaries or enrichments to the final comprehension and be affected by the presence of other lexical elements, as operators, or by special word orders.

In this chapter, some focus-related issues are analysed. Starting with a typological differentiation of pragmatic uses of focus, we will turn on some fundamental analyses that has been proposed, taking as starting points prosody, on one hand, and syntax, on the other. Then, we will figure out whether it is possible to argue for a unified view of the phenomenon 'focus' both at the level of syntax and at the level of interfaces. In this regard, in conclusion, we will briefly consider two models for focus semantic interpretation, which have the worthiness to give a unified interpretative structure, relevant within a number of focused structures.

3.1 | TYPOLOGY

How many kinds of focus exist in language? How do they differ in occurrence? Do they have universal or specific cross-languages properties?

Once again, it is worth highlight the non-independence of manifold linguistic fields. As we saw for Information Structure, pragmatics, syntax, semantics and phonology coexist and work together within the mind of both speaker and hearer to make the communication felicitous. It is quite impossible to establish a hierarchy of linguistics relevant component, and it is for this reason that focus typology still represent a controversial ground in focus analyses.

It has already been argued in §2.3 that focus can involve and can be examined through both syntactic and prosodic point of view. Of course, each perspective can explain only partially focus phenomena and its occurrences amid the sentence, leaving aside other aspects. Since languages adopt different strategies in expressing focus, several differentiations depending on the language considered have been proposed. Here, we deal with the general distinction between informative and contrastive focus, continuing then with three more differentiation proposed by Bianchi, Bocci and Cruschina (2013) for Italian, and concluding with a general overview on the seven focus types proposed in Gussenhoven (2007) for English.

3.1.1| INFORMATIVE AND CONTRASTIVE FOCUS

The first and the most largely accepted distinction in pragmatic uses of focus which should be highlighted is between *informative* and *contrastive focus*. Each one is charged to solve different communicative goals, respectively add information (1) and correct/contrast (2).

- (1) a: Dove sei stato ieri?
where be.3SG been yesterday
'Where have you been yesterday?'
- b: Sono stato [al mare]_F.
be.1SG been at sea
'I've been to the sea.'

- (2) a: Sei andato in montagna ieri?

be.2SG gone at mountain yesterday

'Did you go to the mountains yesterday?'

b: No, sono andato [al mare]_F.

no be.1SG gone at sea

'No, I went to the sea.'

Following Brunetti (2004), two different structures with related prosodic and syntactic properties pertain to informative and contrastive focus. On one hand, while informative focus appears in answers to wh-questions and it is marked by the main stress of a sentence, namely the one which bears the highest degree of prominence, contrastive focus "bears a 'special' stress with a higher peak that can fall anywhere in the clause, even on a morpheme" (Brunetti, 2004, p. 7).

(3) a: Hai parlato con Susanna alla festa?

Have.2SG talked with Susan at-the party

'Did you talk with Susan at the party?'

b: L'ho [salutata]_F alla festa.

her.CL have.1SG greeted at-the party

'I greeted her at the party'

(4) a: Susanna è tua moglie?

Susan be.3SG your wife

'Is Susan your wife?'

b: No, è la mia [ex]_F moglie.

No be.3SG the my ex wife

'No, she's my ex-wife'.

Sentences in (X2), (X3) and (X4) present examples of contrastive focus, where focused words occur in final or in the middle position. In other words, the element that bears a prominent accent can be found in more than one position across a sentence with a canonical SVO word order (such is the case for Italian and English). Considering the case of (X4) more specifically, the focused element *ex* turns out to be a non-constituent of the

sentence, therefore we might wonder if other kinds of focus as well as contrastive can be applied to lexical items which are not considered as proper constituents.

On the other hand, information and contrastive focus are located in syntactically different positions. While the former always occupies a lower position as in (1) - this represents the main constraint for information focus-, the latter can occur in higher position and can also be subjected to movement phenomena to the left periphery.

- (5) a: Sei andato in montagna ieri?
Be.2SG gone at mountains yesterday
'Did you go to the mountains yesterday?'
- b: (No,) [Al mare]_F sono andato.
To-the sea be.1SG gone
'I went to the sea.'

Facing with the question in ((5a)=(2a)), another acceptable answer is (5b), where the focused element is displaced from its canonical post-verbal position to an uncanonical pre-verbal one. Furthermore, we may notice that information focus is always present in a sentence due to the construction of information structure itself. Therefore, it appears not only in answers to *wh*-questions, but also in utterances 'out of the blue', because of its relevance making the sentence felicitous.

The most relevant question about information and contrastive focus is whether we are facing two different phenomena, which bear their own syntactic, prosodic and interpretative properties, or we can consider them a single phenomenon with subsumed fundamental properties. Scholars who claim for a differentiation between at least two kinds of focus are Avesani et al. (2015), Benincà and Poletto (2004), Belletti (2004), Krifka (2006, 2012)¹⁷, Bianchi, Bocci and Cruschina (2013), Bocci (2013) among others. Conversely, Rooth (1992), Rizzi (1997), Brunetti (2004), and Samek-Lodovici (2015) tries to maintain a unified idea of focus by converging the differences.

¹⁷ He calls expression focus and denotation focus respectively information focus and contrastive focus.

3.1.2| OTHER TYPOLOGICAL DISTINCTIONS

Further typological distinctions have been noted, other than differentiation between information and contrastive focus. The two main elements considered are (i) the *pragmatic use* of focus constituents, namely if they bear or not contrastiveness, and (ii) the *newness/givenness* status of background items. Following Bianchi, Bocci and Cruschina (2013), it is possible to identify three other kinds of focus, each one with its own relation between pragmatics and background materials, and they can be resumed as:

- *Corrective* focus: +contrastive, +given background
- *Merely contrastive* focus: +contrastive ±given background
- *Mirative* focus: -contrastive, ±given background

As far as corrective focus concerns, a set of alternatives is evoked in the exchange and it takes shape in the utterances' corrective form, while the non-focused elements are given and can be omitted. Moreover, corrective focus is identified as a subtype of contrastive focus, since their difference lies in the width of available alternatives – two alternatives for corrective focus (i.e. the minimum number to express correction) and more than two for contrastive focus. In the following examples for the description of each of three types of focus, I will include also focus-fronted variants, that will be useful later on for the explanation of focus movements and their constraints, namely (6b), (7b') and (8a).

(6) a: Hanno invitato Marina.
 have.3PL invited Marina
 'They invited Marina'

b: Giulia hanno invitato (, non Marina).
 Julie have.3PL invited not Marina

'They invited Julie (, not Marina).'

b': Hanno invitato Giulia (, non Marina).

have.3PL invited Julie not Marina

'They invited Julie (, not Marina).'

(Bianchi, Bocci, & Cruschina, 2013, p. 5)

Merely contrastive focus presents contrastiveness feature as well, but it provides a sentence-internal set of alternatives. Here, contrastiveness introduces two parallel alternatives, which typically occur in a negative form, and the utterance is not necessarily connected with a previous one, therefore non-focal items can or cannot be given.

(7) b: Ti conviene prendere il taxi, non la metro...
you.DAT be-better.3SG take.INF the taxi not the underground
'You'd better take the taxi, not the underground...'

b': *Il taxi ti conviene prendere, non la metro...
the taxi you.DAT be-better.3SG take.INF not the underground
'You'd better take the taxi, not the underground...'

(Bianchi, Bocci, & Cruschina, 2013, p. 6)

Finally, mirative focus, normally uttered in 'out of the blue' contexts, concerns information which the speaker has recently acquired and, hence, are not introjected yet in the participants' CG. Furthermore, since mirative focus expresses newly introduced information, it does not communicate contrastiveness due to the absence of a salient alternative – broadly speaking, we can talk about an alleged alternative shared in the participants' common ground, but it seems like a stretch.

[CONTEXT: Anna tells about a customer who complained for nothing]

(8) a: Pensa te! Col direttore voleva parlare!
think you with-the manager wanted.3SG speak.INF
'Guess what! He wanted to speak with the manager!'

a': Pensa te! Voleva parlare col direttore!
think you wanted.3SG speak.INF with-the manager
'Guess what! He wanted to speak with the manager!'

(Bianchi, Bocci, & Cruschina, 2013, p. 6)

As far as typological differentiation of English focus concerns, Gussenhoven (2007) identifies seven kinds of focus and he relates them to four semantic distinctions that information packaging can bear.

- *Background vs New Information*: already mentioned distinction between topic and focus, namely the required structure to pursue the communication flow. Amid this semantic area are located 'presentational focus' and 'reactivating focus'.
- *Development vs Correction*: addition or correction of information, which can also mean the information deletion. At this point stands the differentiation from 'corrective focus' and 'counterpresuppositional focus'.
- *Eventive vs Non-eventive*: this level reports in the discourse eventual changes in the context ('eventive focus') or further descriptions about the world ('non-eventive focus').
 - *Definitional vs Contingency*: it can be considered a subtype of non-eventive focus. The distinction stands on the degree of interest in information from the hearer, namely a higher degree for 'definitional focus' and a lower degree for 'contingency focus'.

Presentational and corrective foci seem to correspond respectively to information and contrastive foci. Counterpresupposition focus can be defined as a corrective focus *in itinere*, which means a slight "correction of information which the speaker detects in the hearer's discourse model" (Gussenhoven, 2007, p. 12).

Considering eventive/non-eventive semantic distinction, focus seems to undergo a lowering of relevance toward the hearer. Intaking into account a scale similar to the one

shown in (9), the eventive focus signals a significant change that affects the participants' CG, while contingency focus defines attendant circumstances that could be relevant and definitional focus highlights some aspects that are more likely to be given.

(9) eventive focus → contingency focus → definitional focus¹⁸

The three are distinguished by different accent patterns. While eventive focus presents a salient pitch accent on the lexical item focused only (10a), definitional focus presents accentuation on both focused constituent and its predicate (10b). Finally, contingency focus accents subject, verb, predicate and, eventually, negation (10c).

- (10) a. (A: What seems to be the problem?)
B: [Our CUStomers aren't admitted]_{EVENTIVE}
- b. [Our CUStomers aren't admitted]_{DEFINITIONAL}
(‘That’s the way it is’)
- c. [Our CUStomers AREN'T admitted]_{CONTINGENCY}
(‘In case you had forgotten’)

(Gussenhoven, 2007, p. 16)

The last two types of focus identified are reactivating focus and *identificational focus*, which is discussed in the next section. Within the case of reactivating focus, then, information, which is already present in the CG, are marked. Thus, this strategy, here classified as ‘focus’, turns out to be identical to topicalization with, probably, an added sense of redundancy in order to restore the connection with exactly that referent.

¹⁸ For the purpose of Gussenhoven's (2007) numeration of focus, definitional and contingency foci are subsumed under the category of non-evaluative focus.

3.1.3| FOCUS-FRONTING AND CLEFTING

Languages develop different constructions in order to mark specific types of focused constituents. Considering the cases of Italian – but, more generally, Romance languages – and English, we observe special strategies, such as, respectively, *focus fronting* (FF) and *clefting*, which are responsible for highlighting ostensibly construction-specific pragmatic uses.

In Italian, focus fronting is an information structural strategy, which derives from an overt syntactic operation and causes a change in the canonical SVO word order. Thus, IS triggers movement of the constituent with the most prominent pitch accent to a higher position in the sentence, as showed before in examples (6b), (7b') and (8a).

Bianchi, Bocci and Cruschina (2013) argue that FF is allowed only in mirative and corrective contexts, excluding merely contrastive context, e.g. (7b'). They conducted an experiment on 97 Italian native speakers with the aim of testing the degree of acceptability of sentences with focus in-situ and ex-situ, namely FF sentences. Results show a general preference for in-situ focusing, while only mirative and corrective foci are accepted in cases of FF. Moreover, the fact that merely contrastive focus is perceived as wrong in ex-situ focusing confirms the insufficiency of the only contrastiveness feature to allow FF.

A second test¹⁹ was conducted to compare phonological properties of both mirative and corrective foci in-situ and ex-situ, in order to prove whether we are dealing with two different phenomena or just two uses of the same structure (Bianchi, Bocci, & Cruschina, 2013). Results, analysed through ToBI system, highlight the production of different pitch accents' patterns, that can be resumed as:

<i>Mirative</i>	in-situ: preferred H+L*
	ex-situ: preferred H*
<i>Corrective</i>	in-situ: preferred L+H*
	ex-situ: preferred L+H*

¹⁹ It tested the prosodical production on 3 female Italian native-speaker subjects. All of them were Tuscan variety speakers only.

While mirative focus presents a high tone (H*) in FF and a falling tone pitch accent (H+L*) amid in-situ occurrence, corrective focus has a rising tone pitch accent (L+H*) in both in-situ and ex-situ occurrences. Thus, results present two different grammaticalizations associated with two different phonological patterns, therefore they ostensibly confirm the existence of two different types of foci and reject the option of multiple realizations for the same phenomenon.

Focus fronting, as we saw so far, cannot be just triggered neither by contrastiveness and givenness nor by focus feature, because otherwise FF would be possible for every type of focus. Moreover, FF must vehicle an additional interpretation compared to focus in-situ, since movement strategies, in general, are adopted as a last resort due to their higher cost in terms of discourse economy.

From these assumptions, Bianchi, Bocci and Cruschina (2013, p. 13) “claim that FF is triggered by a functional head which syntactically encodes a Conventional Implicature”. Conventional Implicatures (CIs) are associated with specific words’ meaning through which speaker increases the conveyed pragmatic information and takes a stand. The main CIs’ properties are:

- They are *commitments*.
- They are *not backgrounded*.
- They are *cancellable*.
- They are *not sensitive* to higher operators.

As a result, the interpretations of mirative and corrective foci seem to be conventional implicatures since they share the same properties. Furthermore, concerning the syntactic level of interpretation, mirative and corrective implicatures are located in a lower layer than the one expressing illocutionary Force and are obligatorily inscribed in a focus structure in order to achieve a felicitous sentence. Basing on the cartographic approach (Rizzi, 1997), we can illustrate interpretative layers for a mirative/corrective focus structure as follows (Bianchi, Bocci, & Cruschina, 2013), (Bianchi, 2015):

(11) [FP Force ... [FaiP FAI⁰_{[mir]/[corr]} [FocP YP_i⁺_[+foc] FOC⁰_[+foc] ... [TP ... <YP_i> ...]]]

In (11), the *focus-associated implicature* (FAI) is a functional head which both (i) triggers the mirative/corrective implicature and (ii) activate the lower FocP provoking focused constituent's movement to the Focus head's Specifier position.

Clefting, it-cleft or identificational focus in Gussenhoven (2007), in English, is a syntactic device which owns peculiar semantic properties, such as *existence presupposition* and an *exhaustivity claim*²⁰, and arises with the form 'it is X [who/that VP]. The clefted subject X can optionally be accented if it is recently mentioned, while it is obligatorily accented if it is not present in the CG, thus it is a new information.

(12) a: It was a hat and a coat that Mary bought.
b: It was a hat that Mary bought.

(13) a: Mary/MARY bought a HAT and a COAT.
b: Mary/MARY bought a HAT.

(Gussenhoven, 2007, p. 18)

Nevertheless, clefting mainly regards the exhaustive identification of a definite constituent – namely the identification of a single item to be interpreted as focus (Kiss, 1998) – and it does not involve the degree of information newness. Gussenhoven argues that, while (12a) and (12b) are in contradiction one with another from a semantic point of view, (13a) and (13b) do not produce the same conflictual result, therefore it-clefts express what he calls identificational focus. Contrarily, a different view is proposed by Büring (2012), who concludes that pre-verbal (clefts) and post-verbal position could bear the same meaning, although clefted focus achieves an exhaustivity characteristic through the higher position that it occupies.

²⁰ Büring (2012, p. 14) uses a generic term as 'claim' to evidence the uncertainty of identifying what makes a sentence 'exhaustive'.

3.2| ACCOUNTS ON FOCUS

Previous analyses on focus can be divided in two main categories, namely prosody-based accounts and syntax-based accounts. As we saw in §2.3 for the analyses of information structural packaging methods, each account takes as its starting point, on one hand, matters of intonation and prosody, and, on the other hand, aspects of formal information construction. Firstly, we will see accounts on focus from a prosodic point of view by scholars such as Cinque (1993), Reinhart (1995), Zubizarreta (1998) and Samek-Lodovici (Samek-Lodovici, 2015); secondarily, we will concentrate on syntax-based accounts by Brody (1990), Rizzi (1997), Frascarelli (2000) and Bocci (2013).

3.2.1| PROSODY-BASED ACCOUNTS

As we argued in §2.3.2, focus hold a relation with the more prominent accent of the sentence, which ensures the achievement of an additional meaning. While the terms as ‘accent’ or ‘accenting’, that refer to an absolute criterion (a syllable is accented or not), are often used in corelation with focus, it would be better to talk about *stress*, which identify the scalar relation between two syllables. Thus, “it is plausible to think that, ultimately, focus is realized by stress, which in turn results in pitch accenting by prosody-internal principles” (Büring, 2012, p. 106).

Prosodic prominence of focus is realised in the surface structure, then it is a visible or, better, audible, property which eases the decoding of information. As we, partially, saw before, while uncanonical word order is an aid element in the decoding of an ex-situ focused element, the only cue for detecting focus left in-situ remains stressing.

Prosody-based accounts work on stresses and their prominence in order to predict the correct position of primary and secondary stresses within the sentence. In this framework, a certain dialogue between either prosody and syntax, and prosody and meaning construction is claimed.

CINQUE

The main aim of the *Null Theory* (Cinque, 1993) is to derive phrase stress' pattern from the surface structure of syntactic constituents. Furthermore, this theory turns out to be relevant cross-linguistically, instead of restricted to a single language structure, as the *Nuclear Stress Rule* (Halle & Vergnaud, 1987). The formulation of Null Theory is the following:

- (14)
- a. Interpret boundaries of syntactic constituents as metrical boundaries.
 - b. Locate the heads of the line N constituents on the line N +1.
 - c. Each rule applies to a maximal string containing no internal boundaries.
 - d. an asterisk on line N must correspond to an asterisk on line N -1

(Cinque, 1993, p. 244)

Crucially, since prosodic constituents and syntactic constituents can be overlapped establishing a perfect match, it is possible to derivate stress position from sentence's syntactic structure only. Hence, it follows that "the rightmost or the leftmost location of the main stress is simply a function of the rightmost or the leftmost location of the most deeply embedded phrase (as determined by the direction of branching)" (Cinque, 1993, p. 245). In this framework, focus position is related to stress position. Moreover, this rule can be applied in languages with a different word order notwithstanding the direction of branching. In fact, Null Theory also applies its rules within the boundaries of focused constituent and not in the whole sentence.

A further distinction arises in Cinque's theory, namely between major and minor path. On one hand, the major path represents the way in which the recursive node is embedded, and, on the other hand, minor path is the way for non-recursive node. Thus, he claims that both paths follow two independent procedures of stress assignment. Further on, we will see how Zubizarreta (1998), facing the inability of this theory to account for German data, reformulates major and minor paths in favour of a distinction between complement and non-complement nodes.

However, considering sentences composed by more than one phrases, both Nuclear Stress Rule and Null Theory can predict which constituent amid a specific phrase bears the main stress, but cannot say anything about which one of the phrases contains the focused constituent, namely the most prominent stress in the whole sentence.

The last apparent issue Cinque addresses is whereas a clause present a deaccented constituent in the most embedded position. Here, we consider an example from Brunetti (2004, p. 18):

- (15) I'd give the money to Mary, but I don't trust Mary.
 [IP I [I do [NegP not [VP trust [DP Mary]]]]]]

Cinque explains the DP *Mary's* deaccentuation phenomenon in the second phrase as a case of *marginalization*, which regards all post-focused elements. Hence, *Mary* seems to be an adjunct and it do not really occupy the most embedded position as well as it happens with anaphoric pronouns (we can easily replace the last *Mary* with the pronoun *her*). Both cases are also presented as given, since they bear information that is already present in the CG.

Two main problems of this theory are (i) the inability to select which phrase of a complex sentence may contain the main stress, and (ii) the chance to deal with canonical word order clauses only, failing to provide a rule for marked constituents.

REINHART

Reinhart (1995) reformulates Cinque's Null Theory in order to create a more direct correlation between focus and stress. She also provides a solution for the unsolved issue of marked constituents. In this regard, she derives, on one hand, the *Focus set* from Null Theory's rules, which works for unmarked contexts, (Reinhart, 1995, p. 46) and, on the other hand, adds a *Marked rule* (Reinhart, 1995, p. 45):

- (16) Focus set

The focus-set of IP contains any sequence of constituents of IP, which includes the main stress of IP.

(17) Marked rule

Relocate the stress of a given cycle.

Reinhart points out that the marked rule, applied during the cyclical assignment of stress (14c), is an operation that languages avoid whether a more economic strategy is available. Furthermore, it can be applied only if the rule for canonical word order cannot provide a suited Focus set. This happens for Italian, since focus in-situ, which can occur in a multiplicity of positions, remain more likely.

It is undoubtedly true that the determination of a Focus set, according to Reinhart, depends on the Nuclear Stress Rule or, better, on the Null Theory. Hence, stress assignment rules establish a set of possible constituents that can be selected as focused via pragmatics, and, only partially, via prosody.

Stress assignment relies also on pragmatic rules of informativeness, which are realized through strategies of stress-strengthening or anaphoric deaccentuation, in order to signal whether a constituent is semantically salient or not. As we saw before, stress indicates a degree of strength, instead of an absolute value, hence a syllable can be higher (more strength) or lower (less strength) depending on the degree of prominence they bear. Thus, we can wonder if destressing, here, could be comparable to Cinque's marginalized adjuncts due to the uninformative feature they both present, signalled also by a lower stress.

- (18) a. Only **John** can invite *Sue*.
b. Only **John** can *invite* her.

In (18), the constituent 'John' is the focused one in both sentences since it presents the main stress, while the secondary stress pattern is located on 'Sue' and 'invite' respectively in (18a) and (18b). Thus, the anaphoric pronoun 'her' is deaccented for the reasons we saw before.

The main problem with Reinhart's proposal about the preference that every language express in favour of the most economic choice, namely leaving focus in-situ, is

not validate by examples from both English and Italian. We can find either constructions in-situ and ex-situ (therefore, marked) to express the same meaning. Thus, how it is possible to predict a bias towards two different constructions, it is still an unsolved issue.

ZUBIZARRETA

In her account, Zubizarreta (1998) claims not only for a strict relation between prosody and syntax, but also a prominence of former on the latter. Considering that different types of foci exist, she formulates a prominence rule able to account pragmatic discordances between metrically visible and metrically invisible categories. Since Null Theory pretends to be valid in every natural language, she leans towards Nuclear Stress Rule. In this regard, she formulates the *Focus Prominence Rule* with the main aim of correcting Cinque's (1993) reformulation of Nuclear Stress Rule.

(19) Focus Prominence Rule

Given two sister categories, one focused and the other non-focused, the former must be more prominent than the latter.

(Zubizarreta, 1998, p. 88)

Zubizarreta points out two clarifications of Cinque (1993). Firstly, she substitutes the distinction between major and minor paths with complement node and non-complement node, making relevant whether the added phrase is an argument or an adjunct. This correction is justified by the incapacity of Null Theory to account German data, where adjuncts, which appear in the left recursive side of sentence, do not present a prosodic prominence. Secondly, she claims for a required differentiation among languages in the application of stress assignment rules, as Nuclear Stress Rule does.

These precisions make possible to deal with differences in deaccentuation across languages, highlighting the existence of, already mentioned, metrical invisible elements in languages, such as English, German and French, and other metrical elements that are always visible in languages, such Italian and Spanish. In facts, deaccentuation on given elements makes some syntactic categories not detectable in terms of prosody.

Zubizarreta tries also to give a motivation to focus movement within boundaries of Nuclear Stress Rule and her Focus Prominence Rule. In this view, movement of constituents to a higher position (FocP) is triggered by prosodic matters.

(20) [_{FocP} [_{IP} t_i [ha portato i biscotti]]]_j [_{FocP} Maria_i [_{TP} t_j]]]
 has.3SG brought the biscuits Mary

Here, the constituent *Mary* undergoes to a first movement, triggered by syntactic needs, and later to a p(rosodic)-movement from the most embedded position in IP to FocP, where it can bear the main stress. Clearly, such a subsequence of movements triggered by both prosodic and syntactic matters results too complex and does not say anything about the reason why it should happen in terms of communication economy.

SAMEK-LODOVICI

Considering evidence from Italian, Samek-Lodovici (2015) develops a theory in which movement of focused material results from the dislocation of given constituents. He claims that Italian focus occurs in-situ and, later, several processes of dislocation are applied. This kind of movements, when involving a focused constituent, extract focus from the right-dislocated phrase and place it on the left periphery, allowing focus to occur in several position in a sentence.

Italian contrastive focus, which occurs in initial, medial, and final position within the clause, is examined from a unified point of view, trying to provide a homogeneous account for a wide variety of cases. As we will see further on, the analysis proposed by Samek-Lodovici presupposes a radical revision of Rizzi's (1997) split CPs, since in his view it is not possible to assume the existence of a unique projection for contrastive focus. In facts, a single position dedicated to focus would not provide an exhaustive explanation for all occurrences of Italian focus.

Moreover, he claims against an analysis of movement based on feature checking. In this regard, two kinds of movement seem to challenge this view. Firstly, what he calls 'focus evacuation', namely the extraction of a focused constituent cued with right

dislocation to another position, in order to solve the impossibility for the right dislocated portion to contain a stressed item.

(21) a. Bill ha visto Milano.

Bill (has) seen Milan

'Bill saw Milan.'

b1. No, [_{TP} *pro* ha visto ROMA_F].

No, (he) has seen Rome

'No, he saw ROME.'

b2. No, ROMA_F [_{TP} *pro* ha visto]_R.

No. Rome, (he) has seen

'No, he saw Rome.'

(Samek-Lodovici, 2015, p. 180, (31))

The example shows two alternative answers to (21a). In (21b1), right dislocation does not take place and the focused constituent 'Rome' remains within TP. Conversely, in (21b2) the focused constituent is evacuated from the right-dislocated TP. Focus evacuation is justified by prosodic needs, since right-dislocated constituents are meant to be discourse-given and, therefore, cannot contain prominent material. Furthermore, the final position occupied by the focused constituent is the one which requires the less amount of effort, in line with the economy requirement. Secondly, the so-called 'left-shift' movement of a non-focused constituent from a low position to a higher one above focused material is explained by prosodic needs as well. Hence, left-shift of unfocused constituents provides a better alignment of stress with the right-peripheral portion of the clause. It follows that the study of focalization events not in terms of features or principles but referring to prosodic patterns of the whole sentence leads back to a strong reconsideration of the T-model of grammar.

CONSTRAINTS ON PROSODY-BASED ACCOUNTS

Every argumentation for an approach based on prosody raises theoretical issues about the model of grammar proposed in Chomsky (1995). As we saw in §2.1, by no means the influence of prosody on syntax is acceptable without theorizing a modification in the T-model of grammar. In the next chapter, reconsiderations of it will be discussed.

The main issue that prosody-based accounts leave aside is whether movement of focused constituent is conceived. Furthermore, even if prosodic rules can predict the right location of stress, an interpretative problem is left unsolved, that is how focus can be interpreted at LF level. If we assume that a focus property, i.e., stress within prosody-based framework, is attributed to a lexical item at PF level, we must derive, again, an exchange between the two interfaces.

3.2.2| SYNTAX-BASED ACCOUNTS

Focus is explained, from a syntactic point of view, as a property encoded in languages' formal structure through a feature. As for prosody-based accounts, syntax-based approaches can bring light only on some focus-related issues, leaving others unaccounted. It is worth reminding that focus is a phenomenon that can be treated under several point of view. It can pertain to different constituent positions within a canonical word order, can be realized through several structures (as F-fronting and clefting), can be moved to the left or right periphery, and can present different typological patterns.

In order to elaborate an approach which explains focus phenomenon from a syntactic point of view, a focus feature and a focus-dedicated position within the leftmost periphery have been theorized. Moreover, syntax-based approaches, while motivating focus in-situ and ex-situ, bind focus-dedicated position to pragmatic uses of focus, e.g., contrastive use associated to a high focus position in English.

RIZZI

Rizzi (1997), as we saw in Chapter 2, postulates the existence of a [+Focus] feature positioned in the specifier of FocP (§2.3.1). In other words, a focus-dedicated head exists within the left periphery of a sentence and its specifier can overtly or covertly contain the focused constituent. The most relevant account that follows this path is provided by Brody (1990) with data from Hungarian.

(22) [ForceP [TopP* [FocP [TopP* [FinP [IP...]]]]]]

The structure of the left periphery reported here in ((22) = ch. 1, (10)) shows that the functional projection FocP is surrounded by two other projections for topicalized constituents (TopP*, where asterisks mark recursive property), which can reveal their recursive property. Contrary, Rizzi do not admit recursiveness for FocP, which would lead to ungrammaticality, since its complement bear the already known information/presupposed part of the utterance. Hence, the locating of a focus-dedicated specified head gives an explanation to the finding of focused constituents in a leftmost position. Moreover, focus movement is of an overt type, as it is visible, thus achieved before the Spell-Out.

Rizzi (1997), then, identify some properties of focus, listed here, that differentiate its status from topic:

- Focus avoids using *resumptive clitics*, while topic constructions admit it.

(23) *[Il tuo libro]_F lo ho comprato (non il suo).

'[your book]_F I bought it (not his)'

- Focus allows *weak cross-over* (WCO) effects, even if its grammaticality is sometimes questionable, while topic does not allow it.

(24) ?? GIANNI_i sua_i madre lo ha sempre apprezzato t_i (not Piero).

'GIANNI his mother always appreciated, not Piero'

(Rizzi, 1997, p. 290, (18))

- Focus allows *bare quantificational elements*, while topics does not.

- (25) a. NESSUNO ho visto t
 ‘NOONE I saw’
 b. TUTTO ho fatto t
 ‘Everything I did’

(Rizzi, 1997, p. 290, (20a), (20b))

- Focus position is a *unique* position, that do not allow recursiveness, while, as we saw before, topic positions admit arguments and adjuncts.

- Focus is incompatible with *Wh-operators*, while topic allows them in a fixed order.

- (26) a. *A GIANNI che cosa hai detto (, non a Piero)?
 ‘TO GIANNI what did you tell (, not to Piero)?
 b. *Che cosa A GIANNI hai detto (, non a Piero)?
 ‘What TO GIANNI did you tell (, not to Piero)?

(Rizzi, 1997, p. 291, (25))

Several counterevidences arise against the last point about the focus’ incompatibility with wh-operators. The most evident example is the case of embedded wh-questions where a constituent is focused (Cinque, 1993).

Another important finding in Rizzi is that focus movement must be an A’-movement subjected to island effects. As said by Rizzi (1997, p. 291), “A’ dependencies must be split into those involving a quantifier which binds a variable and those that involve non-quantificational A’ binding, binding of a null epithet or a null constant”. From here, it is claimed that focus concerns quantificational A’ binding, and Topic, contrarily, concerns non-quantificational A’ binding, where the null constant is represented by an anaphoric operator, as clitics.

- (27) Your book, [OP [I bought t]]

(Rizzi, 1997, p. 293, (29))

- (28) Il tuo libro, **lo** ho comprato.
 the your book, it-CL (I) have bought

‘Your book, I bought it’

A difference between English and Romance languages, he argues, stands in the non-availability of the null operator for English (27), while it is visible in Romance languages (28).

A probation for focus as a quantificational element comes from the point two and three of the list above. Weak cross-over does not allow references amid a pronoun and its antecedent, if it bear a quantified element with a variable which follows the pronoun (24). Moreover, quantifier elements, as *noone* and *everything*, can be focused and, therefore, they can occupy a position amid the left periphery (25a, b).

According to this view, movement of focused constituents is triggered by merely syntactic matters or, in other words, in order to occupy a feature-checking position relative to the Foc head. But can a syntax-based approach deal with a low focus position? Basing on WCO analysis, Chomsky (1976) suggests that LF movement could represent a solution to focus, universal quantifiers’ scope and *wh*-movement phenomena. In a broader sense, all three of these constructions happens in the leftmost periphery of a sentence, while they leave a ‘trace’ in-situ. Furthermore, if a pronoun preceding the variable left in-situ (by a quantifier or a *wh*-element) is present, it cannot co-refer with the moved LF. The examples below, which show this phenomenon (30, 31, 32), follow the scheme in (29).

(29) $Q_i \dots \text{pro}_i \dots x_i$

(30) a. * Who_i did the woman he_i loved betray t_i ?

(31) a. * The woman he_i loved betrayed someone_i
b. LF: Someone_i the woman he_i loved betrayed t_i

(32) a. * The woman he_i loved betrayed JOHN_i

Rizzi (1997), moreover, argues that high focus position is restricted to focused items which express contrast, while post-verbal focus can express also other pragmatic intentions. As we will saw further on, this consideration is not always true and it represents one of the weaknesses of Rizzi’s account and, in general, of a syntax-based

approach. Basically, Chomsky's (1976) finding, on one hand, and the introduction of a focus-feature by Brody (1990) and Rizzi (1997), on the other, reach the same conclusions although they follow different paths.

FRASCARELLI

Movement in the LF level does not really provide a full explanation for focus left in-situ. As Frascarelli (2000) points out, it is not possible for phonetical prominence to be assigned at the PF level, whereas [+Focus] feature is checked via movement to specifier of FocP after the Spell-Out.

Following Chomsky (1995), Frascarelli builds up a theory where verb is the key element and the [+Focus] feature must be checked before Spell-Out, since it is a 'strong' feature. She also rejects the idea of LF movement, assumed as illogical. Considering that the 'strength' property of a feature is, actually, a 'meta-feature', it is forcefully outlined within a theory that pretend to be minimalist (Brunetti, 2004).

In this framework, feature-checking is allowed both within the spec-head relation (high-focus) and within complement-head relation (low-focus). Moreover, languages can adopt high/low-focus strategies or both, as the case of Italian, but in every case adjacency with verb is faced. Here, the verb is the category in charge for feature-checking, since it always moves to FocP, while movement of the focused item is not required.

As far as prosody concerns, focus and verb always stand in the same prosodic phrase either in high-focus and in low-focus relations, without any intonational break between constituents.

Some issues arise when focus and verb are not in spec-head or complement-head relations, that, as we saw before, represents a mandatory situation for feature-checking. On one hand, Italian data challenge spec-head relation since it is likely the presence of other elements between the verb and the focused constituent.

- (33) Credo che a Gianni QUESTO, domani, gli dovremmo dire.
(I) think that to Gianni this tomorrow to-him-CL (we) should say
"Tomorrow, I think that we should say it to Gianni".

(Brunetti, 2004, p. 48, (35))

(34) ... [WP QUESTO [TopP domani [FocP t_{questo} [F gli dovremmo ...

(Brunetti, 2004, p. 49, (36))

In (33), the presence of 'domani' between the focused element 'questo' and the Foc is explained by Frascarelli (2000) introducing an additional movement of the focused element from the original position in FocP, where it leaves a variable *t*, to the landing site WP. Furthermore, a recursive TopP occupied by 'domani' precedes FocP, as (34) shows. Thus, the whole procedure, which turns out to be even somewhat forced, is justified by merely discourse-related matters.

On the other hand, in low-focused phrases there must be only one phonologically prominent constituent in the sequence under TP²¹ in order for it to be checked. For this syntactic reason, Frascarelli assumes that all non-focused items must be extraposed, or "marginalized", in a post-verbal position. In contrary to what we saw in the account by Rizzi (1997), where FocP is surrounded by two other TopPs, Frascarelli claims for the existence of only one TopP, which precedes FocP, and post-focal Topics are generated in that position, namely not under TP. Therefore, while post-focal topic remains in -situ, the other part of the sentence moves and a resumptive clitic of TopP appears in FocP, as a signal of the movement which took place (34 and 35).

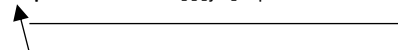
(35) A questo NON GLIEL'HO POTUTA DARE la sufficienza.

To this (I) not to-him-CL-it-CL could to-give the pass-mark

'I couldn't give the pass mark to this boy'

(Brunetti, 2004, p. 50, (37))

(36) [CP [WP [TopP a questo [FocP [IP non gliel'ho potuta dare]]]_j [TopP la sufficienza t_j]]]



(Brunetti, 2004, p. 50, (38))

²¹ In Frascarelli (2000), it appears as AgrSP, even if Chomsky (1995) asserts that TP is the complement of Foc. This distinction is not relevant for purposes discussed here.

The main problem, which arises for movement showed in (36), is that it happens for no reason apparently and the landing site is represented by a generic WP. Furthermore, this kind of account seems to be even more forced if we consider a sentence without a resumptive pronoun. In this respect, Frascarelli argues that a pragmatically undetermined lexical item occurs within a not well-defined 'default focus position'.

Some problems remain even with the introduction of a new operation called *Agree*. In Chomsky (2000), this operation is theorized to explain distant relations amid lexical items and formal features. This long-distance operation, indeed, is claimed to have a feature-checking property only, while movement is both feature-checking and pied-piping. Thus, *Agree* ostensibly offer a solution for focus in-situ avoiding covert movement. Conversely, even considering possible the feature-checking via *Agree* operation, we must remember that the operation *Move* is more costly, and it should not apply without a proved reason.

Nevertheless, in Frascarelli (2000) a covert movement at LF level is maintained due to interpretative needs of focus. In fact, feature-checking creates the syntactical context for focus to be interpreted, but another operation is required to activate the interpretation. But, as it is claimed by Brunetti (2004, p. 54), "no feature has to be checked with movement, so no movement at all can occur, and the focused item is interpreted as an operator in-situ".

BOCCI

Following Rizzi's cartographic approach (1997), Bocci (2013) argues in favour of the encoding of information structural categories, such as topic and focus, as formal features. Such features are available and integrated within the Numeration, in the sense of Chomsky (1995), and, hence, they are involved in modelling lexical items through syntax. In respect of the T-model of grammar, no direct exchange between PF and LF is needed, but syntax-prosody mapping rules are provided to output from the initial representation the final prosodic patterns. Therefore, morphosyntactic properties, as word order, and prosody are occasionally modified by discourse-related needs.

In his view, the focus feature can account for focus in-situ as well as dislocation to the rightmost and the leftmost periphery, providing a uniform import for the assignment of focus. Interestingly, he highlights an existing interaction at the prosodic level between default and marked patterns, and that the marked ones are sensitive to discourse-related features encoded in syntax. In his words (2013, p. 3), “feature-sensitive rules are responsible, for instance, for the formation of prosodic constituents which violate the default prominence pattern and the selection of pitch accents”. In support of his thesis, Bocci points out that prosodic patterns of contrastive focus, relatively to Tuscan Italian, are associated to a rising pitch (L+H*), while informational focus associates with a falling pitch (H+L*).

Conversely, the low pitch accent L*, assigned to postfocal material, is not associated with any discourse-related property, but rather it defines the right edge of a focused phrase. Hence, Bocci formulates a *Focus Defining Rule* (reported here in (37)) to describe the behaviour of L*.

(37) **Focus Defining Rule**

The PA which defines the focus type and from which the focus projection is computed is the rightmost PA able to express focus, within the focus domain.

(Bocci, 2013, pp. 146, (166))

The focus defining rule works along with the uniqueness requirement of focus in Italian, that will be discussed in detail in chapter 5. Basically, prosodical and morphosyntactic properties of Italian disallow the occurrence of multiple/discontinuous foci and nested foci, namely cases of second occurrence foci. These peculiarities, discussed in Vallduvì (1992)²² and Ladd (1996), regard mainly the failure of deaccenting given material in Italian. Therefore, the result is a preference for default prosodic pattern in both question-answer pairs and out-of-the-blue sentences. Moreover, since Italian topic and focus are better visible than in Germanic languages, a complex system of events

²² His discussion involves Romance languages in general, but Catalan more specifically.

that involve movement is activated in order to highlight, within the sentence what is salient in the discourse, i.e., new information.

CONSTRAINTS ON SYNTAX-BASED ACCOUNTS

While within the prosody-based account a sort of communication between LF and PF is needed to account for focus phenomena, the main problem within the syntax-based account is whether [+Focus] feature represents a legitimate feature. Actually, it seems to violate the Inclusiveness condition, then, if a feature can pertain only to a lexical item and FocP can contain more than one item, the feature must be proper of a single item and the others receive it through the item which own the feature itself.

Moreover, the bulk of the problems arises dealing with the theorization of focus movement. In fact, it is hard to believe that, if a focused item bears a certain pragmatic effect in a low-position, then it will not bear this characteristic once moved to the left-periphery of a sentence, as claimed by Rizzi (1997). In the same way, it is not clear why focused constituents should move leftward if focus strategies in-situ are preferred, since they are less expensive in terms of communication economy (Frascarelli, 2000).

3.2.3| THEORIES FOR AN UNIFICATION OF FOCUS

Being aware of discrepancies revealed in both prosody and syntax-based approaches, attempts to solve main issues are proposed. Here, the cue element is the interpretative status, or statuses, of focus in-situ and ex-situ, namely in the left periphery. Thus, it is possible to consider them differently or, in other words, to consider in-situ and ex-situ foci as two different grammatical elements, each one presenting its own properties Belletti (2001). Contrarily, it is possible accounting for a unified focus theory by demonstrating the factual matching of syntax in both kinds of focus (Brunetti, 2004).

BELLETTI

In Belletti (2001), it is accounted for ‘inversion’ as focalization, namely the possibility that a focus-feature in IP license the subject’s post-verbal position and is responsible for feature checking. To do so, she assumes that the structure of a clause must be more complex than argued before and it must be similar to the left-peripheral system, as showed in Brunetti (2004, p. 125, (92)).

(38) ... [_I Verb [_{TopP} [_{FocP} Subj [_{TopP} [_{VP} t_{subj}

Then, following Brody (1990) and Rizzi (1997), she claims that the FocP in the left periphery is dedicated to a kind of focus expressing contrastiveness, since it cannot answer to wh-questions (39), while the IP-internal do not imply any contrastive interpretation, thus it is informative only. In this sense, empirical probation could be provided by Bianchi, Bocci and Cruschina (2013) in regards of prosodic matters.

- (39) a. Chi è partito?
‘Who has left?’
b. *GIANNI è partito.
‘GIANNI has left’

(Belletti, 2001, p. 6, (7))

Furthermore, Belletti (2001) suggests that IP-internal FocP is deeply embedded in the clause and, while the subject moves to spec,FocP, the verb raises higher, producing the VS order. As she claims (Belletti, 2001, p. 7), “within this approach Focus has no special status: it is a feature which give rise to a regular checking configuration [and] its licensing property does not need to appeal to special external conventions”. Hence, both the dedicated focus positions are generated in-situ: the first one is generated within the left periphery and express contrastiveness, while the second one is generated in a low-position in IP and express informativeness.

BRUNETTI

Brunetti (2004) develops a theory which aims to demonstrate the existence of a single focus encoded in a focus morpheme and that the differences displayed by high and low focus in previous accounts are only apparent. Even if the T-model of grammar is considered as true, Brunetti claims for a connection between the two interfaces. In order to confirm her hypothesis, she tries to reconduct both foci to a unique formal structure, then to flatten interpretative discrepancies.

Firstly, at the Logical Form level, Brunetti challenges Kiss (1998) and she considers interpretative issues, namely the alleged existence of foci with two different semantic meaning. Kiss identifies *exhaustive identification*²³ as the property which pertains to Identificational Focus. From this point, Brunetti deconstructs all three proofs, led by Kiss and listed below, to validate her thesis:

- Idea that identification focus bears an exhaustive identification property.
- Idea that there are lexical restrictions to the expression of identificational focus (universal quantifiers, *also* and *even*-phrases).
- Idea that identificational focus takes scope.

Beginning with the demonstration of the substantial inconsistency of an exhaustive property in Italian focus, Brunetti says that lexical items, such as quantifiers, are not relevant in differentiation of foci, since the use of quantifiers is doubtful even within information focus, as showed in (40). Further on, she proves that a focused constituent, although it is represented by a proper name (then it bears exhaustive identification property), does not enter scope relations due to its behaviour like any other definite DP (41).

- (40) a. Chi stai aspettando?
‘Who are you waiting for?’
b. # Sto aspettando QUALCUNO.

²³ Cf. ch. 3, § 3.1.3

'I am waiting for someone'

(Brunetti, 2004, p. 69, (16))

(41) CON MARIA voleva ballare ogni ragazzo.

With Maria wanted to-dance every boy

'It was with Maria that every boy wanted to dance with'.

(Brunetti, 2004, p. 72, (21b))

Then, Brunetti falsifies the semantic value of contrastiveness via Rooth's (1992) theory of *Alternative Semantics* in order to prove that neither this characteristic could represent a property for focus disambiguation. In fact, following this account, contrastiveness is revealed to be a discourse-bounded effect, rather than a semantic property.

Secondarily, at the Phonetical Form level, she deals with ostensible prosodic differences. In particular, she takes in consideration previous literature about presumed different prominences which correspond to equally different interpretations (Donati & Nespor, 2003). In this regard, Brunetti argues that the claim which states the impossibility neither of contrastive prominence to project nor of focus smaller than a word to be associated with a non-contrastive prominence are true.

(42) [John [just bought [a *[*black*]_F bird]_F]_F]_F.

(Brunetti, 2004, p. 83, (50))

In (42), *black* is associated with *bird* and these two lexical elements form together a word. Then, Brunetti admits that the prominence on the first element is possible only in a metalinguistic-discourse context. Nevertheless, we will return on this issue in the next chapter.

In conclusion, as far as phonetics concern, Brunetti wonders about the nature of phonetic differences. Interestingly, she notes that discrepancies in performance do not correspond necessarily to discrepancies in formal structure, but they follow stylistic or non-grammatical reasons.

3.3 | ACCOUNTS ON FOCUS INTERPRETATION

The issue of focus interpretation is part of a wider controversy, which emerged around the 60', that is the finding of quantifiers having the property of modifying meaning²⁴. Initially, two were the main positions about whether semantics owns separate rules from those concerning syntax. The *Interpretive Semantics response* by Jackendoff (1972) arises within the generative linguistic debate trying to keep syntax independent within which interpretation is derived from an autonomous syntactic component, therefore the level of interpretation remains the one of syntax. This theory places itself in stark contrast to the *Generative Semantics response*, which supports the idea of Deep Structure being the input level to semantics, then locating itself in a more abstract stage (Partee, 2011).

As far as focus concerns, the issue of interpretation is twofold. On one hand, focus phenomena clearly change the meaning of sentences by making a portion more prominent than the others, therefore such strategy of prominence models meaning and vehicles more information than the sentence with a standard pronunciation does. On the other hand, some words that are not prominent but affect focus exist. These words, which can be particles, negations, modal expressions, and quantificational adverbs, are called to be associated with focus because of their ability to further modify the meaning of a sentence.

An interesting, and yet largely adopted, way to deal with interpretation resorts to a formal semantic theory called *Montague's grammar*, developed by the logician Richard Montague. It differs from generative and interpretive semantics since he does not look for a level of interpretation, but he aims to formalize natural languages and he reconducts semantics to a model-theoretic study, namely the analysis of formal language (sentences) and their models (interpretations). Central within Montague's theory is the Fregean *Principle of Compositionality*, which states as follows:

²⁴ Given a pair of NPs, that differs only in the nature of the noun, respectively a proper noun and a quantifier, and applied identical transformational rules, therefore the resulting meaning is different.

Principle of Compositionality

The meaning of a complex expression is a function of the meaning of its parts and of the way they are syntactically combined.

Since the main idea in Montague's theory is to describe natural languages into formal rules, the principle of compositionality provides a constraint under which the mapping of syntax through semantics and vice versa is possible. This kind of framework has an interdisciplinary character and has much to do with logic, philosophy, mathematics, and it is intersected with computer language to the extent where one may wonder whether they are the same thing. Furthermore, a great point reached within semantic studies is the introduction of a formalism, borrowed from logic, that is *lambda-calculus*. Through such tool what is examined is not the meaning itself, but the relation between meaning and structure.

Following Montague, Cresswell (1985) developed an account on the architecture of meaning to which two leading theories concerning formal interpretation of focus, that are Rooth's (1992) Alternative Semantics, and Structured Meanings by von Stechow (1991). In the words of Partee (2011, p. 28) on Cresswell's theory, "we may not know what meanings are, but we know that if two sentences are such that we can imagine a situation in which one of them is true and the other false, then they do not have the same meaning". Hence, we can say something about how syntax and semantics interact, but we must suspend judgment on the true nature of meaning and from where it derives.

We will view Alternative Semantics and Structured Meanings as the leading accounts on interpretation that try to figure out how focus meaning can be reconducted to formal semantics and shed light on focus in-situ and ex-situ. Some focusing operators, such the particles *only*, *also* and *even*, exist and affect the whole meaning and the truth-condition of a sentence, i.e. they associate with focus.

3.3.1| ALTERNATIVE SEMANTICS

According to the Alternative Semantics approach, as proposed in Rooth (1992), abstract entities are encoded in syntactic structures through the attribution of semantic values. In this view, focus associates a set of possible meanings to a set of syntactic propositions. Thus, even if a multiplicity of meanings is possible within a syntactic item, there is a unique principle governing the attribution of meaning.

Interestingly, Alternative Semantics can derive semantic value of different syntactic structures in a compositional way, namely by stating a function through which, from individuals, propositions are identified. Within a second semantic level, two kinds of meanings per every focused item in a sentence are computed in parallel, namely a *standard semantic value*, notated with $[.]^0$, and a *focus semantic value*, notated as $[.]^f$. While the former represents the ordinary meaning, the latter is a set of possible meanings containing at its turn the meaning of standard semantic value. In this regard, Rooth examines four semantic and pragmatic focus-related uses of the theory, listed below:

- *Truth-conditional effect* of focusing adverbs, as ‘only’ or ‘even’, since they pose constraints to the selection of the correct semantic property (P) within a set of property (C).
- *Contrast*, as nothing more than AS theory within phrases, i.e. attributing an additional semantic value to a phrase. An interpretative rule is stated as follows: “construe a phrase α as contrasting with a phrase β , if $[\beta]^0 \in [\alpha]^f$ ” (Rooth, 1992, p. 7).
- *Scalar implicatures*, which establish an ordered relation of entailment in a set of possible semantic values and falsify the subset possibilities. Another constraint rule is stated here: “in constructing a scale of alternative assertions determining the scalar implicatures of a sentence α , choose an underlying set C such that $C \subseteq [\alpha]^f$ ” (Rooth, 1992, p. 9).
- *Question²⁵ and answer correlation*, where the ordinary semantic value of a question is part of the set of answer’s semantic values, then $[q]^0 \subseteq [a]^f$.

²⁵ Rooth (1992) considers wh-questions only.

The leading idea behind each focus-related field analysed by Rooth is that both the ordinary semantic value and the object-specific semantic value are elements of the focus semantic value. Moreover, Alternative Semantics theory says something about the interpretation, leaving aside matters of content, therefore contrastiveness, as a characterization of semantics derived by discourse within a syntactic context, is not a needed notion for focus interpretation. So far, the interpretation principle can be resumed as follows (Rooth, 1992, p. 11, 12):

(43) Focus interpretation principle

In interpreting focus at the level of a phrase α , add a constraint that:

(*contrasting set*) $? \subseteq [\alpha]^f$, or

(*contrasting individuals*) $\gamma \in [\alpha]^f$

? is a variable with the type of a set of objects matching α in type, and

γ is a variable matching α in type.

Considering the identification of focus interpretation level and the identification of the antecedent of the focus interpretation variable as two different processes, the former process represents the core factor to recognise the semantic value. More specifically, a question is interpreted at the level of the answer, a focus under a focusing adverb constraint at the level of VP, contrast of phrases at the N' level and scalar implicatures at the level of S.

Since here, we analysed the interpretative process as a formal process, but how can this theory deal with meaning disambiguation? In this regard, Rooth argues about the presupposed status of the noun constraints by introducing an operator, noted with \sim , which acts on a variable v at LF level. Then, Rooth reformulates the Focus Interpretation Principle relatively to semantics as follows:

“adjoin an operator $\sim v$ to a phrase α in LF, where v is a variable with either the same type as α (individual case), or the type of a set of objects with the same type as α (set case).”

(Rooth, 1992, p. 20)

In Rooth (1992), which is a further and more constrained development of the theory, the variable v is added in order to restrict the choice of alternatives by binding the selection relatively to a given context. Moreover, the operator itself mediates amid a set of alternatives constrained by the contextually bounded variable (v) and a wider, since not constrained, set of alternatives. Hence, the interpretation of focus feature (syntactic level) is described by the phonological interpretation of focus and the alternative semantics which distinguish ordinary/focus semantic values, while the interpretation of focus semantic value (semantic level) is specified by the rules of the operator \sim .

In conclusion, Alternative Semantics Theory supports the thesis of a unified focus phenomenon to the extent that the operator takes scope at both LF and PF levels. As currently envisioned by Rooth, the operator must be present within the phonological domain in order to set out focus prominence.

3.3.2| STRUCTURED MEANINGS

The Structured Meanings approach, as developed by Cresswell (1985) and von Stechow (1991), treats focus as an integral part of the proposition. Focus produces a split in the utterance, namely the focused part and the background part, and, as Alternative Semantics, it constitutes a way of analysing focus-related phenomena, such as focusing operators, question-answer pairs, and multiple foci. In this framework, operators add elements to interpretation, then to focus meaning, since they manipulate, or c-command, the background, that is the expression under the operator without the focused constituent.

In relation to focus-sensitive particles, as in Alternative Semantics, are identified (i) the focus meaning, (ii) a set of focus alternatives and (iii) a function which relates focus meaning within the meaning of the focusing operator scope, i.e. its domain. Hence, focus meanings are analysed through background meaning; standard meaning is always an element of the set of focus meaning alternatives. A classical sample case is:

(44) John [v_P introduced BILL $_F$]

(i) BILL(x) (ordinary meaning in AS)

(ii) $BILL(x) \mid X \in A \mid A = (x_1 \dots x_n)$ (set of alternatives in AS)

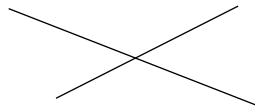
(iii) $\langle \lambda x \in A. \text{John introduced } x, \text{Bill} \rangle$

Focus-background structure: $\langle BILL, A, \lambda x[\text{introd}(x)] \rangle$

Furthermore, it is believed that a LF movement is required by structured propositions, as in (45).

(45) John introduced $BILL_F$.

LF: $[BILL \lambda_1 [\text{John introduced } t_1]]$



$\langle \lambda x. \text{John introduced } x, BILL \rangle$

In this view, the association of *only* with focused elements inside islands is possible since the structured proposition can be explained from the S-structure and the focused item can remain in-situ. Thus, the same sample with a focusing operator added takes the focus-background structure inserting the condition where focus is equal to the meaning of Y, as follows:

(46) John only introduced $BILL_F$ to Sue.

ONLY $\langle BILL, A, \lambda x[\text{introd}(\text{Sue})(x)] \rangle = \lambda x \forall Y \in A [\text{introd}(\text{Sue})(x) \rightarrow BILL=Y]$

Focus operators, in fact, seem to act similarly to quantifiers, which can take a wide scope in the sentence, leaving an indexed trace. In both cases, we face a modification of the meaning and, in this sense, we can do a parallelism on the processes of meaning attribution.

Following von Stechow, Krifka (2006) argues in favour of Structured Meanings approach, discarding Alternative Semantics, since it is possible only to derive focus representation of the latter from the former, but not vice versa (as in 44). Moreover, focus is examined within the Alternative Semantics framework only assuming the substantial independence of focused items, proving to be too case-specific. In fact, this represents an

evident constraint to the theory even in Rooth's eyes, who admits that "it does not go far enough beyond correspondence of linguistic fact" (Rooth, 1992, p. 32).

3.3.3| IN SUM

The main point of agreement in both Alternative Semantics and Structured Meaning is the interpretation of focus as a bulk of alternatives, and each of these alternatives correspond to a choice selected within *privileged possible worlds*, which echoes the framework set out by Montague (Zimmermann & Onea, 2011). This means that focus is an indicator of the presence of alternatives – namely a higher-order set of possibilities that shares a similar form – before the uttering moment. Moreover, focus cues that a choice has been made, and that is why alternatives selected in other possible worlds have neither to be part of the common ground nor to be accommodated within the updated common ground.

Contrarily, the two accounts presented differ in "the ontological status they assign to focus in semantic theory in particular, and in the architecture of grammar more generally" (Zimmermann & Onea, 2011, p. 10). On one hand, focus in Structured Meaning account is integrated within the proposition being part of the whole meaning; on the other hand, in Alternative Semantics the salient alternatives stand in a separate level, i.e. focus value, and focus itself helps to select them within a given context, therefore it serves as a connecting tool between the proposition and the discourse. For this reason, Structured Meaning seems to be the preferable solution for interpretation since it is able in facing focus in out-of-the-blue contexts (hence, a link between proposition and the preceding discourse is not necessarily needed) and preventing ambiguities, such as in Alternative Semantics.

Formal semantics provides tools to construe a unified theory of focus, that can be considered identical in every language. This fact does not conflict with language-specific strategies to express focus as an information-structural device, because, when we talk about semantics, we are talking about something in a level which maximally pertains logic. Hence, next to a common processing of focus, there are multiple focus realizations

that vary across languages, moreover, are submitted to the practical possibilities of expression offered by a certain language.

4 | NON-CONSTITUENT FOCUS

Focus phenomena relatively to sentence's constituents are largely accounted in the literature, while focusing events on non-standard constituents are seldom detected. Such a preference can be explained in terms of simplicity: constituents are focused more frequently than the non-constituent counterpart, they are subjected to a wider range of focusing phenomena, and they can be straightforward compared among different languages. Of course, almost every account on focus is built on data concerning constituents, but it is clear that a focus theory, which is meant to be correct, must be able in dealing with non-constituent focus as well. In this regard, examples of explicit accounts on focus of non-standard constituents are provided by Höhle (1982)²⁶, Pulman (1997), Schwarzschild (1999), Gussenhoven (1999), Artstein (2004), Yatabe and Hayakawa (2005), and Yatabe (2006), while works where there is just a mention of this issue are von Stechow and Uhlmann (1986), Kuppevelt (1995)²⁷, Donati and Nespors (2003), and Brunetti (2004).

4.1 | FOCUSING NON-STANDARD CONSTITUENTS: WHICH ONE?

²⁶ Höhle, T. "Explikationen für 'Normale Betonung' and 'Normale Wortstellung'." In *Satzglieder im Deutschen*, by W. Abraham, 75-153. Tübingen: Gunter Narr., 1982 in Gussenhoven (1999).

²⁷ Both von Stechow and Uhlmann (1986) and Kuppevelt (1995) use 'topic' instead of the term 'discontinuous focus'.

By comparing the few references where non-standard constituent focus appears, it is possible to distinguish at least four kinds of lexical items that can be focused without forming together a canonical constituent:

1. *Morphemes*, that is focusing uniquely a portion of a word.
2. *Sequence of adjacent lexical items*, that is focusing more than one word which appear subsequently one after another, but they do not form, as a whole, a fully-fledged constituent.
3. *Discontinuous focus*, that is a focused phrase minus a contextually given portion located within it.
4. *Multiple foci*, that is the presence within a sentence of more than one focus. This last case can be traced back to non-constituent focus category depending on which focus theory we are referring to. E.g., they will be considered as non-constituent foci within the framework sketched by an extended focus projection theory (Selkirk, 1995), but as two separate constituent foci within a restricted focus projection theory (Gussenhoven, 1999).

Clearly, the most interesting cases of non-constituent focus, although they are the least studied, are the first two since they challenge the existing theories on focus. Moreover, cases of focused morphemes or adjacent words are hardly detectable in languages with a massive deaccentuation of 'given' information, such as English (Ladd, 1996). Thus, cases presented in the first two points are more likely in languages in which prosody is not used as a marker of givenness (Chafe, 1976), (Avesani, Bocci, Vayra, & Zappoli, 2015).

4.1.1| FOCUSED MORPHEMES

Morphemes are the smaller units which bear meaning, they are language-specific, and they can vary in width and function (Graffi & Scalise, 2010). Considering the

definitions of focus previously provided²⁸, there seems to be no reason to consider impossible the focussing of morphemes. In fact, it feels like a lexical item must have as a minimum requirement to be focused just an own meaning. Moreover, from a syntactic point of view focused morphemes can only realize themselves in-situ because they are bounded to the word in which they are incorporated. For this reason, morphemes can be focused uniquely via prosodic patterns, through which is evoked a set of alternative and is performed a meaning.

Following this view, prosodical forms and meaning functions can be connected, assuming the existence of 'intonational elements' (Ladd, 1996), (Liu, Xu, Prom-on, & Yu, 2013). Basically, the aim pursued by phoneticians, who investigate meaning, is to correlate phonetic patterns to their respective functions as cross-linguistically applicable as possible. Hence, some properties pertaining morphemes have been identified (Liu, Xu, Prom-on, & Yu, 2013, p. 87):

1. *Non-autonomy of components*, namely they cannot divide themselves in smaller units.
2. *Multi-componential coding*, namely they can be composed by several elements.
3. *Conditional allomorphs*, namely there can exist more than one version with the same meaning.
4. *Language-specificity*, namely every language has its own morphemes which have origins from a particular diachronic development.

Focus, then, is studied as a communicative function which is prosodically realized. Clearly, it entertains a major degree of correlation with conditional allomorph, where it can express a *metalinguistic* function of correction, as in (1)²⁹, but it can also bear new information, as in (2)³⁰.

²⁸ Cf. §2.2.1.

²⁹ Same as chapter 2, example (3).

³⁰ Same as chapter 3, example (4).

- (1) a: They live in BERlin.
 b: They live in [BerLIN]_F!

(Krifka & Musan, 2012, pp. 8, (12))

- (2) a: Susanna è tua moglie?
 Susan be.3SG your wife
 'Is Susan your wife?'
 b: No, è la mia [ex]_F moglie.
 No be.3SG the my ex wife
 'No, she's my ex-wife'.

Taking into account focus below the word level, namely focus that involves morphemes, Artstein (2004) rejects the superficial labelling of this kind of focus as *metalinguistic* and compares it to focus events above the word level by stating their substantial equality in behaviour. He reports a silly cartoon from the *New Yorker* (April 14, 1956, 93): a man hangs upside down from the ceiling in the psychiatrist's studio, then the psychiatrist says to the man's wife:

- (3) In a case of this kind, Mrs. Hall, our first concern is to persuade the patient that he is a stalagmite.

The prosodic prominence on the last syllable is suggested by the underlining found in the original text, therefore, a salient and contrastive alternative to 'stalagMITE' is evoked, i.e., 'stalagTITE'. Artstein observes that both Alternative Semantics (Rooth, 1992) and Structured Meanings (Krifka, 1991; 2006), (von Stechow, 1991) can fit the attempt of interpreting focused morphemes via *phonological decomposition*, that is by denoting units – morphemes – that do not independently bear meanings. Hence, he specifies, on one hand, a standard semantic value and, on the other a focused semantic value of the word taken into account, that is 'stalagmite'.

- (4) $[[\text{stalag}]]^0$ is the function f such that:
 $f([\text{MITE}]_F^0) = [[\text{stalagmite}]]^0$,

$f([\text{TITE}_F])^0 = [\text{stalagtite}]^0$,
and $f(\alpha)$ is undefined for all other α .

(Artstein, 2004, p. 7, (11))

In his view, there are no such substantial differences that regards the theory of focus between constituent focus and focus below the word level, but they only differ in the meaning of words through which they are composed. Thus, focusing parts of words select meaning in a set of alternative, but similar, forms. A close evidence is available in psycholinguistic studies, where portions of words also represent units from which it is possible to have access in the first place to meaning.

4.1.2| SEQUENCE OF FOCUSED LEXICAL ITEMS

The possibility to face sequence of focused lexical items is deepened by Yatabe (2006), and Yatabe and Hayakawa (2005). While employing a contrastive definition of focus as in Rooth (1992) and Krifka (1991), he considers *non-constituent focus* as “a contiguous sequence of expressions that does not form a morphosyntactic constituent and yet is interpreted as a single focus” (2006, p. 105). Moreover, he highlights the difficulty of finding such focused non-constituents in languages with a massive use of deaccentuation.

(5) {Doitsu no yama e itta wake de wa arimasen.}

Germany GEN mountain to went it's not that

'{It's not that (I) went to a mountain in Germany.}'

a. [[Doitsu no **HATA o futta**] dake desu.

[[Germany GEN flag ACC] waved] it's just that.

'It's just that (I) waved a flag of Germany.'

(Yatabe, 2006, pp. 105, (1))

The example (5) proposed here views 'hata o futta' in contrast with lexical items 'yama e itta', which appears in the context, and 'hata' is the only prosodically prominent element.

Yatabe, then, considers alternative explanations to this phenomenon, that is we are facing a case of (i) multiple foci, (ii) narrow focus on the noun, (iii) deaccentuation of the given 'doitsu' and, finally, (iv) filler-gap dependency. In support of his thesis, production and questionnaire studies were conducted in order to test the degree of perceived acceptability in native speakers. Hence, one by one he discards the four alternative options.

Firstly, the multiple-foci option turns out to be false because of the non-prominence of the element 'futta'. In fact, if they were two separate foci, they would both be prosodically prominent.

Secondarily, Yatabe considers the possibility of 'futta' being deaccented. As he notes, if 'hata o' was the only focused element, then the sentence would have a slightly different meaning, that is 'the only Germany-related thing that I waved was a flag', instead of 'the only Germany-related thing that I did was to wave a flag' – that sounds weird and incoherent in respect of context. Following this hypothesis, a questionnaire to test the perceived acceptability of sentences, in which a similar shift in meaning could be possible, was presented to 21 Japanese native speakers. The answers reported below (2006, pp. 106, (3), (4), (5)) have in (6a) the same intonational patterns of (5a) and a narrow focus on 'hata' in (6b).

(6) Context:

Doitsu no yama e itta no?

Germany GEN mountain to went NML

'Did you go to a mountain in Germany?'

a. Iya, Doitsu no hata o futta n da yo.

no Germany GEN flag ACC waved NML COP I tell you

'No, (what happened is that) I waved a flag of Germany.'

<6, 5, 5, 5>

b. Iya, futta no wa Doitsu no hata da yo.

no what (I) waved TOP Germany GEN flag COP I tell you

'No, what (I) waved was a flag of Germany.'

<0, 1, 4, 16>

The four numbers between signs '<>' indicate how many speakers consider (6a) and (6b) coherent, acceptable, slightly unnatural, and completely incoherent, respectively from the left to the right. Hence, results contradict the prediction that a narrow focus intonational pattern could be used as a coherent answer to a context as in (6). Moreover, in relation to a narrow focus hypothesis, he claims that the whole VP 'Doitsu no hata o futta' is a focus phrase containing another focused element 'hata', which has a contrastive interpretation with 'yama' in the first part of (8). Yatabe compares (5) with (7), asserting that a narrow focus on 'hata' is more likely in (7a) than in (5a), then the only explanation to face different intonational patterns is admitting two different focus structures.

(7) {Doitsu no yama ga funka shita wake de wa arimasen.}

Germany GEN mountain NOM erupted it's not that
{it's not that a mountain in Germany erupted}

a. Koizumi Shushô ga Doitsu no hata o futta dake desu

Koizumi Prime Minister NOM Germany GEN flag ACC waved it's just that
'It's just that Prime Minister Koizumi waved a flag of Germany.'

(8) {Doitsu no yama e itta wake de wa arimasen.}

*[Doitsu no [hata]_F o futta]_F.

Thus, he turns out to the deaccentuation hypothesis, where 'doitsu no' is deaccented due to its contextually givenness. In this respect, he has conducted a production test where 25 non-linguist students were required to fill 6 sentences with 14 elements. All students were recorded while uttering the sentences in order to analyse prominence. Results confirmed Yatabe's hypothesis since the subjects produced sentences like (5a) in respect of both form and prosody. Hence, it is revealed to be true that intonation patterns as in (5a), in which the noun 'hata' can be the only one prosodically prominent, cannot be used in phrases where the VP or the prenominal genitive portion are focused as a whole. Therefore, (5a) presents specific intonational patterns that can be explained in terms of optional deaccentuation of 'old' information.

In facts, as we saw before, deaccentuation of contextually given material is a non-universal property (Ladd, 1996), (Schwarzschild, 1999).

Finally, he argues against the hypothesis that 'doitsu no' has been generated within the VP 'hata o futta', within which it leaves a trace, creating a structure as in (9).

(9) [[Doitsu no]_i [t_i hata o futta] ...]

Conversely to English, this kind of syntactic operation, called 'extraposition', happens in Japanese in the left periphery of a sentence. Since Japanese extraposition involves NP and not VP, a test was conducted in order to check whether it is possible extraposing words out of NP. Hence, the results show the largely unacceptability of such option.

The most evident lack of Yatabe's theory is represented by the limited number of examples involving subsequent focused lexical items both in Japanese and in other languages.

4.1.3| DISCONTINUOUS FOCUS AND MULTIPLE FOCI

Discontinuous and multiple foci are treated, here, together since there seems to be confusion in dealing with them. The presence of more than one pitch accent in a phrase, or in a sentence, is occasionally treated as multiple foci, and sometimes it is explained adducing matters of givenness for some constituents within the same phrase, therefore reconducting it to a case of discontinuous focus. A clarification of such cases is provided by Gussenhoven (1999), who takes back the problem already noted in Höhle (1982)³¹.

(10) a. Was hat das Kind erlebt?

³¹ Höhle, T. "Explikationen für 'Normale Betonung' and 'Normale Wortstellung'." In *Satzglieder im Deutschen*, by W. Abraham, 75-153. Tübingen: Gunter Narr., 1982 in Gussenhoven (1999).

what have.3SG the child.NOM passed

‘What is happened to the child?’

b. KARL hat dem Kind einen FÜLLER geschenkt.

karl have.3SG the child.DAT a.ACC pen given

‘Karl gave a pen to the child’.

[Karl... *einen Füller geschenkt*]_{FOC}

(11) a. Wer hat was hinsichtlich des Kindes getan?

who have.3SG what concerning the child.GEN done

‘who have done what in the regards of the child?’

b. KARL hat dem Kind einen FÜLLER geschenkt.

karl have.3SG the child.DAT a.ACC pen given

‘Karl gave a pen to the child’.

[Karl]_{FOC} [*einen Füller geschenkt*]_{FOC}

Question-answer pairs showed here from Gussenhoven (1999, p. 50, (16), (17)), present the difference between discontinuous focus in (10) and multiple foci in (11). In both the answers, pitch accents occur on the same words, but, while the former (10b) answers to a single question ‘was’, the latter (11b) is in a certain sense divided in two portions which respectively answer to their matching questions, namely ‘was’ for the first focus ‘Karl’ and ‘was’ for the second focused portion ‘einen Füller geschenkt’.

Often the literature deals with cases in which two pitch accents appears, and equally often they are treated merely in terms of focus typology or stress strength, without considering whether they fit into limits set by focus projection rules and must be considered as a single or two distinct foci. In Gundel and Fretheim (2006), an answer like (12b) is explained in terms of topic/focus relation.

(12) a. Who made all this great food?

b. [BILL]_F made the [CURRY]_F.

In her view, ‘curry’ bears, simultaneously, a topic and a contrastive focus feature. Its interpretation as a contrastive topic only is excluded since it is noted with capitalized

letters, which signal prosodic prominence. Contrary, 'Bill' is interpreted as an information focus because it answers to the question 'who'. Instead, according to Büring (1999), 'bill' is viewed as topic, while 'curry' and 'made' as, respectively, focus and background; that is due to the optional presence of topic in the sentence. In other words, topic is meant to be that part of the sentence which does not represent focus but bears a pitch accent, and it can be present or not; while focus always occurs and is cued by a pitch accent. On the one hand, following Gundel, 'karl' and 'füller' in (10b) are respectively informational focus and contrastive focus, while the same words in (11b) are both informational foci. Following Büring, on the other hand, while 'füller' is the focus and 'karl' is the topic in (10b), in (11b) both are foci, according with his view that sentences can be bipartite (i.e., focus + background) or tripartite (i.e., focus + background + topic)³².

Highlighting this kind of disagreement yet to the source of a definition of focus, a straightforward identification of multiple foci and discontinuous focus becomes a tricky thing. An attempt of handling the issue is proposed by Büring (2015; 2016) with a new approach, called *Unalternative Semantics*, which is similar to Rooth's (1992) calculus of focus alternative. The main difference with Alternative Semantics stands in the avoidance of F-markers, therefore focus semantics have direct access to intonational matters, such metrical structure and stress. Hence, in a framework which aims to abstract away from syntactic structures, the occurrence of focus either on constituents or not does not mean anything, since such a theory relies on prosodic factors.

4.2 | ON LIMITS OF FOCUS PROJECTION

Focus projection, as defined in Selkirk (1986, 1995), is the property of an accent, or stress (Büring, 2012), of focus marking beyond the boundaries of the word within which it is located. Since here, we have taken this notion for granted, but an insight of the debate

³² Cf. Vallduvì (1992).

on focus projection is desirable for further argumentations on the issue of non-constituent focus. Thus, three are the principal positions of scholars regarding projection.

- (i) Radical Focus-to-Accent view: F-projection is limited within the *boundaries of the word* it is found on.
- (ii) Restricted focus projection: F-projection can be extended to the argument and its predicate.
- (iii) Extended focus projection: F-projection can be extended to the whole sentence.

Since intonation marks constituents and is involved in defining the information status, namely 'given'/'new', a crucial point is to establish whether pitch accents influence focus marking through focus projection, and in which measure it affects syntax.

The phenomenon of focus projection was first noticed by Chomsky (1971), Jackendoff (1972) and later developed by Selkirk (1995), who provides the following rules for focus assignment and rules for focus interpretation:

(13) F-Assignment Rules

Basic F-Rule: An accented word is F-marked.

F-projection:

- a. F-marking of the *head* of a phrase licenses the F-marking of the phrase.
- b. F-marking of an *internal argument* of a head licenses the F-marking of the head.

(14) Focus Interpretation

F-marked, but not a Focus: New

Not F-marked (not a Focus): Given

F-marked, and Focus: Given or New

As explained before with Cinque's (1993) account, the Nuclear Stress Rule is confuted due to its inability to predict the right location of the accent in a focused sentence. Moreover, Selkirk's theory has the advantage to account for the embedment of F-marking

establishing a relation whereby embeddedness of F-markers entails the novelty of information and givenness is cued by the F-marking absence.

Gussenhoven (1999) highlights that the most evident contradiction faced in the ‘extended focus projection view’, supported by Selkirk, is that pieces of so-called ‘old’ information might be a portion of sentence on which the focus projection is extended. Therefore, it creates an internal contradiction, since a constituent cannot both appear under a focus projection, then representing ‘new’ information, and be contextually given at the same time. Nevertheless, such a conflict is necessary due to Selkirk’s assumption that fully-fledged constituents only can be focused.

- (15) a. What did she do with the book?
 b. ? [She [[sent]_F a book [to [MARY]_F]_F]_{FOC}
- (16) a. What did she do?
 b. [She [[sent]_F a book [to [MARY]_F]_F]_{FOC}
- (17) a. What did she do with the book?
 b. [She [[sent]_F it [to [MARY]_F]_F]_{FOC}

Example (15) is based on a sentence from Gussenhoven (1999, p. 47, (6)), where (3b) is considered a proper answer to (15a). Although it is more likely to have a pair question-answer as in (16) or (17), it does not affect the main claim proposed in Gussenhoven. In fact, ‘it’ in the example (17b) has a coreferent in (17a), namely ‘the book’, therefore it is a given element which appears as included under the focus projection. Even if we consider ‘sent’ as the focused element in (16b), we find out that given/new portions are in clear disagreement with Focus Interpretation Rules in (14).

An additional problem of Selkirk (1995), pointed out by Gussenhoven, is the impossibility for an argument in focus projecting to a predicate, or from the subject to the VP. To face this issue, Selkirk theorises the subject’s generation within the deep structure of VP, where it leaves a trace of its movement as in (18b).

- (18) a. (What happened?)
 b. [[[MARY]_F [[t]_F [left]_F]_F]_{FOC}

As will be seen later, focus projection rules as sketched in Selkirk are too constrained and cannot explain some focus occurrence, such the presence of an argument attached to the predicate of a focus subject and the case of discontinuous foci. Thus, a more relaxed theory is required.

According to the “restricted focus projection view”, focused items in a sentence do not obligatorily form a proper constituent and more than one pitch accent can be present in one phrase. In this regard, Gussenhoven (1999) highlights the advantage a less entailment between accents and width of focus represents in order to clarify a larger number of phenomena. Hence, an analysis that follows a ‘Focus-to-Accent’ path seems to be more suitable for two reasons: firstly, it does not minimize focus-accent relation and takes into account the likely presence of unaccented, but focused, constituents, and, secondarily, sentence interpretation would consider focus as “an auxiliary symbol that is devoid of both phonological and semantic content” (Gussenhoven, 1999, p. 50), therefore supplementary rules of focus interpretation are not needed.

4.3 | TWO ACCOUNTS ON NON-CONSTITUENT FOCUS

Two largely cited accounts on focus, with a specific mention of the occurrence of focus on non-morphosyntactic constituents, are presented. The first one is the theory of *Higher Order Unification* presented by Pulman (1997). It is based on a Rooth-style calculus through which focus is syntactically derived following a top to bottom way, that form a general description of focus comes to specific cases. The second theory is formulated by Schwarzschild (1999) and stands on an articulated notion of Givenness, made clear through the notion of *AvoidF*.

4.3.1 | HIGH ORDER UNIFICATION

Pulman's (1997) theory of focus arises from *Higher Order Unification* (HOU) structuring of meaning. As previous semantic approaches (Alternative Semantics and Structured Meaning), its main aim is to derive interpretation of terms unifying variables in LF and LF' levels. This unification is signalled by establishing a derivation function made explicit with ' λ ', which introduce a construct in a *Quasi Logical Form* (QLF). Furthermore, higher order logic is used in the linguistic field to resolve expressions involving ellipsis and focused structures.

Within this framework, the interpretative analysis follows an *iter* which proceeds from the sentence analysis through the application of declarative rules concerning semantics, morphology and syntax to a LF level as independent as possible from matters of context. In this sense, QLF refers to a natural stage of sentence representation derived from linguistic analysis and from which other representational sublayers derive. Here a scheme of interpretative path is proposed:

(19) Sentence \rightarrow QLFs/QLF resolution in context \rightarrow LF

Following a Higher Order Unification Based Analysis, pairs of higher order terms from QLF and context are defined establishing a function in order to connect them to constructions in LF. Thus, given a particular sentence in which there is an interpretative fallacy, it is possible to reconduct this incompleteness to a higher structure that, in turn, refers to several LF expressions. Unresolved terms, such as in elliptical or other anaphoric expressions, are meant to be resolved independently from matters of context.

The advantages of using High Order Unification for interpretative purposes are that it is less tied to syntax, since an effort to abstract from matters of context is made, and multiple solutions are provided. Thus, due to its non-deterministic nature, this process can be completely reversible, then a LF construction can have some correspondence in formal grammar.

The identification of a salient proposition in the context is a starting point to provide a *conditional equivalence* needed for the interpretation process. As mentioned before, the reversibility of interpretation is also visible here: if the conditional equivalence cannot be abducted from the single case, it can be deductively derived from rules.

Getting back to the analyses in Pulman, he provides an overview on previous semantic approaches on interpretation applied specifically to focus. He rejects both Alternative Semantics and Structured Meanings as successful accounts on binding syntactic constructions and interpretation due to their treating focus as a property of syntactic constituents. Furthermore, he points out that, even though Alternative Semantics provides a unified focus interpretation, its basic notions need to be corrected to front the presence of items which can affect truth conditions.

The main lack found in Pulman (1997), but already noted in Krifka (1991), is revealed to be the struggling of Alternative Semantics in facing the occurrence of focus on parts of sentence which do not form a standard constituent. In this sense, cases of non-standard constituents can be of two types: (i) when a constituent that appears in a discontinuous way (as in (20)) and (ii) when subsequent lexical items are focused, but they do not form a proper syntactic constituent (as in (21)).

(20) John only [tuned] it [OFF]

(Pulman, 1997, p. 84, (38b))

(21) a. What happened to John?
b. SUE KISSED him.

(Pulman, 1997, p. 84, (39a, b))

In regards of the case in example (20), Krifka (1991) proposes an explanation of such phenomenon arguing the unification of the two lexical items. In fact, it is possible to reconduct the focused items to a syntactic constituent at a deep structure level, which has undergone to an overt movement, namely before the Spell-Out. Furthermore, considering Krifka's hypothesis of a unique constituent as true and accepting the pronoun *it* to be deaccented (therefore 'given'), we can wonder whether the elements *tuned* and *off* are made prominent via stressing before or after the Spell-Out. Considering the example (21), a similar argument is made, that is regarding to the focused items 'sue' and 'kissed' as forming the predicate-like meaning 'was kissed by Sue'.

As Pulman highlights, Structured Meanings and alternative Semantics approaches are substantially unable to deal with such cases due to its reference to surface structure

only, namely the compositional structure which meaning is built on. Hence, he proposes³³ the application of an approach closest to categorial grammar, which have the advantage also of predicting non-standard derivations, in order to explain these kinds of focused elements.

Accommodating this necessity, Pulman argue that Higher Order Unification can detect the focus location and its availability as argument of focus sensitive operators basing on syntactic construction and intonation. As we said before, a pair of higher order terms, that can be individuals or any other kinds of categories, must be identified as variables in general.

$$(22) \quad P(\text{mary}) = \text{sings}(X) \rightarrow \{P = \text{sings}, X = \text{mary}\}$$

In the example (22), P and X are variables to which the solution is given in the second part and the relation between them is showed in the first part. A more articulated example, which appear in Pulman (1997, p. 88, (56)), is reported here below:

$$(23) \quad \begin{array}{ll} \text{a.} & P(\text{john}) = \text{likes}(\text{john}, \text{mary}) \rightarrow \{P = \lambda x.\text{likes}(x, \text{mary})\} \\ \text{b.} & P(x) = \text{likes}(\text{john}, \text{mary}) \rightarrow \{P = \lambda y.\text{likes}(y, \text{mary}), x = \text{john}\} \\ & \rightarrow \{P = \lambda y.\text{likes}(\text{john}, y), x = \text{mary}\} \end{array}$$

While (23a) can be easily compared to (22), (23b) presents an unknown variable x within the first higher order term P , therefore there are two equally correct solutions within which x can be substituted by the two different objects 'john' and 'mary'.

As far as focus concerns, the interpretation at QLFs do not proceeds obligatorily on constituents, but "a sequence of meanings of individual morphemes is a valid argument to a focus functor" (Pulman, 1997, p. 92). Thus, an interpretative rule for the functor 'assert' is established (Pulman, 1997, p. 94):

$$(24) \quad \text{assert}(F, S) \Leftrightarrow S$$

³³ Actually, Krifka (1991) also claims that a categorial approach is more likely needed to face such cases, but he tries to derive them following structured meanings via topic-comment structure.

If

$$B(F) = S$$

& context(C)

$$\& P(A) = C$$

& parallel(B · F, P · A)

Basically, if a function links objects of a set A with objects of a set B, a functor connects elements of two different sets, in which their elements are categories. Here, the functor ‘assert’ connects element of the two sets F (focus) and S (sentence), while the two terms for the HOU are the functor ‘asserts’ and the set S. As the equivalence in (24) says, the interpretation is possible if the structure of S is composed by a background B plus a focused item(s) F, within which a preposition C is salient. Furthermore, the salient C can be divided in two parts P and A, which can be paralleled to B and F.

In this framework, the focus-sensitive operator *only* is considered a functor, but conditions for focus interpretation are restricted to nothing other than the focused element. In this case, there is no salient C other than S, therefore S can only be paralleled to itself. Taking back the example (42) in chapter 3, it can be structured as follows, according to HOU:

(25) [NP John only [VP introduced BILL_F to SUE_F]]

$$VP \rightarrow \lambda x. \text{only} \{ \text{bill} \cdot \text{sue}, \text{introduced}(x, \text{bill}, \text{sue}) \}$$

$$NP \rightarrow \text{only} \{ \text{bill} \cdot \text{sue}, \text{introduced}(\text{john}, \text{bill}, \text{sue}) \}$$

The sentence in (25) presents two focused items, namely ‘bill’ and ‘sue’. Their meanings are extracted from the sentence S. Hence, the functor ‘only’ is true if and only if the terms ‘bill’ and ‘sue’ are elements identified within the codomain of the function ‘introduced’, that is the individuation of two NP where these terms are the only possible substitution to ensure the correctness of the sentence.

In regards of non-constituent focus, Pulman adopt the same analysis used for the interpretation of discontinuous foci, which form two separate constituents as in (25). Then, the meaning of focused part ‘sue kissed’ is computed following two passages: firstly, he derives the meaning of the whole sentence, solving an equation of the form in

(26) where the foci are paralleled, and, later, the meaning of the two separate elements, namely 'sue' and 'kissed'. The result is a proposition similar to "John³⁴ had the property of being kissed by Sue, as opposed to...".

(26) B (F1 · F2) = S
& context (C) = $\exists x \cdot \text{kiss}(x, j)$
& P (A1 · A2) = $\exists x \cdot \text{kiss}(x, j)$
& parallel { B · (F1 · F2), P · (A1 · A2) }

Since the path followed for the interpretation of both multiple foci and subsequent foci, but functioning as a single, is ultimately the same, Yatabe and Hayakawa (2005) consider this theory not adequate in doing justice to prosody-syntax relations.

4.3.2 | GIVENNESS AND AVOIDF

In the analysis proposed in Schwarzschild (1999), constraints, which relate the placement of accents and matters of interpretation at LF, are identified. Focus prominence results to be deeply bounded with the givenness notion so that the 'given'/'new' status of information plays a key role in the identification of intonational patterns. We can say that Schwarzschild's theory is based on a "sophisticated" notion of givenness (Yatabe & Hayakawa, 2005) due to the fact that 'given' and 'new' information entertain a relation that is not dichotomic, but that, in these terms, allows different degrees of interpretation. Such scalar connotation at the interpretative level is expressed through different stress layouts at the phonological level.

Following Halliday (1967), he suggests the necessity to refer uniquely to the givenness notion because of its straightforward interpretation. In fact, newness can neither be considered a unitary notion bearing distinct features or, simply, as a complementary concept of 'given'. So, how can he account for prosodic asymmetries?

³⁴ The pronoun 'him' has been resolved, as in Pulman (1997).

AvoidF is a constraint he introduces to face cases in which a portion of sentence is in all respects prominent under a prosodic point of view. Since *AvoidF* states the abstention of speakers to stress marking lexical material, givenness entertains a relation with a low prominence. In this term, “F-marking is used sparingly and in a way that preserves a perfect correlation between Givenness and lack of F-marking” (Schwarzschild, 1999, p. 160), therefore not every F-marked item bear novelty. Thus, constraints on F-marking can be resumed as follows:

(27) Givenness

If a constituent is not F-marked, it must be GIVEN.

AvoidF

F-mark as little as possible, without violating Givenness.

(Schwarzschild, 1999, p. 156, (32), (34))

Following previous accounts on F-marking and focus projection (Selkirk, 1995), he assumes that (i), when a word bears accent, it is F-marked, (ii) the F-marking of a *head* licenses a phrase’s F-marking, and (iii) the F-marking of an *internal argument* licenses the head’s F-marking (repeated here the F-assignment Rules in (13)). Considering such assumptions plus Schwarzschild’s constraints on F-marking, we can examine examples, where, given a similar context, different lexical items are focused.

(28) {a. What did John_i’s mother do?}

b. She [[PRAISED]_F him_i]_F.

(Schwarzschild, 1999, p. 145, (9))

(29) {What did Mary do?}

b. She [[praised]_F [her [BROTHER]_F]_F]_F.

(Schwarzschild, 1999, p. 144, (7))

In (29), the main stress is located on ‘brother’, therefore it projects its focus pattern to the whole NP ‘her brother’, which, in its turn, licenses VP focusing. Moreover, since ‘brother’ occupies the most embedded position, it is consistent with the Null Theory

(Cinque, 1993). Even in (28), F-marking on 'praised' allows the extension of the focus projection on VP 'praised him'. Both in (28) and (29), but also in the following (30), it is worth notice that the F-marked constituents correspond to the answers to their related wh-questions.

- (30) a. Who did John's mother praise?
b. She praised [HIM]_F.

(Schwarzschild, 1999, p. 145, (11))

Schwarzschild points out that the difference between (28) and (30) stands in the fact that the elements 'she' and 'praised' in (30b) both have coreferent items in (30a), respectively 'John's mother' and 'praise'. Furthermore, he states that some relation must undergo amid f-marking and embeddedness.

The main point achieved in his theory states the detachment of F-marking from matters of syntax. Basically, he demonstrates that a higher node can be F-marked even if it does not entail a relation in terms of focus projection with lower nodes.

- (31) {Jack said the American President drinks. What did Gilles_i say?}
a. he_i said the FRENCH President drinks.
b. HE_i said the FRENCH President drinks.

(Schwarzschild, 1999, p. 168, (54))

Since both (31a) and (31b) are pertinent answer to the question in brackets and 'President' do not have to be accented due to its given status, it is possible to assert that lexical items are freely F-marked in respect to the focus basic rule and the constraints on Givenness and AvoidF.

Assuming that rules of focus projection are too constrained, and that syntax influences much less than what we might think, prominence asymmetries on heads and arguments must be adjusted within the broader relation between information structure and accents. Thus, the stronger generalization possible claimed in this sense by Schwarzschild (1999, p. 170, (59)) says something about the quality of this relation:

(32) HeadArg

A head is less prominent than its internal argument(s).

Consequently, the VP's head 'praised' in (29) results F-marked but it does not bear the main stress of the sentence, which is located on its argument 'her brother'. Again, within the VP argument, the NP's head 'her' results less prominent of 'brother'.

In Schwarzschild, a further differentiation is evidenced, that is between Foc-marking and F-marking. It results that they bear different stress patterns due to their different syntactic positions. Once again, we confront (29) and the sentence here below:

(33) {John cited Mary} but he DISSED_{F1} SUE_{F2}.

(Schwarzschild, 1999, p. 170, (60))

'Dissed' is labelled as Foc-marked, therefore it must be prominent, since it is not dominated by another F-marked node, as it happens in (29). In other words, nevertheless 'praised' is F-marked, it can optionally entail accentuation, but 'dissed' is obligatorily accented due to its non-given status.

Moreover, a whole sentence, if uttered 'out of the blue', is, in a certain sense, F-marked, then it is necessary that a word amid each phrase bear an accent. Foc-marking an item, in this case, even if it would mean to move against the AvoidF constraint, appears to be possible by following the HeadArg constraint. Therefore, the Foc-marked item within a F-marked phrase, or sentence, should be the internal argument(s), as in (34).

(34) [[the rising of the TIDES_F] depends upon [the MOON_F being full]]_{F-marked}

Büring (2012) shares the same opinion. On one hand, he states that a sentence with an ostensible unmarked intonation presents a F-marking pattern throughout the whole duration of the utterance (wide focus). On the other hand, he accounts for properties, in terms of intonation patterns, of narrow foci, i.e. foci located on a portion of a sentence. Thus, the presence of narrow foci in a sentence with a canonical word order is signalled only by matters of phonetics, such as pitch accents, and more than one focused item can be present within the same utterance.

(35) (Who wants tea, or coffee?)

[KIM]_F wants [TEA]_F.

(36) (What happened to the book?)

[Michela] sent it [back] to the [LIBRARY].

(Büring, 2012, pp. 114, 115, (20a), (21b))

In both (35) and (36), examples of discontinuous foci are presented. Firstly, foci in (35), namely ‘Kim’ and ‘tea’, cannot be accounted as a unique focus in a deep structure because they perform two sharply distinct functions. Thus, both Givenness theory (Schwarzschild, 1999) and High Order Unification theory (Pulman, 1997) can provide an explanation to this phenomenon. On one hand, according to AvoidF constraint, the verb ‘wants’ must be deaccented, since it has a coreferent in the question; furthermore, the elements ‘Kim’ and ‘tea’ must be F-marked because nothing within the given context entails neither that Kim would like to have some tea nor the presence of Kim. On the other hand, (35) can be compared to the VP in (25) without the complication represented by the focus-sensitive operator ‘only’. Hence, the representation would be “wants(kim · tea, wants(kim, tea))”, where the meaning of the focused items is extrapolated from the context via HOU mechanism.

As far as (36) concerns, the presence of three F-marked items is detected, namely ‘Michela’, ‘back’ and ‘library’, but only the last one is Foc-marked, according to Büring (2012) and Schwarzschild’s (1999) constraints. Conversely, it seems more difficult inscribing the presence of the first two items into the HOU theory since it considers focus a discrete unit. In Pulman (1997), lexical items with a definite prominence patterns appear only, and no other degrees of prominence, such ‘Michela’ and ‘back’ have, seems to be covered. Technically, it appears to be plausible boundary, since HOU is a categorial grammar theory, and the elements which participate in the composition of a category have the property to be discrete and sharply identifiable.

4.4 | MARKEDNESS, PROMINENCE AND NON-CONSTITUENT FOCUS

Markedness in linguistics is meant to be a cover term for several phenomena pertaining to different linguistic domains, and it has been adopted by the Prague School Structuralism first and the Generativism later. If the former maintains a distinction between phonological and semantic markedness, the latter views markedness as functional to language acquisition, in the sense that a language is acquired through the ability of perceiving a shift from the norm (Battistella, 1996). The core idea that relies in both conceptions of markedness is the existence of one entity, the counterpart of this entity, and an asymmetrical correlation between them. This asymmetry can emerge in different fields and can vary also in the nature of their differentiation – Haspelmath (2006) identified twelve senses of markedness subsumed under four general categories, namely markedness as complexity, as difficulty, as abnormality and as a multidimensional correlation. As we saw in relation to the position of lexical items in a sentence, a so-called standard word order characterizes every language so that a shift from the normalcy, which in its turn bears a particular meaning, can be detected.

Focus, in a broad sense, appears only as a marked feature within a sentence, standing out from the utterance always by matters of prosody and occasionally by syntactic structure. In the framework sketched by Haspelmath (2006), focus as a marking strategy falls under ‘sense 4: markedness as a phonetic difficulty’ and ‘sense 11: markedness as deviation from default parameter setting’ for what concerns to syntactic structure. Furthermore, as an evidence that markedness is a largely used category in focus investigation, we can consider once again Selkirk’s (1986) focus assignment rules reported in ((1), ch.3), namely they encode a system for the identification of an F-marked constituent and the description of how markedness acts through the sentence.

The lurking question now is whether ‘markedness’ represents a significant and essential category in general or just a confusing way to describe linguistic phenomena, as an opaque glass blurring the view outside. A point in favour to the dismissal of the term ‘markedness’ comes from Haspelmath (2006), who highlights the fact that it is always available a more precise term, which unambiguously refers to a specific linguistic event. Markedness, in his view, deals mostly with the notion of ‘frequency of use’ turning out to correlate more with performance than with competence. Hence, the actual conception

of the term can be reconducted to an intuitive and metalinguistic conception, and it can no longer be a valuable category within linguistic research.

Another argument against markedness, with respect specifically to focus, is proposed by Büring (2006). Following the path proposed in Schwarzschild (1999) about the fact that focus projection rules are too constrained, Büring sets up a theory based on a *Focus Prominence Rule*, reported here in (37), instead of F-marking.

(37) **Focus Prominence**

Focus needs to be maximally prominent.

A prosodic category C that contains a focussed constituent is the head of the smallest prosodic unit containing C.

(Büring, 2006, pp. 20, (45))

Taking prominence as a starting point is crucial, since it is possible to predict, firstly, focus occurrence from prominence (while vice versa is not plausible) and, secondarily, the distribution of prenuclear accents. Consequently, by starting from prominence we can derive default prominence, that is not obligatorily bounded with focus, and then focus accent, following a logical progression. In this view, syntactic patterns of focus and topic are subsumed to broad rules of (default) prominence assignment, hence label 'F-marking' is simply avoided since it is superfluous.

In conclusion, a theory of focus that aims to be acceptable must be as broad as possible and it must be able to predict non-standard cases of occurrence, such as the four kinds of non-constituent foci viewed in this section. In this case 'broad' does not stand for 'inaccurate', but, on the contrary, it would be inclusive and able to account for both cross-language and language-specific aspects of focus. Furthermore, non-standard cases we are talking about regard the logic level, that is formal semantics, which we argued in the previous chapter to be universal. In fact, while focus realization as non-standard constituents can occur only in some languages – by means of language specific patterns, such as non-mandatory deaccentuation of given elements in Italian –, their semantic interpretation does not change.

5 | ITALIAN NON-STANDARD FOCUS

We have considered, so far, some general properties of Information Structure and focus, presenting an overview on some typological, prosodical, and syntactical controversies within the linguistic debate, and we have viewed different approaches to deal with them. Furthermore, we have followed the idea of a unified, although with several variants, account on focus at a semantic level of higher-order logic. This kind of treatment of focus can fit both cases of focused constituents and non-constituents, and it provides a starting point of analysis of crosslinguistic variations. Thus, is the formal semantic model of focus valid for languages other than Germanic languages? And, if this model is correct, how can we account for crosslinguistic variation? Undoubtedly, both Alternative Semantics and Structured Meaning are built on data from English and German, with less evidence from other languages.

In the following chapter, we consider whether it is possible to detect non-constituent focus phenomena in Italian and why these phenomena are, conversely, not so common than in Germanic languages. If, on one hand, focus below the word level is rarely detected and almost only in metalinguistic contexts, we consider the *Uniqueness Requirement*, proposed by Bocci (2013) as the major constraint working in Italian, through which multiple foci are blocked. Furthermore, we analyse some coordinative constructions that can give rise to multiple instances of focus, such as gapping, edge coordinations, and negative tags, and we consider if the uniqueness requirement works for multiple wh-questions as well as for focus. Hence, we briefly consider properties of focus in Modern Eastern Armenian, in order to provide further evidence on how crosslinguistic variation works.

5.1 | ON UNIQUENESS OF ITALIAN FOCUS

The assumption that Romance languages, and Italian in particular, require a unique and non-recursive instance of focus has been noted by Calabrese (1992), Vallduvì (1992), Vallduvì & Zacharski (1994), Rizzi (1997) and Bocci (2013). This requirement avoids in first place multiple foci and discontinuous focus, and it is clearly in discordance with accounts of focus interpretation which involve a focus-background partition (von Stechow, 1991; Krifka, 1991; Rooth, 1992). In fact, the introduction of a focus-sensitive operator, such as *only*, requires a scope, namely a focused item associated with it. Therefore, the occurrence of multiple foci is explained by alternatively analysing each focused item with the operator, producing two distinct, but bounded, focus-background contexts, such that their combined truth-conditions provide the truth-condition of the whole sentence. Moreover, operators and scopes can be nested, that is a second occurrence focus which appears within the scope of the main focus, as in (1).

(1) a. Eva *only* gave xerox copies to the GRADUATE STUDENTS.

b. (No,) [PETER]_F *only* gave xerox copies to the [graduate students]_F.

(Partee, 1991, p. 179)

Partee (1991) claims that, while in (1a) 'graduate students' is identified as the focused constituent due to intonation, the disambiguation of (1b) is provided by the context of (1a). Hence, 'Peter' represents the first occurrence focus, which bears the main pitch accent and a contrastive interpretation. Furthermore, she points out that 'graduate students' in (1b) is focused as well, even if it does not bear a pitch accent. This kind of second occurrence focus, or nested focus, is cued only by metrical prominence since it cannot be pitch accented and given at the same time.

Another problem is that focus-sensitive operators behave differently in Romance and Germanic languages. The Italian *Solo* 'only' presents different distributional constraints from its English counterpart, that is the impossibility to occur before an inflected synthetic verb, such in the example (2a). Therefore, the largely debated case 'Bill

only introduced Bill to Sue’ does not have an immediate correspondence in Italian and the truth-conditional ambiguity produced to the structure *only*-VP cannot be reproduced. In this regard, *solo* can occur between the inflection and the past participle, as in the example (2) below:

(2) a. *Hai saputo che Lea ha invitato solo la SORELLA di Maria?*

‘Have you heard that Lea has invited only the SISTER of Maria?’

b. ?? *Ti sbagli. [PIETRO]_F ha invitato solo la [sorella]_F di Maria.*

‘You are wrong. PETER has invited only the sister of Maria.’

(Bocci, 2013, pp. 66, (94))

Taking into consideration the construction in (2) as the parallel of (1), the answer (2b) is still considered very uncommon with the intonational patterns presented and it is worth nothing if *solo* is associated with *sorella* or the whole constituent *la sorella di Maria*.

In this framework, the uniqueness requirement proposed by Bocci (2013) offers a solution to the marginal occurrence of multiple, nested and second occurrence foci in Italian in favour of default intonational patterns. Moreover, he argues that the partition focus-background adopted for the interpretation of associations with focus and the licensing of focus recursiveness in Germanic languages does not stand for Romance languages. Nevertheless, as we will see further on in details, some multiple instances of focus are allowed in Italian. Those cases involve structures of coordination, correlative constructions, such as *not only/but also*, and negative tags, in which focus is contrastively interpreted.

Despite evidence in support of uniqueness as far as Italian concerns, we may wonder if the observable differences between Romance and Germanic languages are ascribable solely to language-internal variables, which produce the existing crosslinguistic variation. If a uniform semantic background, in the sense of a higher-order logic, is available for every natural language, differences stem at some level from the properties that every language own. Hence, the way of realizing discourse-related categories, such as givenness, varies depending on language-specific parameters. As an example, the fact

of apparent³⁵ multiple or nested foci in English can be reconducted to a phonological requirement of destressing of given. In Italian (and Romance languages in general), this requirement does not stand and, hence, prominence of more than one item is avoided (Vallduvì & Zacharski, 1994).

5.2 | ITALIAN FOCUSED MORPHEMES

Focused morphemes will be briefly considered here, since the observations made in §4.1.1 are largely valid for Italian as well. Donati and Nespor (2003) argue against the occurrence of information focus below the word level in Italian, conversely to contrastive focus, which is allowed to have a domain as large as a morpheme (as in example (3)). In their view, a morpheme as part of a compound cannot be informative in the context of a sentence.

- (3) Ho sempre pensato che Giovanni fosse ANTIfascista.
'I always thought that John was anti-fascist.'

Furthermore, Brunetti (2004) points out that focused morphemes are infrequent, if not impossible, due to pragmatic reasons since their occurrence within an answer is strictly bounded on the posed question. Contrarily, as Artstein (2004) argues for English, there is no apparent reason to presuppose the impossibility of such focusing events to take place. This is the case of focused morphemes in Italian which are broadly associated with a contrastive interpretation. Contrastiveness, in this case, evokes alternatives within a metalinguistic discourse. In fact, the purpose targeted by the speaker is mainly of correction. In addition, the fact that a morpheme carries the main pitch is not in contrast with the uniqueness requirement of focus in Italian.

³⁵ Differently from Bocci (2013), Vallduvì and Zacharski (1994) argue against recursiveness of focus in Germanic languages as well as in Romance languages.

5.3 | ITALIAN MULTIPLE FOCI

Italian only marginally allows constructions in which two elements are focused within a same sentence. While focusing below the word level occurs only in case of metalinguistic correction, two focused constituents can occur in the same utterance if a coordination structure is involved. In the next sections, we will see those cases which involve multiple instances of focus, namely gapped constructions, edge coordinations (Bianchi & Zamparelli, 2004) and negative tags in association with contrastive focus (Bocci, 2013).

More specifically, *elliptical structures* offer a fertile ground for studies on focus. Since Ellipsis is sensitive to focus, it is possible to reconstruct several syntactic constructions derived from ellipsis through the presence of a focus feature (Gengel, 2007). Here, we will concentrate on those derivations which result to be relevant to Italian multiple instances of focus.

5.3.1 | FARMER'S SENTENCES

As discussed before, a plausible explanation to the infrequency of multiple/discontinuous foci and nested focus is provided by the *uniqueness requirement* of focus in languages such as Italian (Bocci, 2013), which basically prevent recursion in focus constructions. Before discussing uniqueness, we will view the (uncommon) Italian counterparts to the cases of non-constituent focus examined in the previous chapter.

As for multiple/parallel foci, they are possible due to the deaccenting property of context-given elements that Germanic languages present. In opposition, Romance languages do not require a massive deaccentuation of given or a higher degree of prominence for new information (Ladd, 1996). Typically, Italian sentences pronounced

out-of-the-blue are uttered with default prominence pattern, in which no focus effect can be detected. Bocci (2013) examines a widely discussed example from Rooth (1992) (reported here in (4)), where the adjectives *American/Canadian* are considered two parallel foci with a contrastive interpretation.

(4) An AMERICAN farmer was talking to a CANADIAN farmer.

Bocci (2013) points out, firstly, the difference between Italian and English order of adjectives and nouns. In fact, while English adjectives usually precede nouns, in Italian it is the opposite, except for ordinal adjectives. Hence, he compares (4) with a similar Italian construction that involves ordinal adjectives and he also provides a context in which the Italian sentence in question can be interpreted as the beginning of a joke, as it happens for (4).

(5) {*Allora, siamo al mondiale di formula uno.*}

{‘So, we are at The Formula One world championship.’}

Il primo classificato dà la mano al terzo classificato.

‘The first place driver shakes hands with the third place driver.’

{*Questo lo guarda e gli dice...*}

{‘The latter looks at the former and says...’}

(Bocci, 2013, pp. 51, (84))

Although the partition of focus-background is not modified by the ordinal adjectives, no focus effect is, actually, detected within the Italian sentence, which can only be pronounced with a default prominence pattern, namely with the nouns ‘*classificato*’ presenting a higher degree of prominence compared to the adjectives ‘*primo*’ and ‘*terzo*’.

Secondarily, Bocci highlights the impossibility to take trace of the prosodic differences through a Rooth-style account even if Alternative Semantics requires the focus to bear a pitch accent. In this regard, as we saw before, the Focus Prominence Rule (Büring, 2006) instead of Selkirk’s (1995) account seems to grasp better both inter and

intra-linguistic variables. On one hand, Focus Prominence leaves open the possibility that the pitch accent associated with focus is not the main pitch accent of the whole sentence, but only relatively to its domain. On the other hand, since it is context-bounded and can be associated with different degrees of accent's strength, it accounts also for default prominence patterns. Moreover, specifically for Italian, "if the prenominal adjective is pronounced as a more prominent than the noun so as to induce a focus interpretation on the adjective, no other PA [...] can be associated with the rest of the sentence" (Bocci, 2013, p. 59). This is the case of metalinguistic correction, where multiple foci are allowed only if the context requires them as a strategy of clarification.

- (6) **[Uno [STUDENTE]_F di chimica] ha chiesto aiuto a [un [PROFESSORE]_F di chimica].*
 'A student of chemistry asked advice from a professor of chemistry.'

(Bocci, 2013, pp. 60, (89))

- (7) *Uno studente di chimica ha chiesto aiuto a un PROFESSORE di chimica.*

(Bocci, 2013, pp. 61, (90))

Generally, prominence patterns as in (6) are only plausible in a context in which the speaker is intended to correct an erroneous instance, while (7) presents default prosodic patterns that can be associated to out-of-the-blue contexts. Considering once again the notion of Givenness as in Schwarzschild (1999), which states that every constituent not F-marked is given, clearly this rule does not apply for Italian. In fact, following Schwarzschild, the prosodic patterns in (7) are expected only if 'studente' is linked to a coreferent in the context. Conversely, (6) is supposed to have patterns associable with a newly uttered sentence.

5.3.2| GAPPING

Gapping is part of the large set of elliptical structures and it is a phenomenon common for both English and Italian. Ellipsis, in general, consists in a mismatch between what a speaker says and what the hearer understands, namely an apparent discordance between sound and meaning. As we know about the T-model of grammar, both PF and LF must reach Full Interpretation in order for the sentence to be felicitous (Chomsky, 1995), therefore several efforts have been made by scholars to solve such structures in terms of Generativism. Two are the main structural approaches which account for ellipsis. The first one views the lack of elements in the output as a deletion that takes place at the PF level and it is justified by the presence of a parallel antecedent (Merchant, 2001). Conversely, in the second approach a null syntactic element that substitutes the elided constituent is present as a LF-copy of the antecedent (Wilder, 1994; 1997).

Gapping sentences have a remnant, which is interpreted as contrastive, but they do not have the finite auxiliary fronting the site of ellipsis, in contrast with pseudogapped sentences. While English allows more elliptical structures, such as VP-ellipsis and pseudogapping, in Italian only gapped sentences are attested (Hoeksema, 2006; Bocci, 2013).

- (8) Giovanni ha visitato Berlino a maggio e Parigi a giugno.
'John has visited Berlin in May and Paris in June.'

Nevertheless, multiple instances of focus in gapped sentences seem to occur only when a context is provided. In the case of out-of-the-blue sentences, along with Bocci's (2013) assumption, default prosodic pattern is preferred, as in (8).

- (9) a. A chi hai regalato le tue moto?
'To whom have you given your motorbikes?'
b. L'Honda l'ho regalata a Michele e la BMW a Leo.
'The Honda I have given to Michele and the BMW to Leo.'

(Bocci, 2013, pp. 69, (98))

In the example (9), 'Honda' and 'BMW' are identified by the question in (9a) as topics. Thus, each correlate of the gapped structure contains a focused constituent, namely

'Michele' and 'Leo', which bears a rising pitch accent L+H*. Moreover, this kind of prosodic pattern is associated in Italian with contrastiveness. This fact is in line with Winkler's (2005) hypothesis that contrastive focus on remnants is licensed by the deaccentuation of given material in English elliptical constructions. Further evidence in Germanic languages for a contrastive interpretation of remnants in pseudogapping is provided by Gengel (2007) and Aelbrecht (2010).

5.3.3| EDGE COORDINATIONS

While in Italian, conversely to English, multiple/discontinuous and nested foci are banned, coordinative structures within which two constituents bear prominence, are allowed. Bianchi and Zamparelli (2004) analyse a subcategory of coordinative structures, namely focus-related correlative constructions, which they call *edge coordinations*. These structures are formed by two constituents that maintain a coordinative relation with each other by a pair of elements, such as:

- Negative particle and adversative conjunction ('*non*'/'*ma*', not/but).
- Negative particle, adversative particle plus two adverbials ('*non solo*'/'*ma anche*', not only/but also).
- Two temporal adverbs ('*prima*'/'*poi*', first/then, '*ora*'/'*ora*', now/now).
- Italian equality adverbials ('*tanto*'/'*quanto*', as well as, lit. that-much/how-much).

Such elements usually coordinate two DPs and they do not have to occupy a fixed position. Bianchi and Zamparelli distinguish four word-orders that can be identified amid pseudo-coordinations, which involve a negative particle and an adversative conjunction:

1. *Adjacent final*:

(10) John invited not (only) Bill, but (also) Sue.

Giovanni ha invitato non (solo) Bill, ma (anche) Susanna.

2. *Adjacent initial:*

(11) Not (only) BILL, but (also) SUE John decided to invite.

?Non (solo) BILL, ma (anche) SUSANNA Giovanni ha deciso di invitare!

3. *Non-adjacent final:*

(12) a. John does not invite (only) Bill, but (also) Sue.

b. Giovanni non ha invitato (solo) Bill, ma (anche) Susanna.

4. *Non-adjacent initial:*

(13) not (only) Bill does John invite, but (also) Sue.

Non (solo) Bill, Giovanni ha invitato, ma (anche) Susanna.

In (10) and (11), the two DPs are adjacent, and they form a continuous string; conversely, the DPs are separated in (12) and (13). From a prosodical point of view, a strong stress pattern is associated with the word order of (11).

Focus, along with conjunction reduction, represents the key element for selecting both correlates. On one hand, different properties correspond to different word orders, i.e., the order of the pseudo-coordinated phrases. On the other hand, the presence of adverbials can increase the acceptability of a sentence in both Italian and English. Taking into consideration adjacent final and non-adjacent final orders, some of their properties are listed below:

a. *Adjacent:*

1. Both correlates must occur to have a full-fledged sentence.

(14) a. *John invited not (only) Bill (, but (also) Sue).

b. *Giovanni ha invitato non (solo) Bill (, ma (anche) Susanna).

2. The elliptical, or elided, verb must have the same phi-features of the antecedent, even if discordance in gender can be occasionally accepted.

(15) a. ??È arrivato non Giovanni, ma ~~sono arrivati~~ Bill e Susanna.

be-3SG arrived-MSG John but ~~be-3PL arrived-MPL~~ Bill and Sue

b. ?È arrivato non Giovanni, ma ~~è arrivata~~ Susanna.

Be-3SG arrived-MSG John but be-3SG arrived-FSG Sue

3. An adjunct constituent between the two pseudo-coordinated phrases is marginal but can be accepted if it has a parenthetical intonation.

(16) a. ??Giovanni ha invitato non Bill [al cinema], ma Susanna.
b. ??John has invited not Bill at the cinema, but Sue.

4. Plural agreement in case of two subjects is marginally accepted.

(17) a. È andata a trovare Giovanni non solo Maria, ma anche Susanna.
Be-3SG gone-FSG to see John not only Mary but also Sue
b. ?Sono andate a trovare Giovanni non solo Maria, ma anche
be-3PL gone-FPL to see John not only Mary but also
Susanna.
Sue

b. Non-adjacent:

1. The second correlate can be omitted.

(18) a. John does not invite (only) Bill (, but (also) Sue).
b. Giovanni non ha invitato (solo) Bill (, ma (anche) Susanna).

2. Verbs of the two correlates can mismatch in phi-features.

(19) a. Non Giovanni è arrivato, ma ~~sono arrivati~~ Bill e Susanna.
not John be-3SG arrived-MSG but be-3PL arrived-MPL Bill and Sue
b. Non Giovanni è arrivato, ma ~~è arrivata~~ Susanna.
not John be-3SG arrived-MSG but be-3SG arrived-FSG Sue

3. An adjunct constituent between the two pseudo-coordinated phrases is accepted.

(20) a. Giovanni non ha invitato Bill al cinema, ma Susanna
b. ?John hasn't invited Bill at the cinema, but Sue.

4. Plural agreement in case of two subjects is impossible.

- (21) *Non sono andate a trovare Giovanni solo Maria, ma anche Susanna.
 not be-3PL gone-FPL to see John only Mary but also Sue

The last difference between adjacent and non-adjacent word order, that Bianchi and Zamparelli point out, stands in the rising of different presupposition, namely truth-conditions change to the extent of constituents' order.

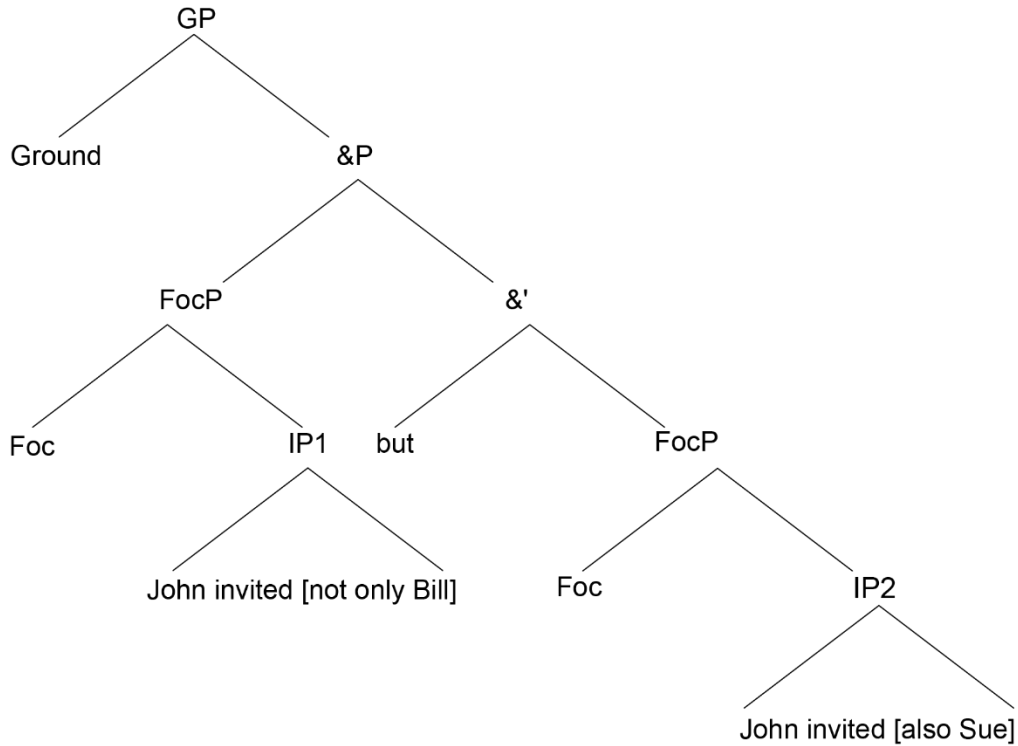
- (22) a. Secondo me, Giovanni non ha invitato Bill.
 according to me, John hasn't invited Bill
- b1. Ti sbagli: ha invitato non solo Bill, ma anche Susanna. ADJACENT
 you're wrong (he) invited not only Bill, but also Sue
- b2. # Ti sbagli: non ha invitato solo Bill, ma anche Susanna. NON-ADJ.
 you're wrong (he) hasn't invited only Bill, but also Mary
- (23) a. According to me, John didn't invite Bill.
- b1. You're wrong, he invited not only Bill, but also Sue. ADJACENT
- b2. #You're wrong, he didn't invite not only Bill, but also Sue. NON-ADJ.

As answers (22b2) and (23b2) show, non-adjacent pseudo-coordinations do not fit contexts as in (22a) and (23a) respectively, but, contrarily, they presuppose that the first speaker, actually, believes what he is denying.

It is clear that such differences in behaviour must correspond to equally different structures in a deeper level. Accounting firstly for adjacent order, Bianchi and Zamparelli (2004) presuppose, according to Rizzi (1997), the existence of a dedicated focus projection in CP and that focused material can be subjected to an overt movement to this position, namely Spec,FocP (Kiss, 1998). Furthermore, they theorize the presence within CP of a unique *Ground Phrase* (GP) right above FocP, and Spec,GP, in their view, is dedicated to given material, which is already present in the common ground. Hence, "the rationale is that this projection should host material which is factored across all conjunct, becoming background for the whole current speech act" (Bianchi & Zamparelli, 2004, p. 317). Moreover, they propose a structure where two FocP are coordinated and, in order to obtain an adjacent order, in the first place, both correlates move to Spec,FocP, while,

secondarily, the two remnant Ips move higher up to Spec,GP. In (24), we report the structure proposed in association with the example (12a).

(24)

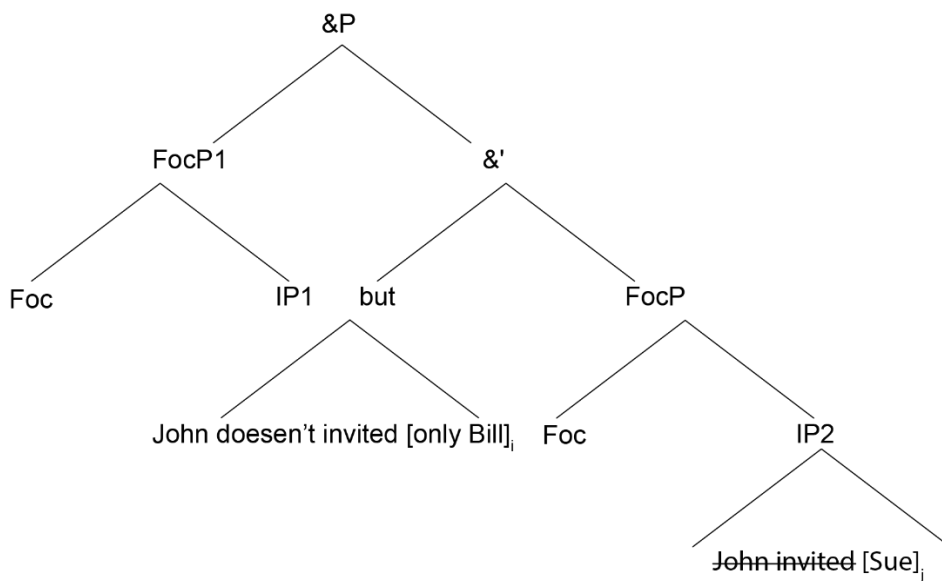


Such movement of remnants, which forms the elliptical construction, is obtained by an *Across-The-Board* (ATB) phenomenon, namely that has a one-to-many correspondences, as for *wh*-extraction mechanism from two clauses to one. Therefore, the double pseudo-coordinated structure of adjacents (i) triggers an overt movement of the first element to FocP and, once the first correlate occurs in this position, (ii) the presence of a second and strictly identical correlate is mandatory, in order to satisfy a requirement of ATB movement.

On the contrary, Ground Phrase is not present in the structure of non-adjacent (here in (25)), where two Focus Phrases only are coordinated, and ellipsis derives from a requirement of parallelism at the PF level. While the ATB ellipsis of adjacent order needs the correlates to be equivalent, non-adjacent order allows a higher degree of differences between functional features with the result to be less subjected to constraints, as shown

in (18), (19), (20) and (21). Moreover, differently to adjacent order where there is an overt movement to Spec,FocP, focalization in non-adjacent order occurs only in-situ. In this respect, adjacent initial and non-adjacent initial orders can be derived from the two final orders through overt movements and PF processes, but this issue I open for further discussions.

(25)



5.3.4| NEGATIVE TAGS

As mentioned before, relatively to Italian, the negative tags are one of the few cases in which multiple foci are allowed. The sentence, typically, is split in three parts: (i) a background, (ii) a contrastive focus and (iii) a negative tag. Interestingly, within the negative tag the prominent pitch is not carried by the focused constituent, but it is placed on the negative particle *non*, literally 'not'. Moreover, negative particles that bear prominence are associated to a rising pitch L+H*, which is sensitively more prominent than the other pitch accents. This kind of pitch is also the same that characterizes contrastive focus, so that a parallelism is formed between CFoc and the negative tag.

- (26) a. [_b Giovanni ha invitato] [_{CFoc} BILL], [_{NeGT} NON Susanna].
 ‘John invited Bill, not Sue.’
- b. [_b Giovanni ha invitato] [_{CFoc} BILL al cinema], [_{NeGT} NON Susanna alla festa].
 ‘John invited Bill at the cinema, not Sue at the party.’
- c. [_b Giovanni vorrebbe] [_{CFoc} invitare BILL al cinema], [_{NeGT} NON andare a lavorare anche oggi].
 ‘John would like to invite Bill at the cinema, not to go to work even today.’

As pointed out by Bocci (2013), prosodic contours do depend on neither the width of constituents nor the limit of the rightmost focused constituent, as the example (26) shows. In this framework, the negative particle must count as focus, since the material that follows it is associated with a less prominent prosodic contour. According with the Focus Defining Rule³⁶, which states that the rightmost pitch accent defines both the focus type and its projection, Italian negative tags are viewed as peculiar prosodic constituents that play a role in building prosodic pattern of a sentence.

5.3.5| WH-ELEMENTS

The relation between questions and their respective answers is clearly fundamental in identifying focused items within discourses. Once again, crosslinguistic differences determine variations in structuring both questions and answers. The difference between multiple foci and discontinuous focus has been discussed in §4.1.3, that is, respectively, answering to a single or multiple wh-questions (Gussenhoven, 1999). Although this still represent a puzzling issue, the occurrence of multiple/discontinuous foci in Germanic languages is supported by the possibility either to have multiple wh-elements in the same question and to focus more than one element in the answer.

³⁶ Cfr. Bocci (2013), §3.2.2.3.

(27) Wer hat was hinsichtlich des Kindes getan?
who have.3SG what concerning the child.GEN done
'who have done what in the regards of the child?'

(28) Who went where?³⁷

As far as Italian concerns, multiple non-coordinated wh-questions, as the German (27)³⁸ and the English (28), are disallowed both in-situ and ex-situ. Considering first ex-situ wh-questions, they can occur if the second wh-element is preceded by a coordinative head *e* 'and'. Taking in consideration again the English example (28), the Italian counterpart is expressed as follows:

(29) *Chi è andato perchè?
'who went why?'

(30) Chi è andato? E perchè?
'who went? And why?'

Interestingly, (30) can be paralleled with elliptical structures since two correlates are involved and an apparent mechanism of deletion takes place. In-situ multiple wh-questions requires, in the same way as direct questions, the presence of a coordinative particle.

(31) a. mi chiedo dove sono andati *(e) [per quale ragione].
To.me wonder.1SG where are.3PL gone and for what reason
'I wonder where they have gone and for what reason.'

(Moro, 2011, p. 390, (2a))

³⁷ Calabrese (1987) points out that such cases in Italian are rarely attested in echoic contexts, namely when a question repeats partially or entirely a preceding utterance.

³⁸ As in example (11a), chapter 4.

As Moro (2011, p. 406) suggests in Italian there is no *wh*-in situ because “when more than one *wh*-phrase occurs in a sentence, a coordinative head intervenes in the left periphery, inducing a clause structure folding and providing a landing site for a subpart of the clausal constituent”. Furthermore, he highlights the fact that a coordinative element is mandatory because Italian has only one position for *wh*-adverbials in a clause. Broadly speaking, this is also the reason why multiple instances of focus are allowed only in coordinative structures in Italian. That is each focused item occurs in its respective clause in compliance with Bocci’s (2013) uniqueness requirement and Rizzi’s (1997; 2013) split-CP. Hence, in the analysis proposed by Moro (2011, p. 408) clausal folding depends on:

- a. *Wh*-phrases to occupy the specifier position of a Foc head.
- b. The existence of only one Foc head per CP field.

Hence, clause structure folding is required by constraints in Italian left-periphery, such those described in Rizzi (1997). Here, as in the previous described cases of gapping, edge coordinations and negative tags, uniqueness of focus is not ascribable only to constraints on prosody, but mainly to Italian syntactic structure (Bocci, 2013).

5.4 | A COMPARISON WITH MEA

Verb second (V2) is a syntactic phenomenon that constraints the finite verb within the second constituent position. V2 construction occurs in languages such as Germanic languages, where English represents the only exception and has a behaviour as V3. Amid Romance languages, there is a reminiscence of this structure in some Rhaeto-Romance languages and dialects, even if it was fairly common in Medieval Romance languages (Holmberg, 2015). Typically, English presents residual V2 characteristics in *wh*-questions that do not need *do*-support (Bayer, 2008).

- | | | |
|------|------------------------|---------------------------|
| (32) | a. John bought socks. | a1. Johann kaufte Socken. |
| | b. *Socks bought John. | b1. Socken kaufte Johann. |
| | c. Who bought socks? | c1. Wer kaufte Socken? |
| | d. *What bought John? | d1. Was kaufte Johann? |

While in German counterparts the verb has its fixed position in the second position and the fronted element can be either a subject or a non-subject (i.e., objects in (32b1) and (32d1)), English requires *do*-support in (32d) and does not allow a fronted object as in (32b). Moreover, only one category can precede the verb in V2 languages, therefore the left-peripheral architecture described in Rizzi (1997) does not apply here³⁹.

An interesting example of V2 language is the Modern Eastern Armenian (MEA), where V2 structures are adopted in order to evidence focus. In Giorgi and Haroutyunian (2020), three different V2 strategies are identified, namely (i) a canonical V2 construction, (ii) a long-distance V2, which is a cleft-like construction but with different properties, and (iii) a low V2 construction that licenses indefinites. As German, MEA has a SOV word order in out-of-the-blue sentences (contexts in (33a) and (34a)) and the verb is realized with a participle and an auxiliary in all indicative forms, aorist excluded.

- | | | | | |
|------|---------------------------------|----------|--------------|--------------|
| (33) | a. Mariam-ə | salor-ə | ker-el | ē |
| | Mariam-ART | plum-ART | eat-PRF.PTCP | AUX.3SG |
| | 'Mariam has eaten the plum.' | | | |
| | b. SIRAN-n | ē | salor-ə | ker-el |
| | Siran.ART | AUX.3SG | plum-ART | eat-PRF.PTCP |
| | 'Siran-foc has eaten the plum.' | | | |
- (Giorgi & Haroutyunian, 2020, pp. 643, (3), (4))

- | | | | | |
|------|------------|-----------|---------|--------------|
| (34) | a. Siran-ə | xnjor-n | ē | ker-el |
| | Siran.ART | apple-ART | AUX.3SG | eat-PRF.PTCP |

³⁹ Holmberg (2015) points out some exceptions to verb in second position rule in some V2 languages, such as polar questions word order, imperatives, declaratives and elliptical sentences word orders.

‘Siran has eaten the apple.’

b. SALOR-n ē Siran-ə ker-el
Plum-ART AUX.3SGSiran.ART eat-PRF.PTCP

‘Siran has eaten the plum-foc.’

(Giorgi & Haroutyunian, 2020, pp. 644, (5), (6))

In both cases in which the focused constituent is the subject (as in (33b)) or the object (as in (34b)), the sentences show V2 order and the foci ‘Siran-n’ and ‘salor-n’ occur in the first position. This architecture, employed also in answers to *wh*-questions, forces the interpretation of the fronting element as focus.

Considering *wh*-questions, the verb must occur in second position as well as the German (32c1) and (32d1). Specifically, what occupies in second position is the auxiliary. Moreover, MEA allows multiple *wh*-questions as in Germanic languages, therefore, in this case, the auxiliary must occur near the rightmost *wh*-adverbial, as in (35). Hence, we can wonder if multiple foci are allowed in MEA as a response to this kind of questions, according to what has been said so far.

(35) Ov inch’ ē ker-el?
Who what AUX.3SG eat-PRF.PTCP
‘Who has eaten what?’

(Giorgi & Haroutyunian, 2020, pp. 646, (21))

Nevertheless, MEA does not make distinctions between the various kind of focus, but the only structure in which is possible to insert a focused item is the one shown in (33b) and (34b), in which focus fronts the other constituents and verb in aorist form occurs in second position⁴⁰. Interestingly and, in some way, coherently, the same word order is employed also in answers to *wh*-questions, blocking the canonical order SOV used in newly uttered sentences, as *wh*-QA pairs in (36) and (37) shown:

⁴⁰ If the verb is a periphrastic form, the focused item or the *wh*-element occurs near the auxiliary. The verb can also occupy a V3 position.

(36) a. Ov ker-av salor-ə?
 Who eat.AOR.3SG plum-ART
 ‘Who ate the plum?’

b1. Siran-ə ker-av salor-ə.
 Siran.ART eat-AOR.3SG plum-ART
 ‘Siran ate the plum.’

b2. *Siran-ə salor-ə ker-av.
 Siran.ART plum-ART eat-AOR.3SG
 ‘Siran ate the plum.’

(Giorgi & Haroutyunian, 2020, pp. 648, (33), (34), (35))

(37) a. Inch’ ker-av Siran-ə?
 What eat-AOR.3SG Siran-ART
 ‘What did Siran eat?’

b1. Salor-ə ker-av Siran-ə.
 Plum-ART eat-AOR.3SG Siran.ART
 ‘Siran ate the plum.’

b2. *Salor-ə Siran-ə ker-av.
 Plum-ART Siran.ART eat-AOR.3SG
 ‘Siran ate the plum.’

(Giorgi & Haroutyunian, 2020, pp. 648-649, (36), (37), (38))

Considering these regularities, Giorgi and Haroutyunian (2020) point out that the same projection in the left periphery is dedicated to focus and wh-operators, even though they admit the possibility of further differentiation among the real positions. Furthermore, they prove that V3 is a base-generated order, therefore the left-dislocated phrase cannot find its landing site in pre-focus position; in V2 order, rather, the auxiliary results to be copied in a left-peripheral position, in order to admit FocP in its specifier position.

MEA also owns a long-distance strategy for focalization that looks like the Italian clefting and a low left-periphery that licenses indefinites. On one hand, long-distance focus in MEA seems to be less constrained than clefting in Italian since it makes no

difference between corrective/contrastive and information focus, and it can either express exhaustivity or not⁴¹. On the other hand, the verb licenses indefinites through movement from low vP, and later it licenses focus by moving to higher position. In this framework, V2 in MEA can be conceived as a strategy to 'mark' focus independently from focus typology and intonation.

⁴¹ In Italian, as pointed out by (Belletti, 2001), only clefting express exhaustivity.

6 | CONCLUSIONS

The challenge that focus poses lies in the large number of linguistic aspects that one must take into account in order to provide, at least, a general overview of the issue. Depending on the point of view, that is morphological, syntactical, prosodical, semantical or pragmatical, a solution to certain issues can be reached, while, inevitably, new ones arise. I do not expect to have provided an exhaustive picture of the problem in issue, but at least to have highlighted some problems that arise when focus of non-constituents is under scrutiny.

I described, firstly, the information structural system, in which focus plays a role as one of the primitives that compose it. IS is conceived as an architecture responsible in solving communicative needs and goals by the modification of a shared Common Ground (Krifka, 2006; Krifka & Musan, 2012). Two are the main conceptions about how and at which level the modelling of the CG take shape: the one resort to the introduction at the syntactic level of formal features which encode information (Chomsky, 1971; 1995; Jackendoff, 1972; Rizzi, 1997), while the other evidences prosodic and pragmatic matters (Halliday, 1967).

Considering, then, focus of constituents, typological matters are analysed. In facts, in every language it is possible to distinguish between different kind of focus, each one related to a specific pragmatic need and occasionally to a specific prosodic pattern. In this regard, data from Italian (Bianchi, Bocci, & Cruschina, 2013) and from Germanic languages (Gussenhoven, 2007) are provided. As for IS, approaches to focus address the problem from a prosody-based (Cinque, 1993; Reinhart, 1995; Zubizarreta, 1998; Samek-Lodovici, 2015), a syntax-based (Brody, 1990; Rizzi, 1997; Frascarelli, 2000; Bocci, 2013) or a unified (Belletti, 2001; Brunetti, 2004) point of view. I highlighted the fact that, while syntax-based accounts fail in explaining pragmatic differences and do not legitimate the focus

feature, prosody-based accounts do not provide explanation for focus movement and an exchange amid the two interfaces, PF and LF, is needed.

Despite the wide variety of focusing strategies and pragmatic uses that can be found in a language, interpretation of focus seems to be unified at the level of formal semantics. Alternative Semantics (Rooth, 1992) and Structured Meanings (Cresswell, 1985; von Stechow, 1991; von Stechow & Uhlmann, 1986; Krifka, 1991; 2006) have the virtue, although with some differences, to give unification to focus at a cognitive level, where meanings seems to be put together in respect of higher-order logic rules. It follows that a primarily contrastive interpretation of focus, as evoking alternatives, at a deeper level seems to be preferable. Further pragmatic differentiation, hence, must be considered as a result of crosslinguistic variation. Such a conclusion is apparently confirmed to data on non-constituent focus so far. Following this framework, different levels of non-constituent focus are pursued, such as morphemes (Artstein, 2004), sequences of focused lexical items that do not form a proper constituent (Yatabe & Hayakawa, 2005; Yatabe, 2006), discontinuous focus and multiple foci (Höhle, 1982; Büring, 1999; 2016; Gussenhoven, 1999).

In light of these developments, I reconsider some notions largely employed in focus research, namely focus projection and F-marking rules. This position is adopted by several scholars, notably Schwarzschild (1999), Gussenhoven (1999), Büring (2006; 2015) and Haspelmath (2006). On one hand, focus projection results to be too constrained to give an exhaustive account of focus phenomena. It is a matter of fact that focus projection, as proposed by Selkirk (1986; 1995), can include given material within the projection, creating an internal contradiction. Hence, a 'focus-to-stress' view, yielding prominence, would be preferable in order to also explain cases of second occurrence focus.

Finally, I considered the case of Italian in relation to non-constituent focus. The main finding, here, is that, while focused morphemes are detected in metalinguistic sentences, Italian allows neither sequences of focused items that do not form a constituent nor discontinuous/multiple foci due to a uniqueness requirement (Bocci, 2013). This requirement, which behaves similarly to *wh*-questions, is caused by prosodic and syntactic constraints, that is the non-recursiveness of Italian focus and the preference for default prosodic pattern. Nevertheless, if multiple foci, as the English ones, are

disallowed, multiple instances of focus occur within structures that can be reconducted to ellipsis and coordination, such as gapping, edge coordinations and negative tags.

Some questions still remain open to further investigation in specific regard of non-constituent focus events in a crosslinguistic variation perspective. Such studies are needed in order to reach a wider point of agreement between languages and a finer comprehension of sentence structuring processes. In particular respect to Italian, an insight of matters of preference of default instead of prominent prosodic pattern is needed. Likewise, synchronic studies on focus and information structure must be conducted to test how the phenomenon in issue varies within the 'same' language.

A last consideration goes to empirical data, which represent, or should represent, the main *corpus* on which linguistic theories seek support and find confirmation. Generally, these data are purely mental exercises and are occasionally proved by factual evaluations. It follows that, if given examples are incorrect, the whole theory lacks reliability. This issue mostly pertains to non-standard constituent focus since it is less studied and, most of all, it is hardly detectable. Therefore, a sharp attention should be paid to such constructions in order to test their occurrence and acceptability.

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