

STRESS-FOCUS CORRESPONDENCE IN ITALIAN*

Commented [KS1]: Resubmission 15 Oct

KRISZTA SZENDRÓI
Department of Phonetics & Linguistics
University College London
kriszta@ling.ucl.ac.uk

1 INTRODUCTION

This paper investigates the syntactic and prosodic characteristics of focused¹ and discourse-linked elements in Italian.

Neeleman & Reinhart (1998) argued that the following principles hold in English and Dutch.

- (1) *Focus Interpretation:*
The focus of a clause is any syntactic constituent that contains the main stress of the intonational phrase corresponding to the clause.
(Following Reinhart 1995:62)
- (2) *Anaphoric Interpretation:*
Material is destressed if and only if it is discourse-linked.
(Neeleman & Reinhart (1998:338))

The examples in (3) and (4) illustrate the proposal for English utterances with neutral intonation.² In (3) main stress falls on the object DP, and as the context questions indicate, the DP object, the VP and the IP are possible foci of the utterance, while the subject DP is not.

* This paper is a considerably shortened and simplified version of Chapters 4 and 5 of my doctoral dissertation. Inevitably, on certain points, the dissertation is more accurate. I am grateful to Ad Neeleman for his commitment to help me to improve my work. For useful comments and discussions, thanks are due to Peter Ackema, Misi Bródy, Dirk Bury, Jenny Doetjes, Paola Monachesi and Tanya Reinhart. I acknowledge financial help from the ORS Award of the British Government, the Newby Trust, the Fox Memorial Trust, the British Federation of Women Graduates, the BFWG Charitable Trust, the 3rd Memorandum of Understanding of NIAS and Going Romance 2000. Ψ

¹ I take focus to be the informationally most prominent part of the utterance, in other words, what is new, or asserted, or emphatic. Thus, focus is a discourse notion on a par with discourse-linking, the latter being used here in the sense of Neeleman & Reinhart (1998). Thus a discourse-linked element is one that is part of the universe of discourse at the time of the utterance and is accessible in Ariel's (1990) sense. Focus is understood in the widest possible sense including new information focus, contrastive focus, narrow and wide focus.

² I use the following notations throughout the paper. The element bearing main stress is spelt in small caps. The focus of the utterance is marked with underlining. Any marked operations are indicated with bold. Destressing is indicated by italics.

- (3) a. What is your neighbour building?
 My neighbour is building a DESK.
- b. What is your neighbour doing?
 My neighbour is building a DESK.
- c. What is this noise?
My neighbour is building a DESK.
- d. Who is building a desk?
*My neighbour is building a DESK.

In (4) we can see that the neutral intonation of the sentence *John saw her* is with main stress falling on the V rather than the object. Neeleman & Reinhart (1998) argue that this is a result of anaphoric destressing of the object. Although stress on the object is acceptable, this is a marked case, where the pronoun is emphatic, contrastive or possibly referring to a less accessible entity.

- (4) a. John **SAW** *her*.
 b. John saw **HER** (not him).

In this paper I shall investigate whether the discourse-marking principles in (1) and (2) hold in Italian as well. Let me start by taking a closer look at the theoretical consequences of adopting principles such as (1) and (2). As I argue in detail in Szendrői (1999, 2001), these principles necessitate direct PF-LF communication in the grammar. In addition, I adopt Nespó & Vogel's (1986) view (contra Reinhart 1995) that the prosodic structure is separate from syntactic structure, although these are linked via mapping rules. This is illustrated by the (partial) model of the grammar shown in Figure 1.

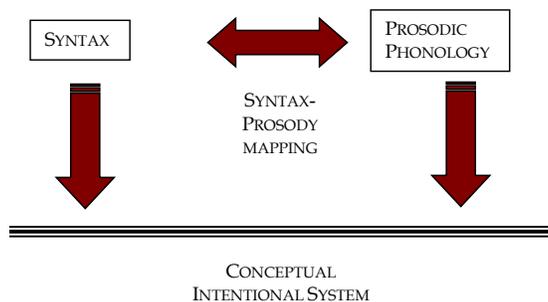


Figure 1: *The architecture of the grammar - a sketch*

Merge and move operations are present in the syntactic module, nuclear stress is assigned in the module of prosodic phonology and the discourse principles (1) and (2) hold at the interface between the grammar and the conceptual-intentional system. These

assumptions derive the correct prosody and interpretation for an unmarked utterance like (3). But what happens if the constituent that is intended to be focused is merged in a position that would not receive focus if the unmarked syntactic, prosodic and syntax-prosody mapping rules apply?

Given the architecture of the grammar put forward in Figure 1, the following three ways are available in grammar to “repair” the focus of the utterance. First, prosody may be invoked. Neeleman & Reinhart (1998) argued that the operation of stress strengthening applies in English, and places main stress on a constituent which is not in the main stress position otherwise. Second, a syntactic operation, movement, may apply to ensure that the element is in focus. I argued in earlier work that this was the case in Hungarian (cf. Szendrői 1999).³ Third, and last, the mapping between the syntactic and prosodic structure can be altered in such a way that the element in question appears at the relevant edge of the phonological domain to receive main stress. I shall argue in Section 3.5 that the special, marked mapping is responsible for the left-peripheral focus construction in Italian. As it is obvious from Figure 1, there are no other modules in the grammar that could be invoked to alter the neutral focus pattern. Thus in this framework we obtain a full typology of marked focus patterns.

In this paper, I will first concentrate on the unmarked utterance in Italian (Section 2; (5a)). I will show how the *Focus Interpretation* principle is satisfied in a neutral Italian utterance. The rest of the paper is concerned with marked utterances in Italian. Italian has three different constructions involving a marked focused element: the right-peripheral (5b), the string-medial (5c) and the left-peripheral focus construction (5d) (Samek-Lodovici 1996). These will be discussed in Sections 3.3, 3.4 and 3.5 respectively.

(5)

- a. Ho presentato Gianni a MARIA.
have-I introduced John to Mary
- b. Ho presentato a Maria GIANNI.
have-I introduced to Mary John
- c. Ho presentato GIANNI, a Maria.
have-I introduced John to Mary
- d. GIANNI, ho presentato a Maria.
John have-I introduced to Mary

Given the discussion of the unmarked case, it follows that there are *three different ways* of obtaining a marked utterance: a syntactic, a prosodic and one that applies at the syntax-prosody mapping. I argue that Italian marked focus constructions make use of these

³ See also Schwarzschild (1999), Büring & Gutiérrez-Bravo (this volume) and Costa (this volume) for similar approaches to focus. The first two of these approaches differ from the latter and the present paper in that they assume the existence of a [+Focus]-feature, but not the independent existence of a Nuclear Stress Rule. The present approach (and Costa) take the opposite position and assume the existence of a NSR, but deny the existence of a [+Focus]-feature.

options as follows. In the right-peripheral case (cf. 5b), a marked focal utterance is obtained by ‘manipulating’ the syntactic component. The string-medial construction (cf. 5c) is argued to be a case of right-peripheral focus together with syntactic right-dislocation of a constituent. Finally, I argue that the left-peripheral focus construction (cf. 5d) involves a special mapping at the syntax-phonology interface. The account is formulated in an Optimality Theoretic framework (cf. Prince & Smolensky 1993) in order to easily account for potential language variation and for variation within Italian.

2 THE UNMARKED UTTERANCE

Antinucci and Cinque (1977) noticed that an Italian utterance with unmarked intonation can be uttered in a restricted set of contexts. The generalisation they made was that if we disregard dislocated or emarginated constituents, the rightmost constituent or any constituent containing that one can be the focus of the utterance.

As it is illustrated in (6), the rightmost PP, the VP that contains the PP, and the IP that contains the VP are all members of the FOCUS SET of the utterance (Reinhart 1995). Thus the Italian sentence in (6a) can be uttered as an answer to the questions in (7a), (7b) and (7c), corresponding to PP, VP and IP foci respectively.

- (6)
- a. Giorgio ha portato un libro a PIERO.
Giorgio brought a book to Piero
 - b. Focus set: {DP_{IO}, VP, IP}

- (7)
- a. A chi ha portato un libro Giorgio?
To whom did Giorgio bring a book?
 - b. Che cosa ha portato Giorgio?
What did Giorgio bring?
 - c. Che cosa ha fatto Giorgio?
What did Giorgio do?
 - d. Che è successo?
What happened?
 - e. *Che cosa ha portato a Piero Giorgio?
What did Giorgio bring to Piero?
 - f. *Chi ha portato un libro a Piero?
Who brought a book to Piero?

(Antinucci and Cinque 1977:130)

Recall that in Figure 1 I have illustrated that three modules of the grammar are responsible for a particular focus interpretation of an utterance: syntax, prosody and the syntax-prosody mapping. The syntax of the unmarked case contains no operations other than merge and feature-driven movement. As for the syntax-phonology mapping,

following Nespor & Vogel (1986), I assume that it happens as follows (cf. also Inkelas 1989, Neeleman & Weerman 1999, Selkirk 1986, McCarthy & Prince 1993).

(8) *Syntax-phonology mapping of phrases (Italian)*

Align the right edge of a phonological phrase with the right edge of a syntactic phrase.

(9) *Syntax-phonology mapping of clauses (Italian)*

Align the right edge of the intonational phrase with the right edge of a clause⁴.

As far as prosodic phonology is concerned, nuclear stress in Italian is assigned as follows.⁵

(10) *Nuclear Stress Rule (NSR) (Italian)*

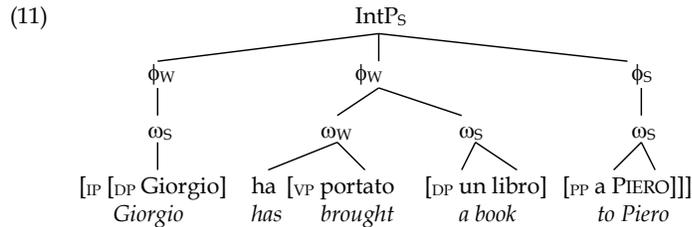
Put main stress on the rightmost phonological word in the rightmost phonological phrase of the intonational phrase.

The unmarked mapping and prosodic rules derive the representation of (6a) in (11). Given the syntax-prosody mapping rules in (8) and (9), the rightmost phonological word in the rightmost phonological phrase is *a Piero*. Given the NSR in (10), *a Piero* will receive main stress. Stress is illustrated in Liberman's (1975) Strong-Weak system.⁶ Given the focus-stress correspondence principle in (1), we derive correctly that (6a) has the focus set indicated in (6b): {PP_{IO}, VP, IP}. Thus the proposed syntax-prosody mapping, the NSR and the *Focus interpretation* principle derive the observation of Antinucci & Cinque (1977) that an utterance with unmarked intonation may have exactly these possible focus readings.

⁴ 'Clause' is understood as the largest A-projection of the V that is lexically filled. Due to the presence of V-to-I in Italian, the 'clause' is the IP. I take domination to be in the strict sense, following Chomsky (1986). Thus IP adjoined material in Italian will not be parsed into the core intonational phrase. As a result, right-dislocated constituents, which are adjoined to IP, fall outside the core intonational phrase according to the mapping principle in (9).

⁵ My approach to Italian stress admittedly departs from Nespor & Vogel (1986), Nespor (1999) and Cinque (1993) in many important respects.

⁶ In Liberman's system main stress falls on the S node that is only dominated by S-s. S and W labels are assigned to the prosodic structure according to the rule in Italian, which says that the rightmost node receives S. The topmost node receives S by assumption.



3 MARKED FOCUS AND DISCOURSE-LINKED STATUS

3.1 The syntax-phonology mapping

I assume that Optimality Theory (OT) (cf. Prince & Smolensky 1993) is appropriate for the discussion of issues concerning the syntax-phonology interface, and certain prosodic questions. In OT, it is commonly assumed that the candidates in any instance of competition share the same lexical material (cf. Grimshaw 1997). As a further assumption I make the hypothesis that candidates are compared under the same interpretation, i.e. taking into account the interpretative principles (1) and (2) (cf. Reinhart 1995, Grimshaw 1997).⁷ The constraint set consists of constraints that regulate the syntax-phonology mapping.

Following Nespor and Vogel (1986) (cf. also Selkirk 1986, Inkelas 1989, McCarthy and Prince 1993, Neeleman and Weerman 1999), I assume that the phonology-syntax mapping is subject to the following constraints.

- (12) Right Align Stress to ϕ = RAS to ϕ
Put phrasal stress on the rightmost phonological word in the phonological phrase.
- (13) Right Align Stress to IntP = RAS to IntP
Put clausal stress on the rightmost phonological phrase in the intonational phrase.
- (14) Left Align Stress to ϕ = LAS to ϕ
Put phrasal stress on the leftmost phonological word in the phonological phrase.

⁷ As we shall see below, this is inevitable, as certain utterances are ungrammatical under a certain focus interpretation (e.g. wide focus), while the same utterance would be grammatical under a different (e.g. narrow) focus interpretation.

- (15) Left Align Stress to $[\text{IntP} = \text{LAS to } [\text{IntP}$
Put clausal stress on the leftmost phonological phrase in the intonational phrase.

The following constraint regulates syntactic movement (cf. Grimshaw 1997). It is violated by movement of a constituent.

- (16) STAY
Do not move!

Finally, the constraint in (17) makes sure that syntactic structure and prosodic structure are aligned in the spirit of McCarthy and Prince's (1993) Generalised Alignment constraints.⁸

- (17) Align $[\text{IntP}] \text{ to clause}] = [\text{IntP}] \text{ to clause}]$
Align the right-edge of the syntactic clause to the right edge of the intonational phrase.

3.2 The unmarked utterance in Italian

I propose the following ranking for Italian⁹. As (19) illustrates, the ranking in (18) gives correct results for an unmarked Italian utterance like the one in (11).

- (18) *Italian*
RAS to $[\text{IntP}] \gg \text{STAY} \gg [\text{IntP}] \text{ to clause}] \gg \text{RAS to } \phi \gg \text{LAS to } [\text{IntP}] \gg \text{LAS to } \phi$

⁸ The symmetric pair of this constraint (cf. i) is most probably also present in the universal set of constraints. I do not include it, however, as it does not seem to have any effect on the data described in this paper.

(i) $[\text{IntP} \text{ to } [\text{clause}$
Align the left-edge of the syntactic clause to the left-edge of the intonational phrase.

⁹ The rankings that account for English and Hungarian are given in Szendrői (2001).

(19) *The unmarked utterance in Italian. See (11) for glosses.*

Focus= IP	RAS to [IntP]	STAY	[IntP] to [clause]	RAS to { ϕ }	LAS to [IntP]	LAS to { ϕ }
\mathcal{C} [IntP { ϕ Giorgio} { ϕ ha portato un libro} { ϕ a PIERO}] [IP [DP Giorgio] ha portato [DP un libro] [PP a PIERO]]					*	*
[IntP { ϕ Giorgio} { ϕ ha portato un LIBRO} { ϕ a Piero}] [IP [DP Giorgio] ha portato [DP un libro] [PP a Piero]]	*!				*	*
[IntP { ϕ GIORGIO} { ϕ ha portato un libro} { ϕ a Piero}] [IP [DP Giorgio] ha portato [DP un libro] [PP a Piero]]	*!					*

3.3 Focus movement in Italian

Neeleman & Reinhart (1998) argued that in English marked focal utterances the NSR is overridden by a special prosodic operation, stress strengthening. I argued in Szendrői (1999) that a syntactic operation, movement, applies and ‘repairs’ focus interpretation in marked focal utterances in Hungarian. As I will now demonstrate, Italian right-peripheral focus constructions are the rightward equivalent of the Hungarian left-peripheral focus movement construction.¹⁰

Italian ensures that the focused constituent appears in the main stress position. Thus, if the direct object is to be focused in a dative construction, the direct object moves to the right-peripheral position (cf. Samek-Lodovici 1996). Let us assume on the basis of the arguments presented in Samek-Lodovici (1996) that it right-adjoins to VP.¹¹ There it

¹⁰ There is a further difference between Hungarian and Italian focus movement apart from their different direction. In Italian, focus movement is not accompanied by movement of the V. The syntactic position of the focused phrase is presumably right-adjoined to VP (cf. Samek-Lodovici 1996). However, given that there is obligatory V-to-I movement in Italian, it is the IP not the VP that represents the ‘clause’ for the syntax-phonology mapping in (9). Thus the focused phrase, which is adjoined to VP, but not IP-adjoined constituents, is mapped into the Intonational Phrase.

¹¹ One might argue that marked focus in Italian does not involve rightward movement of the focus, but rather, leftward movement of the ‘remnant VP or IP’. In principle, this would not effect the argumentation put forward here, as all that matters here is that a movement operation is performed, which violates STAY. Nevertheless, (i) supports the rightward focus movement analysis over a leftward remnant-movement-of-VP analysis. If (i) involved (remnant) movement of the VP/IP to the left, then it would be unclear why (i) is grammatical. It should be ruled out as it involves extraction from a moved element.

- (i) [CP [DP Cosa] [VP ha detto t_{DP}] GIANNI t_{VP}?]
what has said John
 ‘What did JOHN say?’

(Samek-Lodovici 1995: 35, Ex 68b)

picks up nuclear stress. Arguably, one could possibly put main stress on the DP_{DO} while retaining the DP_{DO}-PP_{IO} order by right-dislocating the PP_{IO}. (20b) indicates that if the PP_{IO} is a negative polarity item, then it is not possible to right-dislocate it.

- (20) A: Chi non hai presentato a nessuno?
Who did you not introduce to anybody?
 a. B: Non ho presentato t_i a nessuno GIANNI_i.
I haven't introduced JOHN to anybody.
 b. B': *Non ho presentato GIANNI(,) a nessuno.

As the tableau in (21) illustrates, rightward VP-adjunction of the focused constituent will indeed derive focus on that constituent by the discourse principle (1). This candidate, the first one, violates STAY, however, it satisfies a higher-ranked prosodic constraint. In other words, the ranking proposed for Italian accounts for the fact that Italian prefers stress-driven focus movement (i.e. 1st candidate) to stress strengthening (i.e. 2nd candidate).

(21) *Marked focus in Italian. See (20) for glosses.*

Focus= DP _{DO}	RAS to [IntP]	STAY	[IntP] to [clause]	RAS to { ϕ }	LAS to [IntP]	LAS to { ϕ }
☞ [IntP{ ϕ Non ho presentato a nessuno} { ϕ GIANNI}] [IP Non ho presentato t _{DP} [FP a nessuno] [DP Gianni]]		*			*	
[IntP{ ϕ Non ho presentato GIANNI } { ϕ a nessuno}] [IP Non ho presentato [DP Gianni] [FP a nessuno]]	*!				*	*

Given the stress-focus correspondence principle in (1), one can interpret as focus of the utterance not only the moved DP, which receives main stress, but also any constituent containing that. Thus the VP and the IP are predicted to be possible foci of the utterance in (20a). As the context questions in (22) illustrate, this is wrong. Focus on a moved element is necessarily narrow in Italian.

- (22) a. A': Chi non hai presentato a nessuno?
Who did you not introduce to anybody?
 b. A'':# Che cosa hai fatto?
What did you do?
 c. A''':# Che è successo?
What happened?
 B: Non ho presentato t_i a nessuno GIANNI_i.
I haven't introduced JOHN to anybody.
 Focus set of (22B): {DP, *?VP, *IP}

This, however, can be explained if we assume, following Neeleman and Reinhart (1998), that operations in the grammar are subject to economy. The movement operation that effects the focused element is blocked if it has no effect at the interfaces. In this particular case, the wide readings are unavailable, as VP and IP focus can be obtained at the interfaces *without* moving the focused constituent. Thus, the movement operation is only justified if it derives a focus that was not in the focus set of the original utterance. In this case, therefore, movement of the DP_{DO} is only allowed under narrow, DP_{DO}, focus interpretation.¹²

In Optimality Theory, economy is built into the theory. Thus it is expected that the proposed ranking accounts for the fact that (20a) is not grammatical under a wide focus reading. This is illustrated by the tableau in (23): we can see that VP focus is ruled out in the movement case (i.e. 2nd candidate) by the unmarked utterance (i.e. 1st candidate).

(23) *Marked focus in Italian is necessarily narrow. See (20) for glosses.*

Focus= VP	RAS to [_{IntP}]	STAY	[_{IntP}] to [_{clause}]	RAS to ϕ	LAS to [_{IntP}]	LAS to ϕ
\varnothing [_{IntP} { ϕ Non ho presentato Gianni }{ ϕ a NESSUNO}] [_{IP} Non ho presentato [_{DP} Gianni] [_{PP} a nessuno]]					*	*
[_{IntP} { ϕ Non ho presentato a nessuno} { ϕ GIANNI}] [_{IP} Non ho presentato [_{DP} t _{DP}] [_{PP} a nessuno] [_{DP} Gianni]]		*!			*	
[_{IntP} { ϕ Non ho presentato GIANNI }{ ϕ a nessuno}] [_{IP} Non ho presentato [_{DP} Gianni] [_{PP} a nessuno]]	*!				*	*

3.4 String-medial focus: a case of right-dislocation

How does Italian mark discourse-linked constituents? There are actually two ways to do so. One is less marked; the other surfaces only if the first one is blocked. The less marked way to destress a constituent in Italian is to dislocate it syntactically. In what follows, I will show that clitic right-dislocation is a syntactic construction that serves to this end. I assume a non-movement analysis for these constructions (cf. e.g. Cinque 1990). It will be apparent from the discussion that syntactic dislocation is unavailable for destressing the predicate. In this case, and only in this case, the marked form emerges to ensure that the predicate is destressed. See Section 3.5 for discussion of this option.

The example in (24) and (25) involve so-called right-dislocation (RD) of certain constituents. Antinucci & Cinque (1977) and Calabrese (1993) note that more than one phrase may undergo RD. If this is the case, the right-dislocated constituents may surface

¹² Nothing in this analysis accounts for the general tendency for narrow focus to be contrastive. In fact this is only a tendency, as in Hungarian wide, contrastive focus is allowed in some cases (see Szendrői 2001). What seems to be overall true, rather, is that a moved focus is always contrastive. Why this should be the case is unclear to me.

in any order with no pragmatic or syntactic difference. In all cases, material that undergoes RD is separated from the clause by an intonational break. The intonation of the dislocated material is flat (cf. Rossi 1998:174).

- (24) Chi ha portato il vino ieri?
Who brought the wine yesterday?
 a. Ha portato GIORGIO,, il vino,, ieri.
 b. Ha portato GIORGIO,, ieri,, il vino.
Giorgio brought the wine yesterday.
 (modified from Antinucci & Cinque, 1977:122)

- (25) Che cosa ha dato a Carlo Maria?
What has given to Carlo Maria?
 a. Maria ha dato un LIBRO,, a Carlo.
Maria has given a book,, to Carlo

Following Cinque (1990), I assume that right-dislocated constituents are base-generated outside their clause, in an IP-adjoined position. A corresponding clitic or *pro* bears the theta-role of the predicate. The dislocated constituents are themselves not part of the core clause. Recall that the syntax-phonology mapping constraint in (17) excludes adjoined constituents from the intonational phrase. As a result, right-dislocated constituents are not mapped into the Intonational Phrase corresponding to the clause, if (17) is satisfied. Rather, they are extrametrical on the Intonational Phrase level. The nuclear stress rule does not apply to them, and thus they are destressed. If the *Anaphoric Interpretation Principle* (cf. 2) is right, they should be discourse-linked. Antinucci and Cinque (1977) argued that this is indeed the case.

If an element is right-dislocated, and the syntax-phonology mapping constraints and the prosodic constraints are satisfied, the element that is rightmost within the core clause will receive main stress by the NSR. This is a case of string-medial focus illustrated in (24), (25) and (5c) (Samek-Lodovici 1996). As (26) illustrates, the candidate involving syntactic right-dislocation of the discourse-linked constituent (the first candidate) wins under the proposed ranking. Among others, it rules out the candidate involving a mismatch between syntax and prosody at the clause level (the second candidate). As we shall shortly see, this latter candidate only emerges as the winner, if the predicate is discourse-linked.

(26) *Right-dislocation in Italian. See (25) for glosses.*

Focus= DP _{IO} D-Linked= DP _{IO}	RAS to [IntP]	STAY	[IntP] to [clause]	RAS to { ϕ }	LAS to [IntP]	LAS to { ϕ }
☞ [IntP{ ϕ Maria}] { ϕ ha dato un LIBRO}] { ϕ a Carlo} [IP [IP [DP Maria] ha dato [DP un libro]] [PP a Carlo]]					*	*
[IntP{ ϕ Maria}] { ϕ ha dato un LIBRO}] { ϕ a Carlo}			*I		*	*

[_{IP} [_{DP} Maria] ha dato [_{DP} un libro] [_{FP} a Carlo]]						
[_{IntP} { _φ Maria} { _φ ha dato un LIBRO} { _φ a Carlo}]	*!				*	*
[_{IP} [_{DP} Maria] ha dato [_{DP} un libro] [_{FP} a Carlo]]						

By the *Focus interpretation* principle in (1), the focus on the rightmost constituent within the core IP can be wide. As (27) illustrates, VP and IP focus is indeed possible in Italian in this case. As shown in (28), under the proposed ranking, we derive that wide focus readings are not blocked if a constituent is syntactically right-dislocated.

- (27) a. A: Che cosa ha portato Giorgio ieri?
What did Giorgio bring yesterday?
 b. A': Che cosa ha fatto Giorgio ieri?
What did Giorgio do yesterday?
 c. A'': Che cosa è successo a Giorgio ieri?
What happened to Giorgio yesterday?
- B: Ha portato IL VINO,, ieri,, Giorgio.
Has brought the wine,, yesterday,, Giorgio

(28) *Wide reading with right-dislocation in Italian. See (25) for glosses.*

Focus= IP D-Linked= DP _{IO}	RAS to IntP]	STAY	IntP] to clause]	RAS to _φ]	LAS to [IntP	LAS to { _φ
[☞] [_{IntP} { _φ Maria} { _φ ha dato un LIBRO}] { _φ a Carlo] [_{IP} [_{IP} [_{DP} Maria] ha dato [_{DP} un libro] [_{FP} a Carlo]]					*	*
[_{IntP} { _φ Maria} { _φ ha dato un LIBRO}] { _φ a Carlo] [_{IP} [_{DP} Maria] ha dato [_{DP} un libro] [_{FP} a Carlo]]			*!		*	*
[_{IntP} { _φ Maria} { _φ ha dato un LIBRO}] { _φ a Carlo] [_{IP} [_{DP} Maria] ha dato [_{DP} un libro] [_{FP} a Carlo]]	*!				*	*

To conclude, the proposed ranking accounts for the data involving string-medial focus, in the sense that it accounts for the fact that string-medial foci in Italian can be wide; they are always followed by an intonational pause and discourse-linked material. This has been observed by Calabrese (1993:93) and Samek-Lodovici (1996) among others.

3.5 Left-peripheral focus: the third way

It is documented in the literature (cf. Antinucci and Cinque 1977, Samek-Lodovici 1996, Rizzi 1997, Pinto 1997, Frascarelli 1997) that the following examples contain a left-peripheral focus.

- (29) A: Chi ha cantato?
Who sang?
 B: GIANNI,, ha cantato.
JOHN sang.
- (30) A: Che cosa ha mangiato Piero?
What did Piero eat?
 B: La PIZZA,, Piero ha mangiato.
Piero ate the PIZZA.

Note that an obligatory pause follows the focused element in the preverbal position. Frascarelli (1997) shows that other phonological considerations equally suggest that there is an intonational phrase boundary following the focused constituent (cf. also D'Imperio 1997: 87). I would like to follow Frascarelli's and Samek-Lodovici's insight that the presence of the pause indicates that the material that follows is interpreted as if it was right-dislocated. Samek-Lodovici (1996) proposes that the post-focal material is in fact right-adjoined to IP. In other words, he argues that dislocation applies in the syntactic component. For reasons that are spelt out in Szendrői (2001) (see also Fn 9), I would like to analyse the data differently.

Given that in the analysis presented here the interpretative principles (anaphoric and focal) do not directly refer to syntactic structure, it is possible to have a situation where prosodic extrametricality is disjoint from syntactic dislocation. In the sentences in (29)-(30) the context questions indicate that the whole IP is discourse-linked, with the exception of the focal element. One way to achieve this interpretation is to move the focal element into a left-peripheral position, place the right-edge of the Intonational Phrase boundary right after it, making use of syntactic movement and of a special syntax-phonology mapping rule. Any material that follows, in the cases at hand the remaining part of the IP, will be phonologically extrametrical; unparsed as far as Intonational Phrases are concerned, and thus discourse-linked by the *Anaphoric interpretation* principle in (2).

Thus I would like to argue that left-peripheral focal elements move to the left-periphery in syntax (cf. 19). A special syntax-phonology mapping rule ensures that they are at the right-edge of their Intonational Phrase. This renders the in situ postfocal material, i.e. the remaining part of the IP, discourse-linked. Given that interpretation is read off the phonological structure, it is unnecessary that the left-peripheral movement be driven by a focus feature, or that the position targeted by the movement would be a designated [Spec, FocusP] position.¹³

This is derived by the proposed ranking, as shown in (35). The candidate involving 'prosodic right-dislocation' is the only possible one to express the pragmatic interpretation intended, which discourse-links the predicate and focuses a DP. Destressing or movement could derive focus on the DP_{DO}, but discourse-linking of the

¹³ See Szendrői (2001) for a discussion of the status of the [+Focus]-feature in the grammar.

remaining part of the IP cannot be done either by destressing or by movement: destressing is not available, as the remaining part of the IP itself is not stressed in the unmarked case; movement of the 'remnant IP' would violate the c-command and constituency requirements on syntactic movement.¹⁴

(31) *The left-peripheral focus construction in Italian. See (30) for glosses.*

Focus= DF _{DO} D-linked= IP minus DF _{DO}	RAS to [IntP]	STAY	[IntP] to [clause]	RAS to \emptyset	LAS to [IntP]	LAS to \emptyset
φ [IntP { \emptyset La PIZZA}] { \emptyset Piero } { \emptyset ha mangiato} [IP [DP La pizza] [IP [DP Piero] ha mangiato t _{DF}]]		*	*			*

5 CONCLUSION

This work was based on the assumptions that focus in the grammar is marked prosodically by main stress and that discourse-linking is marked by destressing. Relying on these assumptions I sought to describe the different ways available in the grammar for languages to express focus and discourse-linking in marked utterances. By providing a detailed description of the syntax-phonology interface, of the nuclear stress rule and of the relevant movement and dislocation rules, I arrived at a full typology of marked focus and discourse-linked patterns.

I attempted to show that the various focus and discourse-linked patterns available in Italian can *all* be described by the manipulation of syntax, prosody and the syntax-prosody interface without any recourse to optionality. Finally, I have shown that all of these patterns follow a single ranking of constraints available at the syntax-phonology mapping.

REFERENCES

- Antinucci, Francesco & Guglielmo Cinque (1977) Sull'ordine delle parole in Italiano: l'emarginazione. *Studi di grammatica Italiana* 6: 121-146.
 Ariel, Mira (1990). *Accessing noun phrase antecedents*. London: Routledge.
 Calabrese, Andrea (1993) Some remarks on focus and logical structures in Italian. *Harvard University Working Papers* 91-127.
 Chomsky, Noam. (1986). *Barriers*. Cambridge, Mass.: MIT Press.
 Cinque, Guglielmo (1990). *Types of A-bar dependencies*. Cambridge, Mass.: MIT Press.
 __ (1993). A null theory of phrase and compound stress. *Linguistic Inquiry* 24: 239-267.
 D'Imperio, M. (1997). Narrow focus and focal accent in the neapolitan variety of Italian.

¹⁴ Even if our syntactic model allowed remnant movement, it would not be possible to discourse-link a predicate unless the syntax-phonology mapping constraint is violated. This is because the mapping constraint refers to the notion 'clause', which in turn is defined by the surface position of the predicate, as explained in more detail in Fn 3.

- In *Proceedings of ESCA Workshop on Intonation: Theory, models and applications*. Athens, Greece, 18-20 September, 1997. 87-90.
- Frascarelli, Mara (1997) The phonology of focus and topic in Italian. *The Linguistic Review* 14: 221-248.
- Grimshaw, Jane (1997). Projections, Heads, and Optimality. *Linguistic Inquiry* 28: 373-422.
- Inkelas, Sharon (1989) Prosodic constituency in the lexicon. Doctoral dissertation. Stanford: Stanford University.
- Lieberman, Mark (1975). The intonational system of English. Unpublished Ph.D. dissertation, MIT, Cambridge.
- McCarthy, John & Alan Prince (1993). Generalised alignment. In *Yearbook of Morphology* 1993: 79-154.
- Neeleman, Ad and Tanya Reinhart (1998). Scrambling and the PF-interface. In *The projection of arguments: lexical and compositional factors*, Miriam Butt & Wilhelm Geuder (eds.), 309-353. Chicago: CSLI Publications.
- Neeleman, Ad and Fred Weerman (1999). *Flexible syntax. A theory of case and arguments*. Kluwer.
- Nespor, Marina and Irene Vogel (1986). *Prosodic phonology*. Dordrecht: Foris.
- Nespor, Marina (1999). Stress domains. In: *Word-prosodic systems in the languages of Europe*, H. Van der Hulst (ed.) Chapter 2, Mouton.
- Pinto, Manuela (1997). *Licensing and interpretation of inverted subjects in Italian*. Doctoral dissertation. Utrecht: LOT Utrecht University.
- Prince, Alan and Paul Smolensky (1993). *Optimality Theory – Constraint interaction in generative grammar*. Ms. Rutgers University; University of Colorado.
- Reinhart, Tanya (1995). Interface Strategies. *OTS Working Papers*.
- Rizzi, Luigi (1997). The fine structure of the left periphery. In *Elements of Grammar: handbook in generative syntax*, Liliane Haegeman (ed.), 281-337. Dordrecht: Kluwer.
- Rossi, Fabio (1998). *Non lo sai che ora è?* Alcune considerazioni sull'intonazione e sul valore pragmatico degli enunciati con dislocazione a destra. *Studi di grammatica Italiana* 17: 145-193.
- Samek-Lodovici, Vieri (1996) Structural contrastive focus in Italian, with and without emphatic stress. Ms. Rutgers University.
- Selkirk, Elizabeth (1986). On derived domains in sentence phonology. *Phonology Yearbook* 3, 371-405.
- Szendrői, Kriszta (1999). A stress-driven approach to the syntax of focus. Ms. University College London. Appeared in *UCL WP in Linguistics* 11, 545-573. Revised and submitted to *The Linguistic Review*.
- Szendrői, Kriszta (2001). *The syntax of focus from the perspective of PF*. Draft PhD dissertation. February 2001.