The interpretation of vocative phrases involves, besides lexical semantics, pragmatic information, such as the degree of familiarity between the speaker and the addressee, the type of interaction between them, the speaker’s designs on the addressee, and so on. This pragmatic input in the interpretation of vocatives arises systematically, irrespective of whether the vocative is related to an utterance, or whether it stands in isolation. For example, *Mr. Smith!* brings to the interpretation not only the lexical/referential information inherent to the word *Mister* and to the name *Smith*, but also pragmatic information, signaling that this is a “call” to an *addressee* of a higher status in relation to the speaker.

The capacity of vocatives to generate compositional meaning goes hand in hand with syntactic and phonological peculiarities that make the vocative “typed” for a specific interpretation, on par with exclamatives or interrogatives. What is the mechanism that triggers this “typing”? From the perspective of generative grammar, the mechanism may apply at one of two levels: (i) only at the interface, in the Phonological Form (PF), after the completion (and independently) of the syntactic computation; or (ii) in the syntactic derivation, so the PF only spells out instructions issued during the syntactic computation. The current standard assumption in the Minimalist Program (Chomsky 1995 and further work) is that pragmatics related phenomena (which, in my understanding, also include vocatives) should be confined to point (i). In this paper, I will argue for point (ii), by bringing empirical evidence that vocatives are visible to syntactic computations. In my view, once the syntax of vocatives has been clarified, we can approach the syntax-PF interface from a better standpoint.

More precisely, in this paper I shall argue that the interpretation of a noun as a vocative arises from the way it is syntactically processed; and that the processing concerns pragmatic features encoded in syntax as stable feature sets. Thus, the first task of this paper is to identify the sets of pragmatic features that are syntactically relevant. The second step is to determine the syntactic strategies for computing these features.
within the vocative phrase, which must reflect the variations one may notice in the organization of vocative phrases.

1. The functional features

This section aims to demonstrate that vocatives arise from syntactic operations, and that they involve not only the vocative noun itself but also a functional field around this noun. Evidence comes from cross-linguistic data, as follows: (i) particles dedicated to vocative marking bring information on the type of functional field around the vocative nouns; (ii) the features of these particles, in addition to the morphology of vocative nouns, indicate two sets of functional features that trigger the syntactic operations: one set concerns the *addressee* (identification etc.) and one set concerns the *inter-personal relation* between speaker and addressee (familiarity, respect etc.). A formal representation of the vocative phrase is then proposed and generalized cross-linguistically, on the basis of the empirical observations.

1.1. Specialized particles

Various unrelated languages display particles that accompany or replace the vocative nouns, and this is their only function. Such vocative particles behave as in (1): they may stand by themselves (1a), or they may modify vocative nouns, on an optional (1b) or an obligatory basis (1c).

(1) a. **măi, vino-ncoa!**
   Romanian
   MRK  come here
   ‘Come here!’ – said to an addressee contextually identified

b. **(măi) Ioane,**
   vino-ncoa!  Romanian
   MRK  Ion.VOC  come here
   ‘Ion, come here!’ – the addressee is named

c. **a Maria,**... // *Maria,*...  Umbundu
   MRK  Maria.VOC// Maria.*VOC – Maria is addressee because of marker a
Hill (2007) presents a Table of such particles in three languages. The Table below expands that sample of data. The purpose is to show systematic patterns in the properties and the distribution of these particles.

Table 1: Vocative particles

<table>
<thead>
<tr>
<th>Language</th>
<th>Particle*</th>
<th>Optional presence</th>
<th>Formality of address</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arabic</td>
<td>ya+</td>
<td>+</td>
<td>-</td>
<td><a href="http://corpus.quran.com/documentation/vocative.jsp">http://corpus.quran.com/documentation/vocative.jsp</a></td>
</tr>
<tr>
<td></td>
<td>+umma</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Bulgarian</td>
<td>(a)be/bre</td>
<td>+</td>
<td>-</td>
<td>O. Mladenova – p.c.</td>
</tr>
<tr>
<td></td>
<td>+le</td>
<td>+</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ma</td>
<td>+</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Celtic</td>
<td>A</td>
<td>+</td>
<td>-</td>
<td>Mac Eoin (1993: 112)</td>
</tr>
<tr>
<td>Greek</td>
<td>Vre</td>
<td>+</td>
<td>-</td>
<td>Stavrou (this volume)</td>
</tr>
<tr>
<td></td>
<td>(mo)re</td>
<td>+</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Korean</td>
<td>+(y)a</td>
<td>-</td>
<td>-</td>
<td>Sohn (2001: 134)</td>
</tr>
<tr>
<td></td>
<td>+nim</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Portuguese</td>
<td>Pá</td>
<td>+</td>
<td>-</td>
<td>Carvalho (2010)</td>
</tr>
<tr>
<td></td>
<td>Ó</td>
<td>+</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Romanian</td>
<td>măi (mă'/fă/bă)</td>
<td>+</td>
<td>-</td>
<td>Hill (2007)</td>
</tr>
<tr>
<td></td>
<td>Bre</td>
<td>+</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tu</td>
<td>+</td>
<td>-</td>
<td>Zafiu (2003)</td>
</tr>
<tr>
<td>Telugu</td>
<td>+gA-rU</td>
<td>-</td>
<td>+</td>
<td>Arden (1873/1905)</td>
</tr>
<tr>
<td></td>
<td>E-mOy+/E-mma+</td>
<td>+</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Toda</td>
<td>+(y)as</td>
<td>-</td>
<td>+/-</td>
<td>Emeneau (1984)</td>
</tr>
<tr>
<td>Umbundu</td>
<td>a+</td>
<td>-</td>
<td>+/-</td>
<td>F. Collins p.c.</td>
</tr>
<tr>
<td></td>
<td>epa</td>
<td>+</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

* ‘+’ in front or after the particle indicates its prefix or suffix status, respectively.
The particles in Table 1 fall in two groups: (i) those that are obligatory and (ii) those that are optional. The obligatory particles indicate that the noun (common or proper) they affix to must be interpreted as a vocative (its referent is the addressee). Without them, the noun is interpreted differently (e.g., as a topic), not as a vocative. Since their main function is to mark the addressee role of the noun, these markers may be compatible with any formality value (e.g., Umbundu a+). Alternatively, some languages have separate obligatory addressee markers, one for formal and one for informal address (e.g., Korean).

Optional particles pattern together insofar as they are all associated with informality and need not be attached or co-occur with a noun. Their optionality is illustrated in (1a, b).

The interpretation of the particles in Table 1 indicates one basic property that applies to them all: they make an addressee out of a noun; hence, they Role mark it in the conversational setup. This property is intrinsically related to the interpretation (i.e., +/-formal), which may be further nuanced by types of (in)formality. Since the exact type of (in)formality can vary to a great extent, it is unlikely that every possible degree is encoded on the Role marker. What we rather detect is a general underspecified feature that allows for various values defining the relation between speaker and addressee. Let us call it the inter-personal [i-p] feature. The exact valuation of this feature arises from its semantic-syntactic environment. Therefore, irrespective of whether a Role marking particle co-occurs with a noun or not, it contributes two pragmatic ingredients to the compositional meaning of the utterance: the addressee and the [i-p].

1.2. Addressing the addressee

The nature of the inter-personal feature is self-explanatory. However, the concept of addressee needs further clarification. The addressee is a pragmatic role in the discourse set-up. As shown in Speas & Tenny (2003), pragmatic roles are converted to syntax in the same way thematic roles are converted from semantics to syntax. That is, thematic roles (e.g., ‘agent’, ‘theme’ etc.) are encoded as features of verbs, thus underlying the derivation of clauses (i.e., by determining the projection of corresponding argumental slots, such as ‘subject’ and ‘direct object’). Along the same lines, pragmatic roles (i.e., ‘speaker’, ‘addressee’) are encoded as features of speech acts, deriving clause-
like structures as well. Hence, our *addressee* feature, as a pragmatic role feature, should belong to a speech act head (i.e., predicative), not to the head of an argument (which is the status of nouns, vocatives included). So, what we perceive as the *addressee* feature must follow from the position of the entire vocative phrase in relation to speech acts (i.e., an external condition), rather than from the mapping of that feature within the vocative phrase (i.e., an internal condition). This is actually the analysis proposed in Hill (2007), Haegeman (2010), Haegeman & Hill (2010), Stavrou (this volume) for integrating vocative phrases in the clause hierarchy.

However, the fact that the vocative phrase is computed as an argument saturating the *addressee* pragmatic role feature of a speech act indicates that there is an addressee related feature computed within the vocative phrase; that is, some feature of the vocative ensures compatibility with the speech act [addressee]. I will identify that feature as [specificity], which is an intrinsic component of the *addressee* semantics.

Evidence for the obligatory presence of [specificity] on vocatives comes from the interpretation: Vocative nouns always have a specific reading even when they display indefinite forms, as in (2) (Hill 2007; Espinal this volume).

(2) a. *oameni buni,...* Romanian
    folks good
    ‘Good folks,….’

b. *eh, desgraciats,...* Catalan
    PRT swines

Languages like Romanian and Catalan have a one-to-one correspondence between definite articles and specific readings in common nouns. Thus, definiteness falls necessarily under semantic specificity\(^2\). Generic, non-specific noun semantics, on the

---

1 PRT stands for “particle” in general, which is distinct from MRK “marker”, the later being exclusively used in vocatives.
2 Generally, morphological definiteness yields a specific reading. There are, of course, turns where this is not the case (e.g., Engl. non-specified ‘this’ in *There was this man there, and he said...* ). Such uses, however, do not invalidate the relevant contrast between morphology and interpretation that is so pervasive in vocatives.
other hand, is encoded through indefinite articles or lack of articles. In this system, vocative nouns come as a puzzle, since they lack definite articles (as in (2)), but yield a specific interpretation at all times, irrespective of the context.

Related to this mismatch between semantics and morphology is the well-known observation that the use of definite articles is deviant in vocative phrases. For example, languages that have default processing of names with definite articles eliminate the article in vocative constructions; e.g., Albanian in (3) and Greek (see Stavrou, this volume). On the other hand, languages that process names without article by default, may use them when the name comes in vocative; e.g., Romanian in (4).

(3) a. Default: *Azim vs. Azimi (has come). (+article) Albanian
Azim.NOM Azim.the.NOM
b. Vocative: Azim,...! vs. *Azimi,...! (-article) Albanian
Azim.VOC Azimi.the.VOC

(4) a. Default: Ionel vs. *Ionelul a venit. (-article) Rom.
Ionel Ionel.the has come
b. Vocative: Ionelu’ lu’ mama,....// Ionelule,... (+article) Rom.
Ionel.the of mother.the Ionel.the.VOC

Such examples show that the article is as much of a Role marker (i.e., marking the noun as addressee) as the particles are. From a syntactic perspective, the article is generated as D, which is, thus, the locus for [specificity] (associated with definiteness). Hence, vocatives must incorporate D, and/or the features associated with this head. Furthermore, a vocative that incorporates D in this sense may also co-occur with the Role marking particles of Table 1. These particles are also associated with [specificity], which is intrinsic to the addressee role. Consequently, vocative nouns have [specificity] encoded twice: once as D (or equivalent) and once as addressee. This complex of features is independent of the morphological Case marking.

Let us expand on this double specificity marking on vocatives: When we consider the Role markers in Table 1, each of them brings [specificity] to the interpretation of the vocative noun, or to the vocative phrase, even if the noun is non-lexical, since they
unambiguously identify a referent as the addressee. In the absence of Role markers, any other indication of the vocative status of a noun (e.g., intonation alone) indicates that double [specificity] was involved in the computation. Technically, in such type of computation a competition arises for [specificity] checking between the definite article (or equivalents; e.g., demonstratives) and the element (e.g., Role markers) responsible for the vocative reading. Predictably, languages resolve this competition in different ways, and that must be reflected in a different internal structure in vocative phrases. However, given the processing constraints in syntax, in general, it is also predictable that the range of cross-linguistic variations is configurationally restricted, and that there must be one basic representation of vocative phrases that underlies these variations.

1.3. Formal syntax

Syntactic operations are driven by functional features (Chomsky 1995 and further work). Therefore, in order to formalize the syntactic derivation of the vocative phrase, one must first establish the functional features that may drive it.

So far, we have talked about [specificity] and [i-p] features as part of the lexical definition of the addressee Role makers. If these features count only as semantic properties of the particle, then we would expect the respective features not to be recoverable when there is no particle in the vocative phrase. Obviously, this is not what happens. As mentioned for (1b), the particle may be absent but the vocative noun is still interpreted for the values of the same features. Thus, cases as (1b) indicate the presence of a null counterpart to the particles in Table 1. For further illustration, consider the Romanian vocatives in (5), where no Role marking particle is present, and even the Vocative Case marking can be absent (e.g., Ion has the same form in vocative as in Nominative or any other Cases). The forms in (5) occur in free alternation with the forms in (4), which were shown to also display definite articles.

(5)  \textit{Ioane,… // Ion,… // Ionele,…}
\textit{Ion.VOC // Ion // Ion.dim.VOC}
The name *Ion* is used with or without the vocative Case ending *-e*. Use of the ending signals an informal address, whereas dropping the ending means a more respectful address. The addition of a diminutive to the noun brings the address to a more endearing level. The point is that the speaker must make a morphological decision (i.e., whether to use the Vocative Case mark or not) according to the value of the [i-p] feature, although there is no particle indicating what the [i-p] value might be. The same goes for the [specificity]: either the particle or the noun or both satisfy the requirement for promoting a noun as a candidate for the *addressee* role; the absence of the particle does not block this feature, it only changes the [i-p] value (e.g., *măi Ion,…* is more informal than *Ion,…*).

Within the framework adopted in this paper, these facts indicate that the features for [specificity] and [i-p] are encoded in the sets of functional features that the syntax computes in the functional fields of substantive categories. In Minimalist terms (Chomsky 1995 and further work), these are *uninterpretable* features that have to be checked and eliminated before sending the derivation to the interface components. This is done either by merging items with interpretable features (i.e., the Role markers in Table 1) at the slot of feature computation or by having these features probe constituents that will move to the slot of feature computation (e.g., a nominal item or phrase). In other words, the particles in Table 1 do not cause “extra-structure” when they are inserted in the utterance, they only fill out structural positions available in that particular derivation as a general rule. I formalize this finding in (6), following Hill (2007).

(6) 
```
RoleP
   /
  Spec   Role'
     /
    Role  XP (= DP/NP)
       [specificity]; [i-p]
```

The configuration in (6) means that there is a functional head associated with the uninterpretable features that triggers the vocative reading. Role markers, as in Table 1, merge either in the head (affixes) or in the Spec position (free morphemes) and check one
or both of these features, depending on their semantics. If Role markers are not available, movement of the noun to Role may also accomplish the feature checking. A combination of Role marker merging and noun movement is also predictable.

There is evidence for the local relation indicated in (6) between Role markers (when they are available) and the vocative noun: a free morpheme Role marker is adjacent to the vocative noun, and may only precede (vs. follow) the noun, as in (7). The ungrammatical word order becomes acceptable if there are significant intonation breaks between the two items, the prosodic contour being completely different - which I consider to represent repetitions of the vocative phrases versus word order variation within the same vocative phrase. Graphically, such repetitions would be signaled by commas between the relevant items (e.g., *tataie, bre,...*).

\[
\text{(7) a. } \text{bre tataie,... versus } \text{*tataie bre,... Romanian} \\
\text{MRK grand'pa.VOC } \text{grand'pa.VOC MRK} \\
\text{b. (zău) bre (*zău) tataie, zău,...} \\
\text{PRT MRK PRT grand'pa PRT}
\]

Furthermore, the obligatory markers listed in Table 1 attach to the vocative noun as prefixes or suffixes, which also indicates that the noun moves to the Role head.

The presence of lexical Role markers allows us to see their relation with the vocative noun and to trace the movement of the noun. However, they may be absent from the derivation, and yet the noun is processed in the same way, because there is a constant need to check [specificity] and [i-p] on the Role head. Thus, the analysis in (6) entails a generalization that holds cross-linguistically: vocative phrases are always RolePs, irrespective of whether the language has Role markers as in Table 1 or not (e.g., English).

2. Independent evidence for the syntactic status

So far, evidence for a syntactic status of vocative phrases came from constraints on the distribution and the interpretation of Role markers, and from the use of definite articles. One may still argue that such effects arise from pragmatics only, while the word
order constraints follow from linearization at PF. After all, even the presence of Vocative Case ending on nouns is subject to debate as to its morpho-syntactic reality (see Donati, this volume). In this section, I bring further evidence for the syntactic status of vocative phrases by presenting constraints arising from morpho-syntactic agreement. Such agreement is necessarily the result of syntactic, pre-PF, operations.

2.1 Role markers and agreement

Some of the Role markers in Table 1 display different forms according to the number and the gender of the vocative noun. For example, Umbundu *epa* allows for masculine singular, but not for feminine or for plural (8). Furthermore, it applies only to informal addresses. In the same vein, Romanian *mâi* is spelled differently in sub-standard Romanian, according to whether the addressee is masculine or feminine (9).

(8) epa a Pedro,... // *epa a Maria,... Umbundu
   MRK MRK Pedro MRK MRK Maria

(9) bă Marine,.... // fă Mario,... Romanian
   MRK Marin.VOC MRK Maria.VOC

This type of agreement mimics the agreement we see between adjectives and nouns. Hence, it must also involve the same type of processing, triggered by the features of the functional head (here, Role); that is, a local Spec-head configuration.

2.2 Verb agreement

The Role markers listed in Table 1 for Umbundu are inherently specified for singular only. When the vocative involves a plural noun, it is licensed by the suffix –i on the verb, instead of a Role marker on the noun. Schadeberg (1990: 29) provides the description for the string of verbal inflection in Umbundu, as in (10), illustrated with an assertive verb in (11).

3 For more information on word order and embedding in the Umbundu sentence, we refer the reader to Hill (2007).
In (10), 1PI is the pre-initial negative marker; 2I the initial subject concord; 3Fo the formative tense marker for Tense/Aspect/Mood; 4Fo2 the formative ‘itive’ marker; 5preR the pre-radical object concord; 6VB the lexical verb base/root; 7Fi the final tense marker for TAM; 8Fi2 the final plural vocative marker; 9Cl is an enclitic locative complement. Importantly, the plural vocative morpheme is necessarily computed in the same way as the other morphemes of the verb string since it is embedded in the string.

2.3 Allocutive agreement

Haegeman & Hill (2010) point out the relevance of the allocutive agreement in Souletin (a Basque dialect) for the understanding of the syntactic processing of particles involved with the addressee pragmatic role feature. In particular, following the discussion in Oyharçabal (1993), Miyagawa (2010) shows that there are four ways to say ‘Peter worked’, depending on the gender/number of the addressee(s) and the interpersonal relation between the speaker and the addressee. The relevant patterns are given in (12), from Miyagawa (2010).

(12) a. To a male friend
   Pettek lan egin dik.
   Peter.ERG work.ABS do.PRF AUX.3SG.ABS-2SG.C.MSC.ALLOC-3SG.ERG

b. To a female friend
   Pettek lan egin din.
   Peter.ERG work.ABS do.PRF AUX-3.SG.ABS-2SG.C.FM.ALLOC-3SG.ERG

c. To someone higher in status (formal)
   Pettek lan egin dizü.

‘we did not go there to thank them for you’ (address to plural entity)
Miyagawa demonstrates that allocutive agreement is authentic agreement, because it competes with the regular 2nd person agreement morpheme. If the sentence contains a 2nd person subject, object, etc., allocutive agreement does not arise:

(13) a. (Nik hi) ikusi haut.
    (1SG.ERG 2SG.C.ABS) see.PRF AUX-2SG.C.ABS-1SG.ERG
    ‘I saw you.’

b. (Zuek ni) ikusi naizue.
    (2PL.ERG 1SG.ABS) see.PRF AUX-1SG.ABS-2PL.ERG
    ‘You saw me.’

Although these examples do not directly involve vocative phrases, they do involve the processing of the *addressee* feature, which is central to the vocative syntax. Proof that the *addressee* has morpho-syntactic impact supports the thesis of bringing the processing of vocatives into the syntax as well.

To conclude, there is strong evidence that vocative nouns and Role marking particles for the addressee constrain each other and/or the verb with respect to number and/or gender agreement. Agreement counts as an uninterpretable functional feature that drives checking operations in narrow syntax; in particular, it has to be eliminated before the derivation is sent to the interface. This process involves a probe (the uninterpretable feature) and a goal (the lexical item semantically specified for agreement). Since in our case the goal is a Role marker or a vocative noun, these items must be merged during the syntactic computation, or else the derivation would crash.

3. Licensing of vocative nouns within RoleP
This section explores the consequences of the RoleP configuration in (6) for the internal organization of the vocative phrase. First, I determine the conditions for feature checking, then I outline the patterns of variation allowed by the syntactic constraints.

The theoretical framework adopted here is that any noun projects a phrase (NP) reflecting its combinatorial possibilities, and that this phrase is extended with a functional field that inflects it (Abney 1987). The main functional element in this field is the D(eterminer) (e.g., article); so the structure is NP > DP. The head D carries uninterpretable features (basically [agreement] and [specificity]) and thus, acts as an inflectional field for the noun, and ensures Case checking for this noun. In technical terms, D probes the items of NP for need of its feature checking; the probing results in the movement of the noun or the adjective to positions within DP (Giusti 1997 for Romanian). In (6), DP is the complement of Role and contains the vocative noun.

3.1. Noun movement to Role

The driving force for the syntactic operations in RoleP is the need to check its [specificity] and [i-p] features. As already mentioned, this may involve the merging of a Role marker or the movement of the noun to Role or both. This section brings evidence that nouns do indeed move to RoleP.

Evidence for noun movement to Role comes from examples as in (14). Bulgarian has the Role marker –le, which is an enclitic identifying the addressee, as in (14a). The Vocative Case is morphological. (14b) shows that the vocative noun follows the possessive adjective on par with the argumental use of this noun. However, when –le is introduced, the noun must precede the possessive adjective, which indicates movement (14c). Furthermore, this movement must be of the head-to-head type (i.e., N/D-to-Role) because the possessives occupy Specifier positions and would block any other constituent from moving across them to another Specifier position.

(14) a. goro!//   *le!//  gorole!
               forest.VOC//  ROLE//  forest.VOC.YOU
   b. moja  goro
               my    forest.VOC
The mechanics of (14) match the observation in Longobardi (1994) for Italian, where vocatives behave in the same way in relation to possessives:

(15) Gianni mio,… VS *Mio Gianni,… (Italian)
     Gianni my.VOC my Gianni.VOC

Italian does not have lexical Role markers, but the similarity in noun movement indicates that the head Role attracts the vocative noun at all times, irrespective of whether it is lexically realized or not. The mechanics of movement is shown in (16), where the arrows indicate the path of movement for the noun; the scored capital letters indicate the (memory) copies left behind by the moving noun.

(16) [RoleP Role/D/N [DP DN [NP N ]]]

The data in (14) and (15) confirm that nouns move to Role (with or without Role marker affixation). This movement crosses the DP level in response to probing from Role. Hence, we expect that the internal structure of vocative phrases must differ from the structure of regular NP/DP in all aspects related to Role probing for feature checking.

3.2. Checking within RoleP

The configuration for vocative phrases in (6) established that Role needs checking for two features: [specificity] and [i-p]. Movement within RoleP must be justified only by the need to check these two features.

The cross-linguistic examples in (3) and (4), showing deviant uses of definite articles in vocatives, signaled a competition between D and Role for [specificity] checking, since [specificity] is a feature on both heads. Hence, the checking operations within RoleP must allow for variations in [specificity] checking, in addition to the checking of the [i-p] feature. The operations are constrained insofar as they can only
involve the head Role and the Spec, RoleP. Within these structural constraints, variation may arise from the presence or the absence of Role markers, either in Role or in Spec, RoleP. This is compounded by the movement of the noun, which may take the form of N/D-to-Role, as in (16), or it may occur as NP/DP to Spec, RoleP. Furthermore, adjectives may be nominalized and, so, they can alternate with genuine NPs for movement to Role or to Spec, RoleP. Therefore, the configuration in (6) allows for a considerable range of variation in the composition of vocative phrases, which may or may not all be available in one single language. A discussion of variation patterns follows, drawing, mostly, on Romanian data.

**Pattern A:** Lexical checking for informal [i-p]

Masculine singular vocatives in Umbundu provide the most complete set of lexical elements in RoleP, since it has two sets of Role markers: *epa* for informal [i-p]; *a* for [specificity]; the latter is an affix that attracts the noun irrespective of the [i-p] feature value in Role⁴. Thus, the representation of the vocative phrase is as in (17).

(17)

```
RoleP
  epa
  Role'
    a Pedro
    DP/NP
      Pedro
```

Romanian has Role markers for informal [i-p] (e.g., the free morpheme *māi*) but not for [specificity]. Hence, noun movement is expected to check [specificity] in Role. This movement, however, interferes with the checking within DP, since Role probes D before its [specificity] feature is deleted. Thus, restrictions on combinatorial possibilities arise which do not apply to DPs elsewhere. This is shown in (18).

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⁴ Umbundu does not have morphological Case marking. Thus, the marker *a* has the function to endow the noun with a vocative reading (i.e., [specificity] related to *addressee* identification), not to encode the Vocative Case.
(18) a. Măi fetiţo (*isteaţă/mea), vino mai repede!
MRK little.girl.VOC smart mine come.2SG.IMP more quick
‘Little girl, come quick!’
b. Măi isteaţo (*fetiţă),...
MRK smart.VOC little.girl,…
‘Smarty,…’
c. (Isteaţa) (mea) fetiţă/ fetiţa (mea) (isteaţă) a venit.
smart.the my little.girl/ girl.the my smart has come
‘The/my smart little-girl has come.’

In (18c), a regular DP allows for adjectives to precede or follow the noun. When the noun is vocative, only one phrase may occur, either the noun (18a) or the nominalized adjective (18b), but not both.

The restrictions in (18) follow from the need of movement to check [specificity] in Role. Thus, Role probes D (the nearest item) for [specificity]. As a free-ride\(^5\), D also checks its agreement features against Role instead of probing AP/NP for that purpose. The only feature for which D still probes down the tree is [D]-nominal (so the selected phrase is computed as a NP vs. e.g. an IP), for which only one item is necessary: i.e., either the noun, as in (18a), or the adjective, as in (18b), whichever is nearer. It has been established that D agreement checking on AP and/or NP is fundamental to license the agreement between A and N (e.g., Giusti 2005 establishes two agreement phrases for that purpose in Romanian). Since such an agreement fails, only one of these items can be a licit syntactic object (i.e., the item probed by D). The probed item (i.e., either N or AP) ends up as a portmanteau for the vocative morphology. This analysis explains why adjective nominalization is so common in vocatives. The checking variation arising in this context is that the operation is fulfilled either by N/D-to-Role, in which case the noun surfaces, as in (18a), or through AP to Spec,DP, Role being checked through distance.

\(^5\) Free-ride checking is a “side-effect” checking when two probe and goal meet for the purpose of checking some other feature. Here, the probing feature is [specificity]. Agreement features and Case for the noun or the nominalized adjective are the side effect of this main operation.
‘Agree’ with D, in which case we obtain the nominalized adjective in (18b). This variation is captured in (19a, b), respectively.

(19) a.

\[
\begin{array}{c}
\text{Role} \\
\text{fetiţo} \\
\text{D} \\
\text{NP}
\end{array}
\]

b.

\[
\begin{array}{c}
\text{Role} \\
\text{fetiţo} \\
\text{Spec} \\
\text{isteată} \\
\text{N'} \\
\text{N}
\end{array}
\]

(19) is a replica of the pattern in (17), and has the same interpretation as output: an informal address to a friend or a child.

**Pattern B:** Lexical checking for formal [i-p]

Formal address does not have dedicated particles in Table 1, but it may involve pragmaticized items. Thus, Romanian has măi for informal address, but resorts to certain adjectives for formality: stimat ‘beloved’, drag ‘dear’, etc. These adjectives have been semantically weakened and morpho-syntactically impoverished (e.g., drag lost some inflection). The syntactic behavior of these adjectives indicates that they have been re-analyzed as pragmatic/vocative markers. Consider the examples in (20): The re-analyzed form is in complementary distribution with măi (20a). In (20c), these forms do not allow for modifiers, whereas the same adjectives used elsewhere, do. In (20b), regular adjectives preceding the noun carry the definite article; the re-analyzed forms do not do that, the article remaining on the vocative noun. Hence, the adjective in (20a) is merged
directly in Spec, RoleP (competing with măi), and is not subjected to the operations of the DP field. This is captured in the representation in (21).

(20) a. (*Măi stimate cititorule, publicațiile noastre
     MRK beloved reader.the.VOC publications.the our
     îți stau la dispoziție.
     you.DAT remain at disposal
     ‘Dear reader, our last publications are at your disposal’.

b. Stimatul cititor vs. *Stimat cititorul
     beloved.the reader vs. beloved reader.the

c. foarte stimat/ mai stimat vs. *foarte/mai stimate cititor!
     very beloved more beloved very/more beloved reader

(21) RoleP
    Spec Stimate/*măi Role'
    Role cititorule DP
        D NP
          cititor (u)le
              | N cititor

The representations in (19) and (21) are identical, the variation consisting only in the lexical items that check the [i-p] feature: Role marker in (19) versus pragmaticized adjective in (21). Then the value of the [i-p] feature is informal or formal, respectively.

Pattern C: Deletion of the DP field (+/- formal [i-p])

The main argument in this analysis is that [specificity] is a feature of both Role and D, and that affects the way feature checking is implemented around the vocative noun. One consequence is that Role may subsume the functions of D in relation to the
noun. That takes place when the DP field is deleted, and Role probes the noun (N) directly. The deletion of the DP field is signaled by obligatory deletion of the definite article, as shown in (22), with the configuration in (23).

(22) a. Măi oameni(*i) (*mei) buni,... // *Măi oamenilor buni,....
MRK folks *the my good MRK folks.*the.VOC good
‘Good folks,…’

b. Carte frumoasă, cinste cui te-a scris! (T. Arghezi)
book beautiful hail to.whom you has written
‘Beautiful book, homage be paid to whom wrote you!’

(23) RoleP

   Spec (Măi)
      /         |
     Role'     Role
     /          |
   NP     oameni ‘folks’
     /        
    Spec     buni ‘good’
     /      |
    N’     N
          oameni

In (23), the [i-p] feature is checked either by a marker in Spec, RoleP (e.g. măi) or just by N-to-Role (in which case, the reading is more formal). The noun moves to Role without the intermediate step in D. This allows for the checking of the complete set of features between N and Role, which involves not only [specificity], but also gender/number, and this allows N to license an adjective. Thus, the main difference between Pattern C in (23), and Patterns A, B (19/21), is that the former does not have to choose between noun and adjective, but it can license both. Predictably, (23) does not allow for nominalization of adjectives (e.g., Măi buni,…’MRK good.MASC.PL’) since the nominalization can be implemented only by the definite article.
Pattern D: Phrasal roll-up

Constructions as in (24) allow for either formal or informal interpretation, the reading depends on the context. The optional reading is enhanced by the fact that the Role marker \(măi\) is disallowed, even if the interpretation is [+familiar] (24). Furthermore, the vocative noun displays a definite article – which signals the presence of D - and it may co-occur with an adjective, contrary to the cases in (19). These properties indicate that this DP is computed as in the default (non-vocative) configurations, so Role probes the entire DP, and attracts it to Spec,RoleP, as shown in (25). This variation in the checking configuration follows from the possibility of having phrasal movement to Spec position, which, in (25), can check both features of Role (i.e., [i-p] and [specificity]) in this local structural relation.

\[
\begin{align*}
(24)\quad (*măi)\quad (toţi)\quad băieţii\quad înalţi,\quad (toţi)\quad treceţi\quad (toţi)\quad la\ dreapta! \\
PRT\quad all\quad boys.the\quad tall\quad all\quad go.2PL.IMP\quad all\quad at\quad right
\end{align*}
\]

‘The tall guys - move all to the right!’

\[
\begin{align*}
(25)\quad \text{RoleP} \\
\quad \text{Spec} & \quad \text{Role’} \\
\quad \text{QP} & \quad \text{[Toţi băieţii înalţi]} \\
\quad \text{Role} & \quad \text{QP} \\
\quad \text{Q} & \quad \text{toţi} \\
\quad \text{DP} & \quad \text{Spec} \\
\quad \text{D’} & \quad \text{D} \\
\quad \text{băieţi-i} & \quad \text{NP} \\
\quad \text{AP} & \quad \text{înalti} \\
\quad \text{N’} & \quad \text{N} \\
\quad \text{băieţi}
\end{align*}
\]
In (25), măi is impossible because the DP is merged in its place. The floating quantifier ‘all’ marks the possible positions for the DP it modifies. It appears that the DP originates lower in the clause - i.e., in the subject position of the imperative verb - and moves up to Spec,RoleP. In Romanian, this option applies only to vocative phrases that also qualify as subjects to imperative verbs. We can, thus, say that these are obligatorily intra-deictic addresses, in terms of Stavrou (this volume), or “fake” vocatives in Espinal (this volume).

To sum up this section, the configuration in (6) underlies a whole range of variations we may see in vocative phrases, and which occur inter- or cross-linguistically. In this light, the theory does not have to chose between analyses that argue for bare nouns (NP) in vocatives (Longobardi 1994) or those that argue for DPs in vocatives (Coene et al 2005), as both patterns may arise, their derivation being restricted only by the conditions on syntactic checking of the [i-p] and the [specificity] features of Role.

4. Conclusions and cross-linguistic comments

This paper provided arguments for a syntactic status of vocative phrases. The main thesis is that the pragmatic features of vocatives are converted to a two-member set of functional features (i.e., [i-p] and [specificity]) associated with a functional field above DP/NP. Once this generalization is in place, then the ensuing syntactic configuration (i.e., RoleP > (DP) > NP) can account for any variation occurring in the vocative phrases, these variations reflecting the range of possible operations that achieve the checking of [i-p] and [specificity] in the domain of RoleP.

Romanian was shown to present the whole range of checking variations. However, not all languages do so, and even those that do show preferential patterns. English, for example, displays three patterns, as in (26), but (26a, b) are the most productive. In (26c), you can be replaced with the as modifier to the nominalized adjective, which would also make the switch between and address and an exclamation.

(26)  
a. John,…..!; Driver,…! = Role > NP (23)
b. Old boy,…! = Phrase roll-up (25)
c. you idiot! = nominalization (19b)
On the basis of the examples in this paper, it is reasonable to predict that the “preference” for one pattern or another is constrained by certain parameters in the language; for example, lack of Role markers in the language and/or the type of definite article (clitic or non-clitic). Especially the latter may decide on the RoleP > DP versus RoleP > NP variation, since a free morpheme in D blocks the movement of N to Role. My analysis predicts a typology along these lines but further investigation in this respect is needed.

References:

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