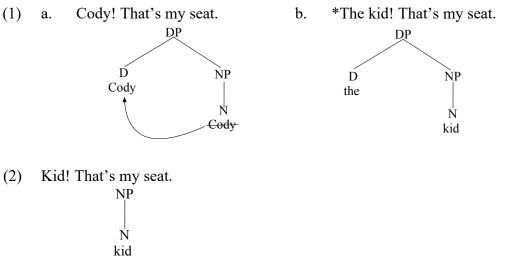
# **INTERACTING WITH VOCATIVES!**

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### 1. Introduction

In this paper we explore the grammar of vocatives. Our point of departure is the fact that names, but not definite descriptions, can serve as vocatives in many languages, including English, as illustrated in (1). This is surprising if we assume, following Longobardi (1994), that names are like definite descriptions in that both are DPs. The difference between them is that names are analysed as Ns that move to D, as in (1)a, while definite descriptions contain a definite determiner in D blocking movement of N to D, as in (1)b. Furthermore, bare common nouns can serve as vocatives, as in (2).<sup>1</sup> This leads to our first question: what is the structure of a vocative nominal?



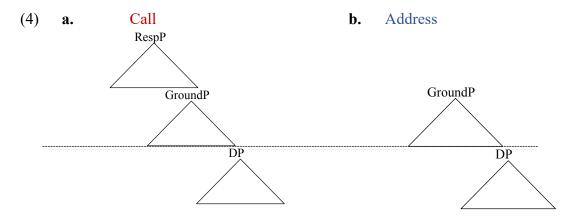
Our second question concerns Schegloff's (1968) observation that there are two distinct functions of vocatives: *calls* and *addresses*, as exemplified in (3).

(3)	a.	Grandma Myshkin! Tell me about Lublin.	Call
	b.	I imagine, Lady Jane, that you will find the sherbet pleasant.	Address
		(adapted from Zwicky	1974: 788)

<sup>&</sup>lt;sup>1</sup> An alternative analysis would be to assume that vocative bare common nouns have the same structure as proper names as in (1)a. For the purpose of this discussion the choice between the two does not matter. In section 3 below we argue against both (1)a and (2) as structures for vocatives.

Slocum (2016) observes that calls constitute their own utterance, whereas addresses are integrated into the sentence.<sup>2</sup> In fact, calls must precede any other utterance in a given turn while addresses may occur in a variety of positions. This raises our second question: is there a structural difference between calls and addresses?

Here we argue that all vocatives are 'big nominals'; that is to say that they contain nominal interactional structure above the DP. Like clausal interactional structure (Wiltschko & Heim 2016, Wiltschko, to appear), nominal interactional structure consists of RespP and GroundP. We argue that calls and addresses are structurally distinct in that calls are RespPs while addresses are GroundPs, as schematized in 0.

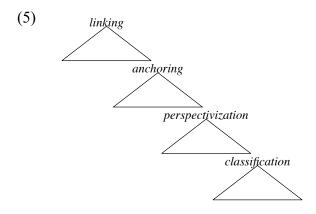


The remainder of this paper is structured as follows: In section 2, we introduce our background assumptions regarding interactional structure. In section 3, we introduce our proposal concerning the syntax of vocatives. This provides the answer to the questions posed above. In section 4 we turn to the reference of vocatives in order to explore the issue of why definite descriptions cannot be used as vocatives. In section 5, we introduce a set of nouns which display yet another pattern of distribution, namely *terms of endearment*. They are readily used as vocatives but not as propositional arguments. In section 6 we compare our analysis to existing alternatives. In section 7 we conclude.

#### 2. Background

Our point of departure is the Universal Spine Hypothesis (Wiltschko 2014), i.e. the hypothesis that universally, syntactic structure consists of a set of category-neutral interpretive functions rather than grammatical categories. As shown in (5), the interpretive functions we assume are classification (specifies the kind of predicate); perspectivization (introduces a point of view); anchoring (relates the referent to the deictic center), and linking (relates the deictic center to the discourse).

<sup>&</sup>lt;sup>2</sup> We have modified the punctuation in Zwicky's example following Slocum's (2016) convention of separating calls from the following sentence and punctuating them with an exclamation mark.

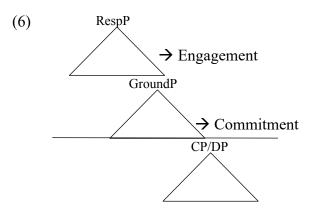


Because they are category neutral, these interpretive functions characterize both the clausal and nominal spine, albeit with different effects. For example, the linking category in the clausal spine links an embedded clause to higher structure and can be instantiated as Comp. The linking category in the nominal spine links arguments to predicates and can be instantiated as K(ase).

Crucial for our purposes, the research reported in Wiltschko & Heim (2016) and Wiltschko (2017, to appear) extends the universal spine to include interpretive functions that regulate verbal interaction between interlocutors. Wiltschko (to appear) refers to this extension as the Interactional Spine Hypothesis (ISH). The interpretive functions that define the interactional spine are *grounding* and *responding*. The function of grounding is the negotiation of shared knowledge between interlocutors: it is where the speaker can signal commitment to the propositional content. The grounding structure is articulated such that there are two GroundPs: one is speaker-oriented and the other is addressee-oriented. The function of responding is the management of turn-taking; it is where the speaker can signal their level of engagement with the addressee. Thus, the interactional spine regulates linguistic interaction; it is independent of the truth-conditional content that is conveyed in the propositional structure (Wiltschko, to appear).

Ritter & Wiltschko (2018, 2019) apply the ISH to the nominal spine, focussing specifically on evidence for an articulated nominal GroundP based on the properties of personal and impersonal pronouns. The assumption that the nominal interactional spine parallels the clausal interactional spine leads to the prediction that the nominal domain will also include nominal RespP. In this paper we show that this prediction is borne out based on evidence from vocatives. We show that in vocatives commitment and engagement are regulated by the interactional spine. The interactional spine for both sentences and nominals is schematized in (6).<sup>3</sup>

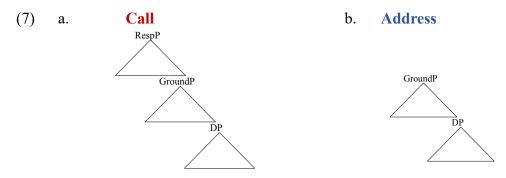
<sup>&</sup>lt;sup>3</sup> For reasons of space, we abstract away from this articulated structure where it is not essential, but see section 5 for a structure which includes this level of detail.



In the next section, we provide evidence for nominal RespP and GroundP based on an analysis of the similarities and differences between vocative calls and addresses.

#### 3. The syntax of calls and addresses

Recall from section 1 that there are two types of vocatives: calls and addresses. In this section, we motivate our proposal that calls and addresses have a different syntactic structure. Specifically, we propose that calls are RespPs and addresses are GroundPs, as schematized in 0, repeated here as (7).



This hypothesis correctly predicts that calls and addresses differ in distribution, content, and interpretive function.

We begin with their distributional differences. As Slocum (2016) observes, calls only occur in initial position and they constitute an independent utterance, whereas addresses may occur initially, medially or finally and they are integrated into the sentence, as shown in (8) and (9), respectively.<sup>4</sup>

(i) As I was saying-**Oh Sharon!** Come here and let us see that marvellous dress!-you can't believe a *thing* you read these days.

<sup>&</sup>lt;sup>4</sup> Zwicky (1974) claims that calls, too, can occur in sentence-medial position based on examples like (i):

We submit that the call in (i) is not in fact in sentence-medial position but rather constitutes a separate utterance where the speaker interrupts themselves.

(8) a. **Grandma Myshkin**! Tell me about Lublin.

- b. \*Tell me. Grandma Myshkin! What do you know about Lublin?
- c. \*Tell me about Lublin. Grandma Myshkin!
- (9) a. I imagine, Lady Jane, that you will find the sherbet pleasant.
  - b. Lady Jane, I imagine that you will find the sherbet pleasant.
  - c. I imagine that you will find the sherbet pleasant, Lady Jane.

Calls and addresses also have different content. By this we mean that there are units of language, which can co-occur with calls, but not with addresses. In particular, only calls can co-occur with attention getting particles such as *hey* and *oh* (Zwicky 1974). The other unit of language that is restricted to calls is a distinctive prosodic contour, signaled here by the exclamation mark (Göskel & Pöchtrager 2013). This is illustrated in (10)-(11):

- (10) a. Grandma Myshkin! Tell me about Lublin.
  - b. Hey Grandma Myshkin! Tell me about Lublin.
- (11) a. I imagine, Lady Jane, that you will find the sherbet pleasant.
  - b. \*I imagine, hey Lady Jane, that you will find the sherbet pleasant.

Finally, calls and addresses have different communicative functions. According to Zwicky (1974: 787) "Calls are designed to catch the addressee's attention, addresses maintain or emphasize the contact between speaker and addressee." Given the ISH, we interpret this as a difference in interpretive function. Calls signal that the speaker wishes to initiate engagement with the addressee. Evidence that the sole function of calls is to attract attention, comes from the observation that even when they are used in isolation they can fulfill the intended speech act, as shown in (12).

(12) Context: Grandma Myshkin has her back towards her grandchild.(Hey) Grandma Myshkin!

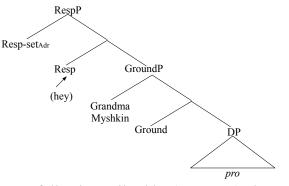
Turning now to the interpretive function of addresses, they express commitment to the propositional content. The use of a vocative here signals that the speaker believes that the propositional content is particularly relevant for the current addressee. It is for this reason that addresses give the impression of (re-)establishing the relationship between the speaker and the addressee. This is evident from the interaction between addresses and impersonal pronouns used as arguments. In English, second person pronouns can generally be used personally or impersonally, as in (13)a. However, when a vocative is added, only the personal interpretation is available, as in (13)b.

(13)	a.	You shouldn't text while driving	personal or impersonal
	b.	You shouldn't text while driving, Konrad.	personal only

We have now established that calls differ from addresses in terms of distribution, content, and interpretive function. Next we show how our proposal accounts for these distinctive properties.

We start with the syntax of calls. As introduced above, we propose that calls are RespPs. More specifically, we hypothesize that the vocative name is associated with Spec, GroundP while the DP is occupied by a silent pronominal element (*pro*). In addition, the head of RespP is occupied by the prosodic contour of the call and optionally by an attention-getting particle (*hey*), as schematized in (14).

(14) The syntax of calls



We assume, following Wiltschko (to appear), that RespP is not embeddable. It follows that calls are separate utterances; that is to say, they cannot occur inside a sentence as this would require structural embedding.

In terms of content, RespP makes available structure above the vocative itself to host additional content, such as the attention getting particles and intonational tunes.<sup>5</sup> This constitutes an extension of Wiltschko & Heim (2016), Heim & Wiltschko (to appear), where it is argued that intonational contours are associated with clausal Resp. The communicative function of calls is to attract the interlocutor's attention. This is consistent with the function of Resp, which regulates engagement with the addressee.

Evidence that *hey* is in fact a head, comes from the observation that it can function as a call (ii), a greeting (iii), or a confirmational (iv).

(ii) Hey (Betsy)! Do you need a hand?	Call
(iii) Upon running into a friend: Hey (Betsy).	Greeting
(iv) That was really weird, <b>hey</b> ?	Confirmational

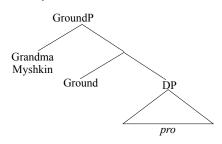
We attribute this type of multi-functionality to the fact that *hey* can associate with different head positions. This follows from the assumption that the interpretation of a head is determined by its lexical content and its spinal function (see Wiltschko 2014).

<sup>&</sup>lt;sup>5</sup> Evidence that *hey* is not an adjunct comes from the observation that it can appear as a call without a host. This is not a property expected of adjuncts, which have to be adjoined to a constituent.

<sup>(</sup>i) **Hey!** (Do you need a hand?)

Turning now to addresses, we propose that these are GroundP (as in (15). As with calls, the vocative name is associated with Spec, GroundP while the DP is occupied by *pro*.

(15) The syntax of addresses



Since GroundP is embeddable, addresses can (and do) occur as part of a larger sentence. The absence of attention-getting particles and/or the distinctive intonation contours follows straightforwardly from the absence of RespP. The function of addresses is to express the speaker's belief that that the addressee should be committed to the propositional content of the utterance. This is consistent with the broader characterization of GroundP as the locus of commitment.

In this section we have highlighted the syntactic differences between calls and addresses. Although calls have more structure than addresses, we asserted that in both cases the vocative name itself is in Spec, GroundP. The reason for this comes from the observation that the choice of name always encodes social information about the addressee, regardless of whether the name is used as a call or address (Slocum 2016). When we address an individual, the name we choose is drawn from the set of names we know them by, based on our relationship and the discourse context. For example, the vocative may be realized as a first name or as a title and last name as in (16)-(18).

- (16) Professors talking in a department meeting; all are on a first name basis:
  - a. Dave, are you teaching LING 100 next semester?
  - b. \*Professor Smith, are you teaching LING 100 next semester?
- (17) Undergraduate student is asking their professor; undergraduates are not on a first name basis with professors:
  - a. \*Dave, are you teaching LING 100 next semester?
  - b. Professor Smith, are you teaching LING 100 next semester?
- (18) Professors talking in a meeting with an undergraduate student; undergraduates are not on a first name basis with professors:
  - a. \*Dave, are you teaching LING 100 next semester?
  - b. Professor Smith, are you teaching LING 100 next semester?

Following Wiltschko, to appear, we assume that in the clausal domain, an abstract argument in Ground<sub>Spkr</sub>P introduces the propositions the speaker knows and an abstract

argument in Ground<sub>Adr</sub>P introduces the propositions the speaker thinks the addressee knows. Here we propose that there are also abstract arguments in the nominal domain. Specifically, the abstract argument in nominal Ground<sub>Spkr</sub>P introduces the individuals that the speaker knows and the abstract argument in Ground<sub>Adr</sub>P introduces the individuals that the speaker thinks the addressee knows. It is in this way that the grounding layer constrains the options that are available for addressing an individual. Since the choice of name is determined by the grounding layer, we argue that the expression of this choice must be internal to GroundP, both in calls and addresses.

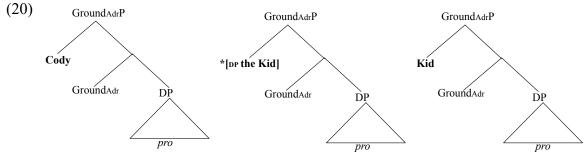
In the next section we explore the content of the arguments of nominal GroundPs.

### 4. The reference of vocatives

In this section, we address the first question we identified in the introduction, namely the question as to why  $[_{DP} the N]$  cannot function as a vocative. The relevant data are repeated as (19) below for convenience.

- (19) a. **Cody**! That's my seat.
  - b. **\*The kid!** That's my seat,
  - c. **Kid**! That's my seat.

In light of the proposal we developed in section 3, the question these data raise is as follows: why can names and bare nouns be realized in Spec,  $Ground_{Adr}P$  but [DP *the* N] cannot. The relevant structures are depicted in (20).



The generalization that interactional arguments cannot be preceded by definite determiners also holds for names. For example, in Upper Austrian German, names used as propositional arguments are obligatorily introduced by determiners whereas as interactional arguments they cannot be so introduced.

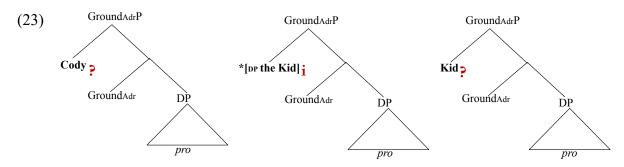
- (21) a. \*Wos is mit Martina passiert? What is with Martina happened intended: 'What happened to Martina?'
  - b. Wos is mit da Martina passiert? What is with DET Martina happened 'What happened to Martina?'

- (22) a. Martina, wos is passiert? Martina, what is happened 'Martina, what happened?'
  - b. \*Da Martina, wos ist passiert? DET Martina, what is happened intended: 'Martina, what happened?'

We interpret the ungrammaticality of (22)b as evidence that neither names nor common nouns can be realize as DPs when they appear in SpecGroundP.<sup>6</sup>

The idea we wish to formalize here is that DPs denote discourse referents (DRs), i.e., individuals we talk *about*. Vocatives, on the other hand, only have an interactional function: they address the individuals we talk *to*. The evidence in (19), (21) and (22) suggests that DRs cannot function as vocatives. To account for this pattern, we assume that DPs bear a DR-index, and we hypothesize that DR indices cannot be assigned to interactional arguments, such as vocatives.

If vocatives lack a DR-index, then this raises the question as to how their reference is established. Do they have an index and if so, what kind of index is it?



In the remainder of this section, we argue that different strategies are needed to establish the reference of proper names and common nouns because proper names are rigid designators but common nouns are not. We begin by considering proper names.

#### 4.1 The reference of names

Each proper name is associated with a specific individual. Following proposals in Reinhart (1981) and Erteshik-Shir (1997, 2007), we assume that each individual we know is represented with the mental equivalent of a file-card. We further propose that each file-card must contain at least the following information: i) the name(s) of the individual (including their titles); ii) the relationship the individual has to the file-card holder; iii) a

<sup>&</sup>lt;sup>6</sup> Hill (2007, 2014) observes that definite articles are possible in vocative nominals in some languages, including Romanian. Our analysis leads us to predict that the definite article is not a D in these languages. Interestingly, the definite article is realized at the right edge of the noun in Romanian. This raises the question as to the category of the definiteness marker. We leave the exploration of this issue for future research.

unique identifier, which we refer to as the E(xtensional)-index; and iv) a mental image of the individual. A sample file-card is given in Figure 1.

E-index 27 Relation to me: son First Name: Konrad Middle Name: Strang Last Name: Burton Nick Name: K Titles: Senpai ...

Figure 1. Martina's file card for Konrad

Previous proposals that made use of the file-card metaphor did not make explicit where these file-cards are stored. Here we propose that file-cards are listed in a repository which is part of the grammar (hence is not the encyclopedia). We refer to this repository of file-cards as the *compendium of individuals*. What we are proposing is that the grammar contains a list of words we know (i.e., the lexicon) but also a list of individuals we know. This model is schematized in **Figure 2**.

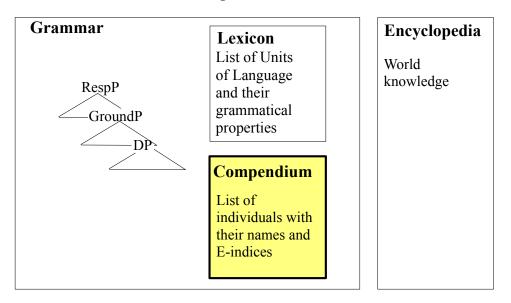


Figure 2. The place of the compendium in the model of grammar

In this model, (bare) names are rigid designators by virtue of being part of the compendium. The compendium is a list of individuals, with their names, titles and their permanent E-indices. In this way, names differ from DPs which are composed of a common

noun and a definite determiner.<sup>7</sup> Both the noun and the determiner are taken from the lexicon without an index and the [ $_{DP}$  *the* N] constituent is assigned a temporary DR-index as part of the derivation (*pace* Chomsky 1995). In the next subsection we turn to the question as to how reference is assigned to bare nouns used as vocatives.

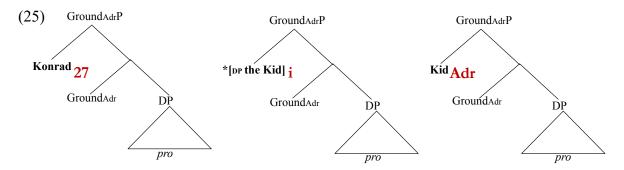
#### 4.2 The reference of bare nouns as interactional arguments

Recall that bare nouns can be used as vocatives, as exemplified in (24):

(24) Kid! That's my seat.

Since bare nouns used as vocatives are not DPs, they do not have a DR-index; and since bare nouns are not in the compendium, they do not have an E-index. This raises the question as to whether bare nouns have an index and how they uniquely identify the addressee. We assume that all arguments in the interactional layer bear interactional roles (speaker and addressee). Here we hypothesize that the argument in Spec, Ground<sub>Adr</sub> is obligatorily assigned the addressee role and that in the absence of an E-index, an interactional role serves to identify an interactional argument.

We have now addressed the question regarding the reference of vocatives: DPs are ruled out as vocatives because they bear a DR-index, which signals that they are propositional rather than interactional arguments. Names of specific individuals are rigid designators because they come with an E-index which uniquely identifies their referent, and this is compatible with being an interactional argument. Finally, bare nouns have neither a DR-index nor an E-index; they receive an interpretation by virtue of bearing an addressee role. The different options are illustrated in (25).



Assuming that any nominal in Spec,  $Ground_{Adr}$  is assigned the addressee role, it follows that names, like bare nouns have an addressee role. This raises two questions i) Why are E-indices compatible with an addressee role, while DR-indices are not? and ii) If the addressee role is sufficient to license a vocative why then are we assuming that names are identified by their E-index rather than by their addressee role?

<sup>&</sup>lt;sup>7</sup> In this respect, titles pattern with names: because they are listed in the compendium their representation in the grammar includes the individual's E-index. For reasons of space, we cannot discuss the properties of titles in more detail.

To answer the first question, we suggest that interactional arguments must be distinguished from propositional arguments and that DR-indices are the mechanism by which we distinguish between the two types of arguments. Consequently, an addressee with a DR-index is simply ill-formed.<sup>8</sup> In contrast, an E-index is compatible with the addressee role because it is permanently associated with an individual. In fact, the representation of an individual includes that individual's E-index, regardless of whether the representation serves as an interactional argument or a propositional argument; that is to say the E-index is part of the representation regardless of whether that individual is addressed.

We now turn to the second question: why do we assume that names are identified by their E-index if the addressee role could do the job? We hypothesize that the addressee role identifies a referent but interactional arguments also need to be licensed. This draws on Rizzi's (1986) insight regarding the distribution of pro: the referent of pro needs to be identified, but in addition, pro also needs to be syntactically licensed. We suggest that a similar constraint holds for interactional arguments. While the addressee role always serves to identify the referent of the vocative, it doesn't license it. We suggest that the E-index of a name can serve as a licensor for the vocative in GroundP. This is reminiscent of inherent case-licensing. We further suggest that RespP can also serve as a licensor for the vocative, this is reminiscent of structural case-licensing. This hypothesis predicts that for a bare noun, which doesn't bear an E-index, RespP will always be required, whereas names can be realized as bare GroundPs. Thus, we expect that names can be used as calls (RespP) and addresses (GroundP) while bare nouns can only be used as calls because they require a licensor. This prediction is borne out. To see this, consider the examples in (26) and (27). The bare noun (here modified with a PP) cannot function as an address (26) but it can function as a call. No such restriction holds for names (27).

- (26) a. \*That's my seat, kid in the blue shirt.
  - b. Hey, kid in the blue shirt! That's my seat.
- (27) a. That's my seat, Cody.
  - b. Hey, Cody! That's my seat.

But now we are faced with the question as to why the bare noun is well-formed as an address in (28).

(28) That's my seat, kid.

We suggest that in this case, *kid* serves as a term of endearment, and as such it has special properties, which we explore in the next section. The modification of the noun by a PP in

<sup>&</sup>lt;sup>8</sup> This raises the question as to how 2<sup>nd</sup> person pronouns are interpreted as propositional arguments. We suggest that when they function as propositional arguments they also have a DR-index. This may be surprising as 2<sup>nd</sup> person pronouns refer to the addressee. We submit that there is a crucial difference between talking about the addressee as an event participant and a DR and addressing them directly as an interactant. Our key idea here is that this difference is syntactically represented.

(26) rules out the possibility that the noun is being used as a term of endearment. Similarly, a bare noun which is not a possible term of endearment cannot be used as an address. This is illustrated in (29).

- (29) a. **Cabby**! Take me to Carnegie Hall.
  - b. \*I don't think, **cabby**, that the Lincoln Tunnel is the best way to go to Brooklyn. (Zwicky 1974: 790)

The observation that bare nouns are restricted to function as addresses but names are not was first made by Schegloff (1968) and was discussed in more detail in Zwicky (1974). Our analysis, according to which bare nouns require licensing by Resp while names do not, explains this generalization.

## 5. Terms of endearment

We now turn to terms of endearment, which are readily used as vocative calls and addresses, as illustrated in (30)-(32).

- (30) a. Are you ready to order, Hon?b. Hey Hon! Are you ready to order?
- (31) a. It's your turn, Kiddo.b. Kiddo! It's your turn.
- (32) a. I love you, Honey-bunny.b. Oh Honey-bunny! I love you.

However, these terms of endearment cannot be used as propositional arguments, regardless of whether or not they are preceded by a definite determiner, as illustrated in (33).

- (33) a. \*Is (the) Hon ready to order?
  - b. \*It's (the) Kiddo's turn.
  - c. \*I love (the) Honey-bunny.

These facts raise the following questions: i) How are terms of endearment licensed as interactional arguments? ii) Why are they not licensed as propositional arguments? Note that the nouns in (30)-(32) have distinctive forms, as has been well established (Dunkling 1990, Kennedy & Zamuner 2006, Hill 2014). There are (at least) three types of distinctive vocative forms in English: vocative clipping (34)a, vocative suffixation (34)b, and vocative reduplication (34)c.<sup>9</sup>

<sup>&</sup>lt;sup>9</sup> Dunkling (1990, entry for *o*) provides a definition for the suffix -*o* that is consistent with it being a vocativizer: "[T]he modern use of suffix -*o*, [...] forms many vocative diminutives, or terms which are more nearly pure vocatives than the [source] words or names which are modified in this way. 'Boyo', for example, is used vocatively, whereas 'boy' is more frequently used in third person reference [...] 'Kiddo' is a vocative form of 'kid' [...]' For discussion of other vocativizing strategies, see Kennedy and Zamuner (2006).

(34) a.	vocative clipping:	Honey	$\rightarrow$	Hon
b.	vocative suffixation:	Kid	$\rightarrow$	Kiddo
c.	vocative reduplication:	Honey	$\rightarrow$	Honey-Bunny

We refer to these distinctive forms as *vocativizations* and suggest that they function like vocative case in Latin, as in (35).

(35) Fer, serv-e, aqua-m bring slave-VOC water-ACC 'Slave, bring water.'

The fact that these terms of endearment can be used as addresses indicates that RespP is not required for vocativization, which, like vocative case, is a licensing mechanism for interactional arguments. We suggest that terms of endearment of this type are derived via vocativization in Spec, GroundP. For example, *Hon* is stored in the lexicon as the noun *honey* but when used as a vocative in Ground, it can be vocativized via vocative clipping, deriving *Hon*.

In addition to vocativization, there is another type of term of endearment: nouns like *sweetheart,* whose semantic content express affection can be used as such. Interestingly, they can be used as propositional arguments, but only when preceded by a possessive determiner, as shown in (36) and (37).

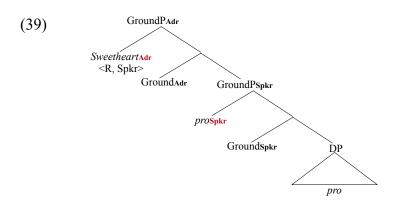
- (36) Are you at home, Sweetheart?
- (37) a. \*Is the sweetheart at home?
  - b. Is my/your/her sweetheart at home?

So again, two questions arise: i) How are these terms of endearment licensed as interactional arguments? And ii) Why are they only licensed as propositional arguments if they are possessed? We start with the second question and propose that terms of endearment of this type are relational nouns, whose argument structure includes an R-argument (in the sense of Williams 1981) and an obligatory possessor (Barker 1995, Burton 1997), as in (38).

(38) *sweetheart:* <R,Poss>

This accounts for the contrast in (37). The possessive pronoun in (37)b saturates *sweetheart*'s external argument, whereas the definite determiner in (37)a cannot do so.

As for the first question, we suggest that it is the relational character of these terms of endearment which enables their licensing as interactional arguments. In this case, the possessor argument is saturated by the speaker in Spec, GroundP<sub>Spkr</sub>, as illustrated in (39).



In short, in this section we have shown that terms of endearment have a different distribution from either names or bare nouns as summarized in Table 1.

	Interactional Argument		Propositional argument
	Calls	Addresses	
Proper Names	✓	✓	$\checkmark$ (with D)
Common Nouns	✓	×	$\checkmark$ (with D)
Vocativized terms of endearment	✓	✓	×
Relational terms of endearment	✓	$\checkmark$	$\checkmark$ (with possessor)

Table 1. The distribution of proper names, common nouns, and terms of endearment

We have argued that the different types of nominals have different licensing conditions when used as vocatives: names are licensed via their E-index, common nouns are licensing by Resp, and hence can only be used as calls, vocativized terms of endearment are either licensed by a vocativizer or by their relation to the speaker.

### 6. Previous analyses of vocatives

Our proposal shares with previous scholarship the insight that vocatives have additional structure above the DP (Hill 2013; Espinal 2013, Stavrou 2014). This body of work assumes a VocP which is restricted to vocative nominals and which hosts vocativizing particles.<sup>10</sup> While they do not explicitly state it in these terms, the assumption of a VocP can be seen as an instantiation of an interactional layer of structure. However, a dedicated VocP does not play a role in other interactional phenomena such as formality distinctions in pronouns (Ritter & Wiltschko 2019) or other kinds of pragmatic information encoded in pronominal forms of many Asian languages (Ritter & Wiltschko 2018, McDonald 2020). In contrast, a generalized interactional structure for nominal phrases is in line with core generative tenets of reducing construction-specific analyses to more general properties of grammar.

<sup>&</sup>lt;sup>10</sup> Hill (2007) similarly proposes an additional layer above DP to accommodate vocatives. In this work, she refers to it as RoleP, but this is essentially the same as VocP in her later work.

We depart from all previous analyses, in proposing that nouns and names can be associated with different positions within the nominal structure. Previous analyses address the question as to why vocatives cannot co-occur with determiners in languages like German. For example, Stavrou 2014 attributes this to the fact that VocP takes an NP as its complement and hence determiners are ruled out.<sup>11</sup> Our proposal that vocative nominals are associated with Spec, Ground permits an account of nouns that are only used as vocatives, such as terms of endearment. Previous analyses did not explore this pattern.

Finally, none of the previous literature addresses the distinction between calls and addresses (Schegloff 1968, Zwicky 1974). While the distinction is generally acknowledged, none of the previous treatments offers a syntactic analysis of it. the fact that distributional differences of. Our analysis in terms of the interactional structure exploits independently motivated properties of GroundP and RespP to account for the observed differences between calls and addresses.

Finally, while previous work acknowledges the existence of calls and addresses (Schegloff 1968, Zwicky 1974), it does not offer a syntactic analysis that accounts for the distinctions between them. We interpret the distributional differences between these two types of vocatives as evidence that a syntactic treatment is warranted. Our analysis in terms of differences in their interactional structures exploits independently motivated properties of GroundP and RespP to account for the full range of contrasting properties of calls and addresses – their distribution, content and interpretation.

## 7. Conclusion

The goal of this paper was to explore the syntax of vocatives within a framework which assumes that nominals, like clauses, have an interactional layer which regulates the interaction between interlocutors. Our investigation of vocatives focussed on two questions: i) What is the structural difference between vocatives and propositional arguments? ii) Is there a structural difference between two types of vocatives (calls and addresses) and if so what is that difference?

We have proposed that vocatives are composed of propositional structure dominated by interactional structure: specifically we argued that all vocative nominals contain Ground<sub>Adr</sub>P. To distinguish between calls and addresses we further proposed that in calls GroundP is dominated by RespP, which is the locus of attention-getting particles and dedicated intonational tunes. This derives the interpretive difference between calls and addresses via the independently motivated functions of GroundP and RespP, respectively. That is, GroundP encodes commitment and RespP encodes engagement. Our answer to the first question, thus, rests on the assumption that there is a significant difference between the meaning encoded in propositional structure (i.e., truth-conditional meaning) and the meaning encoded in interactional structure (i.e., use-conditional meaning). The difference in meaning effects a difference in the licensing of reference: propositional arguments are licensed by discourse referent (DR) indices. These indices are reserved for individuals we

<sup>&</sup>lt;sup>11</sup> There are cross-linguistic differences in this respect (see Footnote 6). For languages which allow for definite articles in vocative phrases, the complement of Voc is analysed as DP (Hill 2014, Stavrou 2014).

talk about, and hence are incompatible with interactional arguments, such as vocatives, precisely because vocatives address individuals we talk to. Interactional arguments are licensed in different ways: names, as rigid designators, are intrinsically associated with an E(xtensional) index while bare nouns used as vocatives are licensed by their addressee role.

In sum, nominal interactional structure encodes the things we *do* when we utter nominals. In Ritter & Wiltschko (2018, 2019), we have proposed that what we do with nominals is *naming*, *describing*, and *tracking*. Here we add *addressing* as a fourth function of nominal interaction: it is what we do with vocatives.

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