

Between pronouns and R-expressions: Pronoun-like lexical noun phrases

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Abstract

We discuss an empirical study that suggests a finer categorization of pronouns versus lexical noun phrases in terms of their feature valuation. We argue that not all lexical noun phrases have their ϕ -features valued from the lexicon. By investigating Polish politeness markers, we demonstrate that certain noun phrases can have their features (specifically, the person feature) valued in a manner parallel to feature valuation in free pronouns. The proposal thus refines our understanding of the categorial distinction between different types of nominals, and suggests that in addition to known morphological and syntactic variation in the domain of pronouns and lexical noun phrases, there is a more fine-tuned classification of feature valuation types.

Keywords: pronouns, binding, syntax-semantics interface, R-expressions, imposters

Résumé

Nous discutons d'une étude empirique qui suggère une catégorisation plus fine des pronoms par rapport aux syntagmes nominaux lexicaux en termes de la valuation de leurs traits. Nous soutenons que les traits ϕ des phrases nominales lexicales ne sont pas tous déjà valués dans le lexique. En étudiant les marqueurs de politesse polonais, nous démontrons que les traits de certaines phrases nominales (en particulier, le trait de personne) peuvent être valués

This research would not be possible without funding from Canada's SSHRC Insight Grant #435-2016-1034 (Grammatical vs semantic features: the semantics-morphology mapping, and its consequences for syntax; PI: Kučerová). We would like to thank the audiences at FASL 2019 at Stony Brook and the YYC Pronouns Workshop, and three anonymous CJL reviewers for their helpful comments.

d'une manière parallèle à la valuation des traits chez les pronoms libres. Cette proposition affine ainsi notre compréhension de la distinction catégoriale entre différents types de nominaux, et suggère qu'en plus des variations morphologiques et syntaxiques connues dans le domaine des pronoms et des syntagmes nominaux lexicaux, il existe une classification plus fine des manières de valuation des traits.

Mots clés: pronoms, liage, interface syntaxe-sémantique, expressions R, imposteurs

1. HOW TO BE A PRONOUN

In the generative syntax/semantics literature, a pronoun is usually understood to be a nominal that establishes the identity of its referent (loosely, an individual, a set of individuals, or a minimal situation) via a structural or contextual anaphoric relationship with a lexically specified phrase, or a referent in the relevant world of evaluation.¹ From a theoretical linguistics perspective – specifically under the Y-model – two properties of pronouns are relevant for this paper: the lack of an observable (pronounced or signed) root position associated with vocabulary insertion (using Distributed Morphology terminology), and an anaphoric semantic interpretation.

Abstracting away from possible syntactic and morphological variation in the domain of pronouns (Cardinaletti and Starke 1999, Déchaine and Wiltschko 2002, among others), the lack of an overtly realized root is either structural, that is, the corresponding syntactic structure lacks the root position (e.g., Kratzer 2009), or post-syntactic, that is, the root is syntactically present but elided at the interface (e.g., Postal 1969, Elbourne 2005). Under the former view, the so-called minimal pronoun is a D head, associated with a semantic index which can give rise to morphologically realized ϕ -features ($D_{[F,SG]} \rightarrow she$). The ellipsis approach to pronouns (Postal 1969, Elbourne 2005) assumes that the NP part of the structure is elided under an appropriate information-structure configuration (givenness), and that the overt realization of the remaining DP reflects the ϕ -features of the elided NP ($[_{DP} D_{[F,SG]} the [_{NP} \# \sqrt{DOCTOR}]] \rightarrow she$). That is, under the ellipsis approach, pronouns and lexically specified noun phrases, which we will refer to as R-expressions,² are syntactically alike. They differ only in whether or not their NP part is overtly realized. This paper focuses on those theories that make a structural distinction between pronouns and R-expressions.

In this family of approaches to pronouns, the core distinction between pronouns and R-expressions lies in how they establish their interpretive properties. The semantic interpretation of pronouns is established via a semantic index,³ while the

¹Abbreviations used: 1: first person; 2: second person; 3: third person; ACC: accusative; ADJ: adjective; CI: conceptual-intentional interface; D: determiner; DP: determiner phrase; F: feminine; GEN: genitive; INF: infinitive; M: masculine; N: neuter; NOM: nominative; NP: noun phrase; Num: number; PL: plural; REFL: reflexive; REL: relative; SG: singular; T: tense; VOC: vocative.

²We adopt the binding-theoretic label 'R-expression' as a shortcut for lexically specified noun phrases. Their binding status will not be at the centre of our investigation.

³For example, in the formal system developed in Heim and Kratzer (1998), the denotation of a pronoun remains undefined, unless the pronoun is associated with a semantic index and

denotation of an R-expression is grounded in the denotation of its lexical root.⁴ The association between a pronoun and its antecedent can have a syntax-semantics underpinning. For example, anaphors require a syntactic licensing within a phase (see, for example, Charnavel and Sportiche 2016). Alternatively, they can be based on contextual semantic assignment. This anaphoric relationship has a morpho-syntactic counterpart. In many languages, the morphological realization of a pronoun is based on a set of syntactically valued ϕ -features. According to some authors, this feature valuation is established through a semantic index associated with the pronoun – for instance, post-syntactically by feature transmission from a local phase head (Heim 2008, Kratzer 2009), while other authors argue for a narrow syntax relation like Agree. Under that approach, unvalued ϕ -features on D are valued by features associated with its elided nominal complement; or by Agree with the pronoun's antecedent (Wurmbrand 2017, Bjorkman and Zeijlstra 2019, Diercks et al. 2020).⁵

The empirical focus of this paper is a class of nominals whose roots are overtly realized. That is, they look morphologically like R-expressions, but their ϕ -features display dual behaviour in that they can trigger local syntactic agreement based on their form (3rd person), or their semantic interpretation (2nd person). In the latter regard, they are pronoun-like; that is, their denotation partially arises via association with a semantic index corresponding to an interlocutor. We demonstrate that the politeness nominal discussed here differs structurally from similar structures that display dual behaviour, namely, imposters (which have a covert pronoun embedded within the DP, as in Collins and Postal 2012), politeness pronouns (which undergo agreement with an addressee-oriented feature at the left periphery of a clause, as in Portner et al. 2019), vocatives, and appositives of the *we linguists* type. Instead, we localize its dual feature valuation within the DP itself, thus making these nominals structurally akin to free pronouns. Consequently, we can identify three types of structures that differ in the locus of valued ϕ -features. For (minimal) pronouns, the locus of valued ϕ -features on a pronoun is the D head (associated with a semantic index): [_{DP} D_{*i*, ϕ}]. For R-expressions, the locus is within NP: [_{DP} D NP _{ϕ}]. In contrast, the class of nominals we investigate in this paper has a dual feature structure. The locus of valued ϕ -features is within NP, as in R-expressions, but also on D in association with a semantic index, as in pronouns: [_{DP} D_{*i*, ϕ 1} NP _{ϕ 2}]. The existence of such nominals suggests a need for a more fine-tuned categorial characterization of pronouns

can be interpreted via the assignment function. The denotation properties can further be restricted by presuppositions associated with ϕ -features, as in Heim (2008).

⁴R-expressions also associate with a semantic index, but only for their referential interpretation and in order for them to become a binder. See, however, the discussion in Heim (1998) and Roelofsen (2011) who argue that for an R-expression to become a binder, an additional structure-building operation, such as movement, might be needed.

⁵For independent empirical evidence for semantic, syntactic, and post-syntactic feature valuation, see, for example, Bhatt and Walkow (2013), who provide evidence for syntactic and post-syntactic agreement within one language. For a discussion of different sources of feature valuation and their consequences for interpretation, see, for example, Wechsler and Zlatić (2003) and Kučerová (2018).

and R-expressions, one that allows for a scale of expressions situated between R-expressions and pronominals.

The proposed analysis crucially relies on the phase theory version of the standard Y-model, that is, the assumption that the morpho-syntax does not have direct access to semantics. More precisely, while the morpho-syntactic interface accesses the complement of a phase head, the syntax-semantics interface has access to the complete phase, including its edges. Consequently, morphological realization of features added at the syntax-semantics interface is possible only if the features are added to a phase edge (in our case, the phase head), and thus remain accessible for later morphological realization (see, for example, Kučerová 2018, 2019 for a formal explication of such an account). As we will see, the structures of interest to us contain an unvalued person feature on D that gets valued only at the syntax-semantics interface. Since these valued person features trigger overt morphological realization (agreement), it follows that they must be located on a phase head, effectively making DP a phase.⁶

Thus, in addition to addressing the question of the relation between pronouns and R-expressions, this paper contributes to the debate on whether DPs in article-less languages may constitute a phase.⁷ Since D has been identified as the locus of a syntactic person feature, that person feature can be valued by the syntax-semantics interface only if D is a phase head. Consequently, at least some, if not all, DPs in article-less languages must be phases.

2. THE PUZZLE OF POLISH NOMINAL POLITENESS MARKERS

Our empirical focus is on the Polish nominals *pan*.M.SG and *pani*.F.SG (henceforth, PAN). These nominals are politeness markers⁸ that translate to English approximately as ‘Mr/ Sir/ gentleman’ and ‘Ms/ Madam/ lady.’ PAN inflects for number, gender and case, and as we will see, it projects either an *nP* or a DP structure. Even though the inflectional properties of PAN are those of a noun, it exhibits the syntactic distribution of (i) a regular R-expression, (ii) a pronominal adjectival modifier (honorific), and (iii) a pronominal.

2.1 PAN as an R-expression

We start our empirical exploration by discussing uses of PAN that do not differ from other lexical noun phrases. This discussion will form a baseline for other uses of PAN.

⁶We thank an anonymous reviewer for helping us spell out the logic of the architecture argument in the context of our empirical study.

⁷See, for example, Migdalski (2001) and Szczegielniak (2017) for arguments that Polish DPs are phases; in contrast to, e.g., Bošković (2009) who argues that they are not DPs.

⁸The focus of this paper is the syntactic properties of these nominals. For a recent overview of politeness markers and their syntax-semantics properties cross-linguistically see Portner et al. (2019). We discuss their proposal in more detail in section 4.2 where we also show that PAN differs from politeness markers that are valued from the left periphery of the clause.

An example of PAN as an R-expression is given in (1). Here we see PAN in an argument position (direct object). The nominal is inflected for ϕ -features (feminine singular) and case (genitive). In this example, the nominal is modified by a demonstrative⁹ and can serve as an antecedent to a pronoun, suggesting that in this case PAN realizes a DP structure.

- (1) Nie znam tej pani, ale wiem, że ona, tu nie pracuje.
 not know this PAN.F.SG; but know that she; here not work.3SG
 ‘I do not know this lady but I know she does not work here.’

Further evidence that PAN in its R-expression use corresponds to a DP comes from the fact that it can be coordinated with a proper name, as in (2), and that it is modifiable by a relative clause, as in (3). Furthermore, this instantiation of PAN can serve as the answer to an individual-questioning *wh*-question, as in (4).

- (2) [Ten pan] i Jan kichnęli
 this PAN.M.SG and Jan sneezed
 ‘This gentleman and Jan sneezed.’
- (3) Pani, która poszła spać, jest młoda.
 PAN.F.SG who.REL.F.SG went sleep.INF is young
 ‘The lady who went to sleep is young.’
- (4) Q: Kto kichnął?
 who sneezed?
 ‘Who sneezed?’
- A: Ten pan.
 this PAN.M.SG
 ‘This gentleman.’

In this guise PAN behaves like any other regular noun in Polish. However, unlike other lexical nouns, PAN exhibits additional syntactic behaviour, as discussed below.

2.2 PAN as a nominal modifier

PAN can also exhibit adjective-like behaviour. In this guise, the number, gender, and case of PAN depend on the number, gender, and case of the root nominal. For example the feminine noun ‘female director,’ as in (5), requires the feminine form of PAN. Since the ϕ -features of PAN in the modifier use are dependent on the grammatical features of the head noun, they must come unvalued from the lexicon.¹⁰ Note, however, that even though PAN exhibits agreement, overt inflection is nominal, not adjectival.

⁹Polish lacks definite and indefinite articles. Since some authors, (e.g., Bošković 2009), question whether article-less languages have a DP in the English sense, it is important to provide additional evidence for the existence of a DP. Here we use examples with demonstratives as an approximation for a D element, but see the more general argument for Polish having DPs in Migdalski (2001) and Szczegielniak (2017).

¹⁰As an anonymous reviewer has pointed out, the features of PAN and the head noun can mismatch in some cases. Specifically, there is a class of profession-denoting nouns that display hybrid noun behaviour (the head noun is morphologically masculine but can trigger feminine agreement when denoting a female individual, as in *pani dyrektor* ‘PAN.F.SG

- (5) a. pani dyrektorka
 PAN.F.SG director.F.SG
 ‘Ms director’
- b. *pan dyrektorka
 PAN.M.SG director.F.SG

The modifier version of PAN has the syntactic distribution of a prenominal modifier.¹¹ However, unlike other prenominal modifiers, it must be adjacent to the NP complex it modifies, as in (6).¹² That is, PAN is unlike other prenominal modifiers that can alter their order with respect to each other, as well as with respect to the head noun based on information-structure properties, as in (7).

- (6) Ta (*pani) nasza (*pani) wspaniała pani
 this.F.SG PAN.F.SG our.F.SG PAN.F.SG wonderful.F.SG PAN.F.SG
 dyrektorka (*pani) kichnęła.
 headmaster.F.SG PAN.F.SG sneezed
 ‘This wonderful headmistress of ours sneezed.’
- (7) a. szanowny wspaniały król
 respected.M.SG wonderful.M.SG king.M.SG
- b. wspaniały szanowny król
 wonderful.M.SG respected.M.SG king.M.SG
 ‘a/the wonderful respected king’

The fact that PAN must be adjacent to the root nominal and that further structural elements, such as adjectival modifiers, possessives and determiners, linearly precede PAN suggests that PAN is adjoined low in the structure, most likely within NP.

PAN can, however, modify proper names as well, as in (8). Assuming that proper names are DPs, PAN can function as a DP-modifier as well. PAN as a DP modifier gets its features valued by agreement with the ϕ -features of the proper name, demonstrated in (9).

director.M.SG’). We refer the reader to Kučerová (2018) for a discussion of similar cases in Italian and Kučerová and Szczegielniak (2019) for a discussion of mixed nominal agreement patterns in Polish. Following these accounts, we assume that this type of morphologically masculine noun comes with an unvalued gender feature from the lexicon, which becomes subject to an interface valuation. Crucially, the feature valuation of the modifier PAN is still a result of agreement, instead of PAN having its own inherently valued gender feature.

¹¹Some Polish modifiers can be prenominal or postnominal, with the postnominal order giving rise to special meanings (Rutkowski, 2007; Wągiel, 2014). We thank an anonymous reviewer for a helpful discussion of prenominal modifiers in Polish.

¹²As an anonymous reviewer has pointed out, the adjacency requirement is seemingly lifted in examples, like (i). However, this is an apposition structure where PAN functions as an R-expression, not a modifier.

- (i) ta nasza pani, wspaniała dyrektorka
 this.F.SG our.F.SG PAN.F.SG wonderful.F.SG headmaster.F.SG
 ‘this lady of ours, the wonderful headmistress’

- (8) Pani Krystyna kichnęła.
 PAN.F.SG. Krystyna sneezed
 ‘Ms. Krystyna sneezed.’
- (9) * pan Krystyna
 PAN.M.SG Krystyna

2.3 PAN as a pronoun-like element

The previously discussed distribution of PAN has given us a hint of its somewhat unusual syntactic properties, but it is the pronominal guise of the nominal that fully demonstrates its structural fluidity. Nominal structures based on PAN can also be used to denote an interlocutor. First, observe that PAN, as other R-expressions, can be used as a vocative, as in (10). In Polish, vocatives are marked by a specialized inflectional morphology and are external to the event structure of a clause.¹³ However, as examples (11)–(12) demonstrate, PAN can also be used as an addressee-oriented element (akin to a 2nd person pronoun) when syntactically integrated as an argument of a clause. In this case, the nominal denotes the interlocutor and has the syntactic distribution, including case marking, of a DP argument.

- (10) Szanowny panie!
 respected PAN.VOC.M.SG
 ‘(Respected) Sir! . . .’
- (11) Wie pan co?
 know PAN.NOM.M.SG what
 ‘You know what?’
- (12) Czy mógłbym pana zaprosić na obiad?
 if could.1SG PAN.ACC.M.SG invite.INF on dinner
 ‘Could I invite you to dinner?’

However, the syntactic property that most clearly reveals the hybrid nature of PAN within the nominal system is that in its pronominal use, PAN systematically triggers variable agreement on predicates. As can be seen in (13), an interlocutor-interpreted PAN¹⁴ either triggers a nominal-like agreement, that is, 3rd person agreement on the predicate, as in (13a), or it triggers 2nd person agreement, as in (13b). As far as we know, this agreement variation does not correlate with any interpretive differences.¹⁵

- (13) a. (Szanowny panie_i), **ma** pan_i papierosa?
 respected PAN.VOC.M.SG have.3.M.SG pan.NOM.M.SG cigarette.ACC

¹³Vocatives do not receive a theta-role, do not satisfy c-selection requirements of a predicate, and as argued in Ritter and Wiltschko (2020), do not receive a structural case.

¹⁴Note that the agreement trigger here is the structural subject, that is, the nominative-marked PAN.

¹⁵However, the two agreement patterns differ in their sociolinguistic status. The 3rd person agreement pattern is formal, while the 2nd person agreement pattern is highly colloquial. Since our focus is on structural properties that give rise to this alternation, we put aside its sociolinguistic properties. We thank an anonymous reviewer for a helpful discussion of the sociolinguistic aspect of the agreement alternation.

- b. (Szanowny panie_i), **masz** pan_i papierosa?
 respected PAN.VOC.M.SG have.2.M.SG pan.NOM.M.SG cigarette.ACC
 ‘Hey, respected Mister, do you have a cigarette?’

As pointed out by an anonymous reviewer, kinship nouns also allow variable agreement, as seen in (14), suggesting that the pattern we see with PAN is an intrinsic property of the system, not a lexical exception.¹⁶

- (14) a. Ma ciotka papierosa?
 has.3.SG aunt.NOM cigarette?
 ‘Does (your/the/some. . .) aunt have a cigarette?’
 b. Masz ciotka papierosa?
 have.2.SG aunt.NOM cigarette?
 ‘Aunt, do you have a cigarette?’

To our knowledge, Polish does not allow variable person agreement in any other domain. Polish does allow semantic agreement,¹⁷ but the switch between grammatical and semantic value never appears within a local syntactic domain, such as in subject-predicate agreement. Instead, the switch to a semantic value only occurs across a sentence boundary and is mediated by a pronominal (a pronoun or a *pro*). The example in (15) shows semantic agreement in gender. In this example, a grammatically neuter noun that denotes a female triggers an obligatory neuter agreement on the predicate, but the agreement can switch to feminine in a following clause (here, a subject *pro* mediates the predicate agreement). The example in (16) demonstrates a switch in number. Numeral phrases like ‘five boys’ trigger neuter singular agreement, but the predicate of the following clause agrees in the plural, reflecting the semantic plurality of the numeral phrase. As with number, the switch to semantic agreement is not local.

- (15) Dziewczę szło/ *szła na jagody. Była bardzo
 girl.N.SG went.N.SG/ *went.F.SG on strawberries was.F.SG very
 zadowolona, że . . .
 happy.F.SG that
 ‘A/the girl went strawberry picking. She was very happy that . . .’
 (16) Pięć chłopców się spotkało/ *spotkali na wsi. Poszli do kawiarni.
 five boys REFL met.N.SG/ *met.PL on village went.PL to cafe.
 ‘Five boys met at the village. They went to a cafe.’

As for semantic agreement with person, there are no clear examples parallel to the aforementioned semantic agreement with number and gender. Instead, we briefly discuss several constructions that display some similarity to PAN in their dual person behaviour, yet they differ in other syntactic properties. We start with imposters, namely, constructions in which a 3rd person noun phrase is used to refer

¹⁶In this paper, we restrict the discussion to PAN because some of the distribution of nominative versus vocative forms in the overall pattern vary depending on the phonotactic form of kinship nouns, a confound we cannot fully elaborate on for reasons of space.

¹⁷We use the term semantic agreement to describe agreement that reflects the meaning of a noun phrase, instead of agreement with formal features that do not get semantically interpreted.

to the speaker or the interlocutor. According to Collins and Postal (2012), these DPs contain a pronoun in their structure, and their structural and interpretive properties follow from this additional pronominal. Polish imposters, like their English counterparts (Collins and Postal, 2012), require grammatical person agreement, as in (17). That is, the embedded pronoun cannot trigger local subject-predicate agreement.

- (17) Wasza sługa się odważył/ *odważył-em/ *odważył-eś . . .
 your servant REFL dared.3.SG/ *dared.1.SG/ *dared.2.SG
 ‘Your humble servant dared . . .’

Proper names, when used to address an interlocutor and when morpho-syntactically marked as a vocative, can only trigger 2nd person agreement, as in (18).¹⁸ Note that unlike in English, a vocative can be linearized inside a clause; that is, it does not have to be at the left periphery, but even then, it displays vocative case and vocative distribution.

- (18) a. Masz/ *Ma Janie papierosa?
 have.2.SG/ *have.3.SG Jan.VOC cigarette?
 ‘Jan, do you have a cigarette?’
 b. Ma/ *Masz Jan papierosa?
 have.3.SG *have.2.SG/ Jan.NOM cigarette?
 only as ‘Does Jan have a cigarette?’

Other honorific and title-denoting nominals, such as *doktor* ‘doctor’, also do not display variable agreement, as seen in (19). Finally, the structure cannot be an appositive with a *pro* because in comparable appositive constructions the pronoun must be overt, and predicates, instead of displaying variable agreement, obligatorily agree with the features of the pronoun, as in (20).

- (19) a. Masz/ *Ma doktorze papierosa?
 have.2.SG/ *have.3.SG doctor.VOC cigarette?
 ‘Doctor, do you have a cigarette?’
 b. *Masz/ Ma doktor papierosa?
 *have.2.SG/ have.3.SG doctor.NOM cigarette?
 only as ‘Does the doctor have a cigarette?’
 (20) *(My) lingwiści jesteśmy pracowici.
 we linguists are.1.PL hard-working
 ‘We linguists are hard-working.’

Finally, in very colloquial contexts when the subject is salient, the interlocutor version of PAN can be dropped, while retaining the 3rd person agreement. For example, (21) is reported as felicitous in a context when the interlocutor is part of a discourse situation in which someone suggests inquiring about cigarettes.¹⁹ We believe these examples constitute a case of *pro*-drop when a subject with pronominal

¹⁸Contemporary Polish increasingly exhibits a syncretism between the nominative and the vocative form of proper names. Here we use a proper name that clearly marks the two cases.

¹⁹We thank an anonymous reviewer for bringing this example to our attention.

properties can remain unpronounced (Polish is a canonical *pro*-drop language), thus further highlighting the pronominal dimension of the structures based on PAN.

- (21) Ma papierosa?
 has.3.SG cigarette
 ‘Do you have a cigarette?’

To summarize, PAN is unlike other R-expressions in that it denotes an interlocutor and the interlocutor interpretation is accompanied by variable agreement. However, PAN is also unlike a pronoun in that it can function both as an NP and a DP modifier and it can be the root of a regular R-expression. Table 1 summarizes the syntactic distribution of PAN.

PAN as . . .	Person agreement?	Structure?
R-expression	3rd person	DP-like
modifier	only gender/number	smaller than DP
pronoun-like	variable agreement (2 nd /3 rd person)	DP-like

Table 1: A summary of the properties of PAN

The data pattern presented in this section raises several questions. First, are the three syntactic distributions discussed in section 2 based on one or more representations stored in the lexicon? Second, what mechanism underlies the variable agreement attested with the interlocutor uses?

In the next section, we will argue that despite syntactic variability, all the syntactic uses of PAN are based on a single representation in the lexicon and further, that this representation does not differ significantly from other regular lexical nouns in Polish. Furthermore, we will argue that different uses correspond to different sizes of syntactic structure being projected from the same root, and that the critical variation in agreement patterns only arises at spell-out.

3. TOWARDS AN ACCOUNT OF THE ADDRESSEE-LIKE BEHAVIOUR OF PAN

Based on the empirical contrasts highlighted in the previous section, there emerges a picture where various PAN constructions, although differing in functional interpretation, share syntactic properties attributed to R-expressions. That is, unlike pronouns, PAN gives rise to regular DP behaviour. At the same time, it displays behaviour reminiscent of a pronominal valuation. How are we going to account for this inherent tension? The core insight behind our proposal builds on existing work that argues for a structural connection between a syntactic person feature and a semantic index (for example, Heim 2008, Sudo 2012 and Kučerová 2018). Since DPs contain a person feature, and since pronominal behaviour requires an association with a semantic index, we can utilize the person feature and its connection to a semantic index to account for PAN’s syntactic and interpretive variation. Specifically, we argue that the different uses of PAN are based on the same root from the lexicon, but differ in how

much functional structure is projected in syntax. When the nominal structure projects only up to *nP*, we obtain the modification use of PAN. When the structure projects all the way up to DP, that is, the nominal projection contains a person feature, then we obtain either a regular R-expression, or the interlocutor version of PAN. We argue that the distinction lies in whether or not PAN's person feature is associated with a semantic index within the DP itself. As for the agreement variation in the interlocutor variant of PAN, we attribute the variation to the timing of feature valuation and to whether or not spell-out and the syntax-morphology interface reflect the unvalued syntactic feature or the value associated via the syntax-semantics interface. The proposal is thus positioned in the family of recent proposals that puts emphasis on a person feature as a syntactic feature that must be licensed by the syntax-semantics interface (CI) (Zubizarreta and Pancheva, 2017; Pancheva and Zubizarreta, 2018; Kučerová, 2018), and explores the consequences for the profile of syntactic derivations that include person valuation.

Specifically, we argue that the variation between the R-expression use of PAN and the interlocutor type is a derivational consequence of the person feature not being valued in narrow syntax. Since the person feature is not valued in syntax and because unvalued features do not yield a derivational crash (see, e.g., Béjar 2003), the person feature may remain unvalued throughout the whole derivation. When it remains unvalued and morphology realizes it as a morphological default (descriptively, the 3rd person), we obtain the R-expression type of PAN.

Crucially, as extensively argued, for instance, in Kučerová (2018) and Kučerová (2019), unvalued syntactic features can under certain circumstances semantically enrich their value during transfer to the syntax-semantics interface. We extend Kučerová's reasoning for gender and number to person, and propose that the interlocutor version of PAN arises when a syntactically unvalued person feature gets enriched by the syntax-semantics interface (technically via a structural association with a semantic index, modelled as a complex structure built around a person feature; see Sudo 2012 and Podobryaev 2017 for independent empirical motivation). Assuming that subject-predicate agreement is a post-syntactic operation (Bobaljik, 2008), morphology can refer either to the unvalued syntactic feature that yields 3rd person agreement, or to the CI-informed value that yields the 2nd person agreement pattern.²⁰

Before we delve into the technical details of the proposal, two notes are in order. First, in our implementation, only the structure of interlocutor PAN associates with a semantic index at the DP level. As for R-expressions, we assume that their association with a semantic index requires an additional structural operation, such as movement (see, e.g., Roelofsen 2011). The intuition we pursue here is rooted in Heim

²⁰An anonymous reviewer raised the question of why we do not see the same variability with 1st and 2nd person pronouns and their agreement. We assume that 1st and 2nd person pronouns are merged as minimal pronouns, that is, D with a semantic index. Consequently, there is no stage in the derivation when there would be an unvalued syntactic person feature. Since variability crucially requires an unvalued syntactic feature, we do not see it with these pronouns.

(1998)'s proposal that indices come in two varieties: inner and outer indices. Effectively, our proposal posits that while R-expressions typically associate with an outer index exclusively, the presence of an unvalued person feature creates a structural possibility of this person feature giving rise to an inner index. That is, the pronominal-like behaviour (interlocutor reading) is a consequence of a structural shift from an outer to an inner index.

Second, if the person feature is associated with D (see, e.g., Ritter 1995 and Béjar and Rezac 2003) and gets valued only at spell-out, then the DP must form a phase because only phase heads can have their features altered by the syntax-semantics interface. The reason is that at Transfer of a phase, the complement of the phase head is sent to morphology, and is no longer available to further syntactic operations, but the edge of the phase remains in the syntactic derivation even after the spell-out of its complement. That is, if a syntactic feature is valued at the syntax-semantics interface, such a feature must be on a phase head since this is the only location where interface operations can affect, albeit indirectly, subsequent syntactic operations²¹ (see, for example, the discussion in Kučerová 2019 about the place of interface valuations within the Y-model). Consequently, interface feature valuation provides a valuable methodological tool for detecting phasehood that is fundamentally distinct from arguments based on extraction properties, and potentially confounded by locality restrictions inherent to narrow-syntax.²²

Third, it is useful to clarify the extent of the argument we make, given the ongoing debate in the Slavic literature on whether or not article-less languages are phases (see, e.g., Bošković 2009 versus Migdalski 2001). We make the claim that the Polish nominals we investigate here are phases. That is, in the present proposal, D stands for a nominal phase head.²³ We make no assertion as to whether Slavic, and specifically Polish, have overt determiners, and whether Polish has a Determiner head in the same sense as English or Italian.

The remainder of this section focuses on the derivation of PAN in its distinct guises. We focus on the locus of syntactic variation, that is, at the point in the derivation when the interlocutor association becomes available. We largely ignore the question of how the semantic index obtains its interpretation. As far as we can tell, any proposal on how to treat indices on pronouns (for instance, Kratzer 2009) works well with the core syntactic proposal put forward here.

²¹An anonymous reviewer raised the question of whether features in the specifier might be altered as well. This sounds like a logical possibility; however, we are not aware of data discussed in the literature that would point to specifiers as a locus of such an alternation. If it turns out that specifiers do participate in these processes, the core of the proposal still holds: it is the edge of a phase which is accessible to the syntax-semantics interface.

²²That is, locality restrictions on syntactic processes like movement could be restricted by phases as structural units interacting with the interfaces, but they equally could be based on locality restrictions inherent to narrow syntax.

²³Which could even be a non-fixed head, as in Bošković 2014.

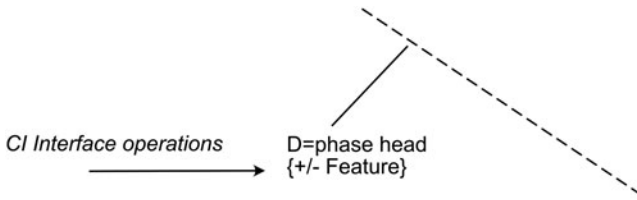


Figure 1: Phase head features can be targeted by the CI-interface

3.1 Feature manipulation at the interfaces

Work on the execution of phase theory (Chomsky 2001 and subsequent work) has emphasized the role of the interfaces in the process. It has raised the theoretical possibility that the interfaces may alter feature composition, and the valuation of narrow syntax features, at the syntax-morphology interface. For example, in the Distributed Morphology approaches to late insertion of roots, root insertion effectively resets the zero features of the root position. Works that utilize some notion of post-syntactic agreement (e.g., Bobaljik 2008, Arregi and Nevins 2012, and Norris 2014) rely on morphological feature copying. When we adopt the conception of spell-out as a derivational window during which interface operations can affect the feature composition of heads, we expect features to be altered not only at the syntax-morphology interface but also at the syntax-semantics interface. We argue that the syntactic variation attested in the different uses of PAN stems from such interface feature interactions. That is, when PAN projects a DP structure, unvalued syntactic features on D as a phase head can be altered by the syntax-semantics interface, as shown in Figure 1.

Crucially, as shown in Figure 2, morphological spell-out targets only the complement of a phase head. That is, the edge of the phase – the locus of features targeted by the syntax-semantics interface at Transfer – remains accessible to subsequent syntactic operations and can be utilized in post-syntactic operations targeting structurally higher syntactic structures.

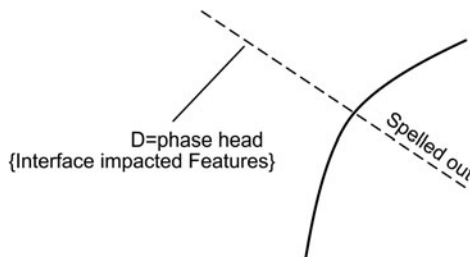


Figure 2: Interface impacted features remain in the derivation

3.2 How to derive different PANS

In this section we provide detailed derivations for the different uses of PAN, focusing on the distinction between the R-expression and the addressee-oriented use. The grammar fragment is constructed to highlight which parts of the derivations drive the distinct uses and in what structural configuration such a variation can come about. The first steps of the derivation are the same for all uses of PAN, including the modification use.

For concreteness we assume that the first step of the derivation creates a derivational workspace, that is, an empty set as a placeholder for late insertion of a root (see, e.g., De Belder and van Craenenbroeck 2015 and Kučerová and Szczegielniak 2019). This placeholder merges with a nominalizing functional head (*n*) which creates a nominal root structure. We assume, following much work on gender (see, e.g., Kramer 2015 and Kučerová 2018) that *n* contains an unvalued number and gender feature. These unvalued syntactic features project in syntax, creating a *n*P structure. In languages like Polish, gender is an inherent property of a root. For concreteness, we implement this inherent property of a root as an indexical feature on the root, following Acquaviva (2014).²⁴ This indexical feature is mapped onto *n* (and any other instances of gender that enter into an Agree chain with *n*) when the root is late inserted. The first derivational steps are exemplified in Figure 3.

For concreteness, we assume that the valued number feature is merged as a separate functional head (Num, as in Ritter 1993, 1995), although nothing in the proposed derivation hinges on this derivational decision. The number feature could have been part of *n*, or associated with the root.²⁵ By Agree, as matching and valuation, the unvalued number feature on *n* gets valued by the valued number feature on Num. This part of the derivation is schematized in Figure 4.

Finally, the D head is merged in the structure (Figure 5). We assume that D is a bundle of unvalued ϕ -features and an unvalued person feature (Ritter 1995, Béjar and Rezac 2003).²⁶ The unvalued ϕ -features trigger Agree with the valued number feature on Num and the gender feature on *n*. By matching and valuation, the ϕ -features on D get valued (with the number feature getting valued immediately, and gender only as part of late insertion of the indexical root).

²⁴In order to resolve the tension between gender being an idiosyncratic property of a root and theoretical arguments in favour of roots lacking syntactic features, Acquaviva (2014) proposes that gender is an unvalued syntax feature, which yields Agree, but the morphological realization of the feature is based on indexical information stored with a root in the lexicon. When the root is late inserted, morphology maps the indexical information onto the gender Agree chain associated with the given root. For proposals that treat gender as a valued gender feature, see, for example, Kramer (2015). Note that here the notion of being indexical pertains solely to phonological properties; there is no connection to semantic indices.

²⁵See, for example, Klockmann (2017) for a different account of number in the nominal domain. Since our focus is on person, the exact implementation of the number feature and its placement in the nominal domain is not consequential to us.

²⁶As an anonymous reviewer pointed out, D might be the locus of other features such as definiteness. Here we focus on ϕ -features and person.

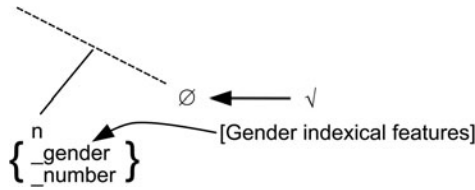


Figure 3: Indexical gender on the root values *n*

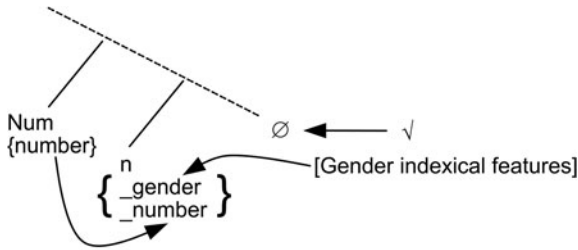


Figure 4: Num merged as a valued number-feature

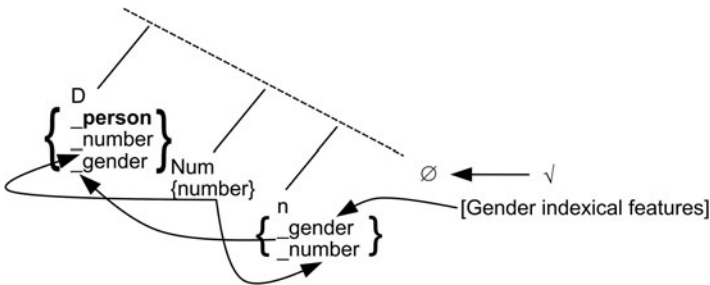


Figure 5: D merged as a bundle of unvalued ϕ -features and an unvalued person feature

Crucially, the person feature on D remains unvalued. Since D is a phase head, the structure is spelled out with an unvalued person feature. As we outlined in the opening of this section, we adopt a model of grammatical architecture where spell-out creates a derivational window during which interface operations can impact feature composition of phase heads (see, for example, Kučerová 2018, 2019, 2020 for further discussion). In the case of nominals, this amounts to the feature composition of D. Specifically, we argue that the syntax-semantics interface (CI, using

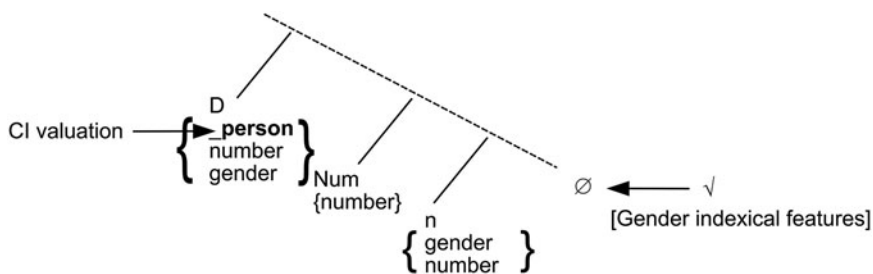


Figure 6: Person feature on D at the interface

Chomsky's terminology) can manipulate unvalued features on D. This reasoning has a precedent in Distributed Morphology approaches where, for example, root insertion resets an empty set to a valued set, or morphological operations reset unvalued syntactic features to a morphological default. In our case, since only the person feature on D remains unvalued – that is, it does not receive any value from narrow syntax – the syntax-semantics is able to provide a semantically-licensed value, as schematized in Figure 6. Alternatively, the syntax-morphology interface realizes the person feature as a default.

The rationale behind having the person feature interact with the syntax-semantics interface is based on two insights: (i) person is a syntactic feature that requires semantic licensing, and (ii) since the phase head remains available to subsequent syntactic computations, features at the edge of the phase are accessible to the syntactic derivation even after the corresponding phase has been transferred to the syntax-semantics interface.

To elaborate on the first point: there is a line of syntactic work that proposes that person is a special syntactic feature in that it requires syntax-semantics licensing for purposes of event and participant anchoring (see, e.g., Ritter and Wiltschko 2014, Zubizarreta and Pancheva 2017, Pancheva and Zubizarreta 2018). Under this view, syntax-semantics licensing is a derivational process that maps a purely syntactic feature onto semantic structures such as [\pm participant, \pm speaker].²⁷ That is, the person feature has the potential to be altered by the syntax-semantics interface, and in turn, to become the locus of agreement and interpretive variation attested with PAN.²⁸ To further elaborate on the second point, the theory states that spell-out is

²⁷Note that some syntactic literature treats participant and speaker as syntactic features. For us, these notions are interpretive concepts that arise only at the level of semantic interpretation. Note also that it is inconsequential to us what the geometry of these features is. For an example of a technical implementation of such linking in terms of semantic indices see Kučerová (2018, 2019).

²⁸An anonymous reviewer inquired whether other features have the same potential, and whether the theory might overgenerate. This is an important point for which we do not have a definite answer. There is a variety of semantic and syntactic facts that point to the person feature being privileged with the mapping of narrow syntax onto semantic interpretation. To our knowledge, the only other syntactic feature sharing this privileged status is tense. It is

in its nature asynchronous. The theory assumes that the part of the structure that is sent to morphology (i.e., the complement of the phase head) is no longer accessible to further syntactic operations, but the edge of the phase remains in the derivation, even when the whole phase has been transferred to the syntax-semantics interface. This point is typically not made explicit in current work on phase theory. However, it is an inherent consequence of the assumption that phases are semantically complete units, but only the complement of the phase head is sent to the syntax-morphology interface. Consequently, features at the edge of the phase can be altered by the syntax-semantics interface and remain accessible to further syntactic derivation because they are not spelled out immediately. This allows, in turn, for the person feature to become a potential locus of agreement variation without necessarily yielding differences in semantic interpretation, simply because it is located at the phase edge.

To summarize the critical point: the person feature remains unvalued in narrow syntax. When the feature reaches the interfaces, the syntax-semantics interface can link the narrow syntax feature to a [\pm participant, \pm speaker] representation. The syntax-morphology interface can then either refer to the semantically informed value of the person feature, or it can map the unvalued syntactic feature onto a default morphological realization.

With this background assumption clearly spelled out, we can now return to the derivations. As demonstrated in Figure 5, after D is merged, the narrow syntax derivation returns a structure with the gender and number feature valued, but the person feature unvalued. At spell-out, the syntax-semantics interface associates the unvalued syntactic feature with a [\pm participant] semantic feature, where the [$-$ participant] value will return the R-expression use of PAN, and the [$+$ participant] output corresponds to the addressee type of PAN. Let us first consider the derivation of PAN as an R-expression, as in (1), repeated below as (22).

- (22) Nie znam tej pani_i, ale wiem, że ona_i tu nie pracuje.
 not know this PAN.GEN.F.SG_i but know that she_i here not work.3.SG
 'I do not know this lady but I know she does not work here.'

In this case, as schematized in Figure 7 for *tej pani* 'this lady', the unvalued person feature from narrow syntax is associated with the [$-$ participant] semantic value. When the DP enters an agree relation with a predicate, the morphology component can either refer to the unvalued syntactic default, or it can take into account the semantically informed value. In both cases, the output converges on what is descriptively characterized as 3rd person agreement.

The case that provides insight into the question of the categorization of pronouns versus R-expressions arises when the unvalued person feature is associated with the

plausible that these features are privileged because of their role in associating syntactic event structures with tense and event interpretations, as suggested in Ritter and Wiltschko (2014); Zubizarreta and Pancheva (2017) and other work, but more empirical work needs to be done to fully understand these processes.

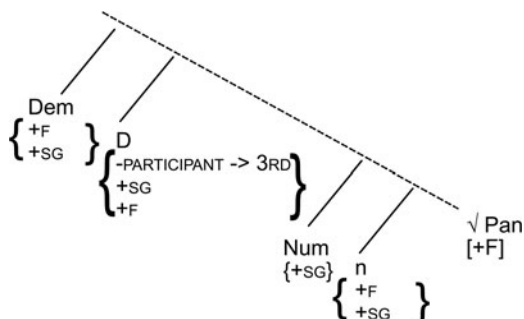


Figure 7: *tej pani* ‘this lady’

[+participant] value. In such environments, we observe an agreement alternation between the expected 3rd person agreement and the structurally unexpected 2nd person agreement, as in (13), repeated below as (23). Recall that the predicate agrees with the structural subject, that is, PAN in nominative, not the vocative.

- (23) a. (Szanowny panie;), **ma** pan_i papierosa?
 respected Mr.VOC.M.SG have.3.M.SG Mr.NOM.M.SG cigarette.ACC
- b. (Szanowny panie;), **masz** pan_i papierosa?
 respected Mr.VOC.M.SG have.2.M.SG Mr.NOM.M.SG cigarette.ACC
 ‘Hey Mister, do you have a cigarette?’

How does this alternation arise? After the syntax-semantics interface associates the syntactically unvalued person feature with the [+participant] value, more specifically [+participant, –speaker], the complement of the phase head is spelled out, but the edge of the phase remains in the derivation. After the DP combines with the rest of the structure and the predicate (for concreteness, the T head) probes for the closest DP with matching ϕ -features, an agree link between T and DP is created. After the corresponding part of the structure is sent to the syntax-semantics interface, the morphology component matches the accessible DP features onto the predicate. However, unlike in the case of the R-expression use of PAN, morphology can return two different values. When morphology targets the unvalued syntactic person feature, the person feature gets realized as the morphological default, that is, 3rd person agreement. When morphology targets the syntax-semantics interface value, it returns the 2nd person agreement as the best match for the [+participant, –speaker] value.²⁹ The two agreement options are schematized in Figure 8.

²⁹An anonymous reviewer asks why morphology does not stick to one value, namely, the semantic one. We believe the answer lies in the primacy of syntactic derivations: even though the syntactic feature is unvalued, it is still the primary input for morphology. The CI-informed structure carries more specific information (which according to Distributed Morphology is a determining factor for lexical insertion), however, since it is not a syntactic value it does not categorically overwrite the unvalued syntactic feature.

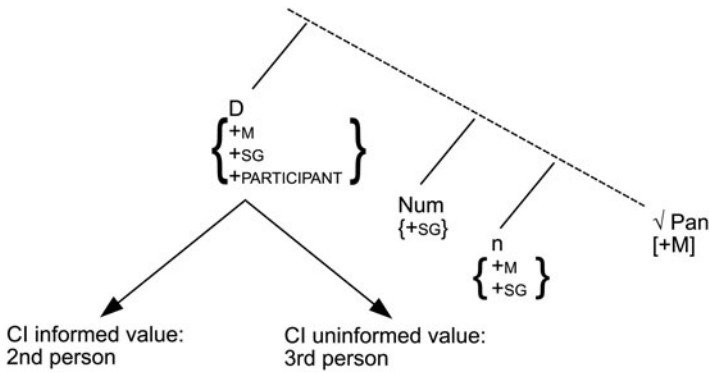


Figure 8: PAN 2nd/3rd person alternation

There remains one important aspect of the interpretive and syntactic properties of the addressee-type of PAN to be addressed, namely, that PAN can only be valued as [–speaker], and not as [+speaker]. We argue that the restriction has to do with the politeness nature of PAN. According to Portner et al. 2019, politeness marking has two separate components: one is syntactic licensing,³⁰ the other one is pragmatic licensing. The idea behind pragmatic licensing is that it maps a social distancing interpretation onto a context update that is anchored to a discourse participant structure.³¹ For the politeness interpretation to go through, it is necessary for the inherently present speaker-anchoring to be spatially, and in turn socially, distant from the participant value encoded in the representation of PAN. While social and spatial distancing between the speaker and the addressee is possible, a social and spatial distancing within a speaker is nonsensical.³²

4. PREDICTIONS MADE BY THE PAN ANALYSIS

In this section, we discuss some of the predictions made by our proposed account of PAN.

4.1 PAN in structures without a D projection

The previous discussion highlighted the role of a person feature and its corresponding role in the interlocutor interpretations associated with PAN. The consequence is that

³⁰We discuss how our syntactic licensing differs from that of Portner et al. (2019) in section 4.2.

³¹For reasons of space we cannot fully elaborate on the proposal here. For technical details we refer the reader to Portner et al. (2019).

³²Distancing can be created formally, for example, in a self-directed speech, but then the speaker must be encoded in the syntactic layer as a 2nd person (i.e., the addressee). That is, the pragmatic part of the licensing will go through only if it can be built of a syntactic representation where the participant encoding would provide two syntactically distinct values for participant anchoring.

when D is not projected, no interlocutor interpretation is possible. As we have seen in (5), repeated below as (24), PAN can also be used as a nominal modifier.

- (24) a. *Nasz wspaniały pan Dyrektor poszedł na emeryturę.*
 our.M.SG wonderful.M.SG PAN.M.SG director.M.SG went.M.SG on retirement
 ‘Our wonderful (male) director retired.’
- b. *Nasza wspaniała pani Dyrektorka poszła na emeryturę.*
 our.F.SG wonderful.F.SG PAN.F.SG director.F.SG went.F.SG on retirement
 ‘Our wonderful (female) director retired.’

Unlike other prenominal modifiers in Polish, PAN must be adjacent to the noun it modifies and it must agree with its ϕ -features, as seen in (6), repeated below as (25).

- (25) *ta (*pani) nasza (*pani) wspaniała pani*
 this.F.SG PAN.F.SG our.F.SG PAN.F.SG wonderful.F.SG PAN.F.SG
dyrektorka kichnęła
 headmaster.FEM.SG sneezed
 ‘This wonderful headmistress of ours sneezed.’

We propose that these modification uses are based on smaller nominal projections. Namely, in this case, PAN corresponds to *nP*, and it adjoins in *Spec, nP* of the noun it modifies. We argue that a local relation with the modified noun is necessary for the semantic component to associate the politeness interpretation with the nominal. In turn, the syntactic position accounts for the adjacency restriction, as well as the modifier-like interpretation.

As for PAN’s ϕ -feature properties, for concreteness, we assume that the ϕ -feature valuation arises via concord.³³ Such a concord operation effectively mutes the indexical gender features otherwise associated with the root of PAN.³⁴ Technically, we follow Norris (2014) in that concord is a result of two processes: syntax creates a feature percolation structure, and morphology then copies values onto the percolated features. We slightly modify Norris’s account by assuming that for us, roots are inserted late. When morphological insertion targets the concord structure as a trigger for feature copying (see Norris 2014 for a technical implementation), morphologically realized features are fully determined by the concord structure, instead of the indexical gender on the late inserted root.³⁵ A schematic version of the derivation is given in Figure 9.

³³See, for example, Norris (2014) for an extensive discussion of why ϕ -feature agreement with nominal modifiers might not be based on Agree.

³⁴See the treatment of indexical gender in section 3.2.

³⁵An anonymous reviewer asked whether concord is necessary for us. We could also implement the derivation using Agree but we would need to have a principled way to block morphological realization of the indexical features of PAN on the Agree chain between PAN and the corresponding head noun. The concord mechanism proposed in Norris (2014) eliminates the problem of timing of morphological realizations.

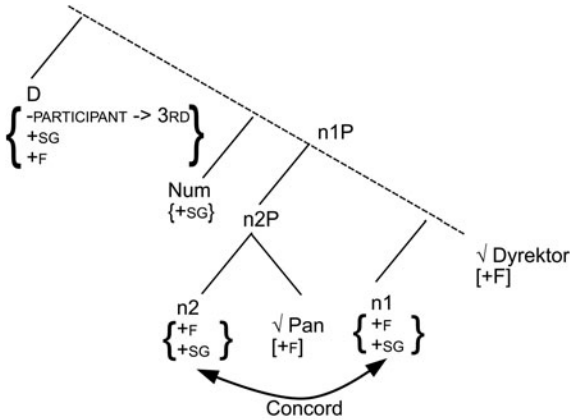


Figure 9: *pani Dyrektorka* PAN.F.SG DIRECTOR.F.SG ‘Madame Director’

Another place where we observe nominal structures lacking a D projection to be incapable of providing an interlocutor interpretation is the use of PAN as a possessor.³⁶ In Polish, possessors are adjectives morpho-syntactically. That is, when PAN is merged as a possessor it is embedded in an adjectival projection. Since there is no D in the structure, these uses never yield an interlocutor interpretation, unlike structures with possessive pronouns, as demonstrated in (26).

- (26) a. * pańska wysokość
 PAN.ADJ.F.SG highness.F.SG
 intended: ‘your highness’
- b. wasza wysokość
 your.F.SG highness.F.SG
 ‘your highness’

4.2 Left periphery feature valuation as an alternative?

The present analysis ties the interlocutor type of PAN with the phasehood status of DPs. The analysis thus structurally differs from proposals that argue for a left-periphery functional projection that encodes the speaker/addressee orientation as a feature that must enter into an Agree relation with a person feature on a DP. Here we compare our own proposal with two influential proposals that argue for the presence of a left-periphery functional projection that enters into an Agree-like relation with the relevant DP, namely, the proposals spelled out in Sigurðsson (2004) and Portner et al. (2019).

Sigurðsson (2004) argues for a [\pm speaker] feature introduced at the left periphery, which enters into an Agree-like relation with DPs within the corresponding clause. The proposal assumes that person-related features are logophoric, that is, they are not subject to locality restrictions. Further, the agree relation is selective:

³⁶We thank an anonymous reviewer for inquiring about possessor uses of PAN.

if there is more than one pronoun to be bound by the left periphery, these distinct pronouns are associated with an index that selectively identifies them for the purposes of Agree with the left-peripheral person representation. That is to say, the proposal addresses the question of how a pronominal, as well as a pronominal-like structure, gets bound by a [\pm speaker] feature, but it does not address the question of how a full lexical NP can obtain a pronominal-like interpretation. For the sake of argument, let us assume that once the unvalued person feature is established in the syntactic structure, the association of the person feature with a [\pm speaker] feature takes place only at the level of syntactic association with the left periphery, as opposed to the level of spell-out of the DP itself, as argued in our proposal. First of all, it is not immediately clear how such an account could distinguish between the interlocutor use of PAN, which can trigger a subject-predicate agreement, and structures such as imposters that also obtain an interlocutor interpretation, but whose association with the interlocutor speaker does not translate into agreement relations.³⁷

The issue is more general and points to the main difference between our account and that of Sigurðsson (2004). For Sigurðsson, the timing of structural relations is irrelevant because the interlocutor association takes place only at the very end of the derivation. Moreover, the phase status of the DP itself is also irrelevant. In order to account for the dual agreement pattern observed with the interlocutor type of PAN, agreement would need to be established only after the complete clause, including its left periphery, has been spelled out. Furthermore, because the DP would in such cases be uniquely associated with an addressee interpretation, it is not clear how and why this dual agreement arises. That is to say, Sigurðsson (2004) might be a well-suited account for modelling an association of pronouns with interpretive [\pm speaker] features. However, his proposal does not extend to the type of person feature interactions we observe with PAN.

Portner et al. (2019) also assume that there is a designated functional projection at the left periphery that enters into an Agree relation with the relevant DP. In their proposal, the relevant feature pertains to politeness, not person per se. Crucially, this feature *c* strictly obeys locality, that is, in this respect it is different from the logophoric person feature of Sigurðsson (2004). Consequently, because *c* needs to enter into an Agree relation with the cP projection at the periphery, the agree relation is subject to intervention effects. As Portner et al. (2019) report, intervention effects are indeed attested with the politeness nominals they investigated. They provide an example from French when an honorific title, grammatically a 3rd person nominal, can in and of itself obtain a politeness interpretation via agree with cP. However, a structurally lower element (a bound pronoun in their case) must be bound by the grammatical 3rd person nominal because the nominal behaves as an intervener between cP and the pronoun. Their original example (Portner et al. 2019: 25, ex. (53)) is given in (27).

³⁷An anonymous reviewer raised the question of how our account distinguishes between imposters and nominals like PAN. For reasons of space, we cannot fully elaborate on other structures but the core idea is that only PAN allows the interface valuation of an unvalued person feature. In imposters the interface valuation only targets *pro* in the structure of imposters, as in Collins and Postal (2012).

- (27) M. le Président devrait appeler sa/*votre mère.
 Mr. the president should call.INF his/*your mother
 'Mr. President should call his mother.'

This intervention configuration is exactly parallel to the configurations in which the interlocutor version of PAN triggers 2nd person agreement. If the interlocutor valuation of PAN was indeed based on a syntactic Agree relation with a left-peripheral functional projection, the Agree relation between the subject and the predicate should be subject to the same intervention facts as the French example in (27). However, as we have seen throughout this article, PAN is rather different. Its feature valuation is subject to locality restrictions, but the valuation is localized at the phasehood of a DP instead of being based on Agree with the left periphery.

5. CONCLUSIONS AND OPEN QUESTIONS

In this article we presented an analysis of the different syntactic uses of PAN. We argue that all instances of PAN are based on the same root (more precisely the *n*P projected above this root). They differ in how much syntactic structure they project and whether or not the unvalued person feature on them becomes licensed by the syntax-semantics interface as an interlocutor. The proposal thus provides a novel methodology for determining the phase-status of a syntactic head, based on interactions with the syntax-semantics module, and provides evidence that at least certain Polish nominals are phases.

The proposal also raises a number of questions. The most pressing one is how general this type of interface licensing of the person feature is. Under the strong interpretation of the proposal, any lexical DP should have the same freedom in person valuation as PAN. That is, any 3rd person DP should be able to be interpreted as an interlocutor. This prediction is partially borne out. Any lexical noun phrase can be used as a vocative, that is, it can be valued as [+participant, –speaker], as in (28).

- (28) Hey, Sam, how are you?

However, more needs to be said because, as we saw, vocatives display a different structural behaviour than PAN. In addition, vocatives are structurally rather different from arguments, the primary function of PAN we investigate here. For example, Ritter and Wiltschko (2020) argue that vocatives are unlike other DPs in that they are exempt from the case licensing requirement. We cannot fully delve into the case properties of PAN, but a number of authors propose that there is a connection between person and case licensing, specifically in the domain of the Person Case Constraint (e.g., Béjar and Rezac 2003; Rezac 2008; Richards 2008). It is quite plausible that there is an additional restriction on when the syntactically unvalued person feature can be enriched by the syntax-semantics interface, and that the restriction has to do with case licensing, more precisely with the temporal and structural restrictions on case licensing. For example, unaccusative arguments can be licensed in situ, and the same holds for raising-like constructions. Since case licensing has been tied to A-movement (see, for example, the discussion in Bošković 2002), it follows that Polish

is unlike English in that it does not require A-movement for case licensing. That is, it is likely that case licensing must be established differently in Polish than in a language such as English. Consequently, the connection between person and case might play out differently in Polish than in English. Another direction for future research concerns the exact syntactic status of kinship nouns, and whether there might be an additional structural reason for why they systematically behave like PAN.

It also seems that in addition to cross-linguistic differences in case licensing, the type of syntax-semantics licensing of person observed with PAN is restricted by some form of economy of derivation. As we have discussed, the syntax-semantic enrichment of features is possible only for features that do not get valued in narrow syntax. Moreover, it has been independently proposed that pronominal structures are preferred to full lexical noun phrases. That is, we expect an interlocutor interpretation to arise only when there is an additional factor involved. In the cases we discussed, there is an additional pragmatic factor, namely politeness, but, as extensively discussed in Portner et al. (2019), politeness nominals do not necessarily give rise to the type of syntactic interactions we see with PAN.³⁸ Finally, even when the economy of derivation can be violated in service of pragmatic interpretations, such as that of politeness, the incongruent valuation of the corresponding narrow-syntactic feature and its syntax-semantics-interface counterpart is highly marked. We speculate that such incongruent valuation is ultimately dispreferred.

REFERENCES

- Acquaviva, Paolo. 2014. Distributing roots: Listemes across components in Distributed Morphology. *Theoretical Linguistics* 40(3/4): 277–286.
- Arregi, Karlos, and Andrew Nevins. 2012. *Morphotactics: Basque auxiliaries and the structure of spellout*. New York: Springer.
- Béjar, Susana. 2003. *Phi-syntax: A theory of agreement*. Doctoral dissertation, University of Toronto.
- Béjar, Susana, and Milan Rezac. 2003. Person licensing and the derivation of PCC effects. *Amsterdam Studies in the Theory and History of Linguistic Science Series 4*: 49–62.
- Bhatt, Rajesh, and Martin Walkow. 2013. Locating agreement in grammar: An argument from agreement in conjunctions. *Natural Language and Linguistic Theory* 31(4): 951–1013.
- Bjorkman, Bronwyn M., and Hedde Zeijlstra. 2019. Checking up on (ϕ)-agree. *Linguistic Inquiry* 50(3): 527–569.
- Bobaljik, Jonathan. 2008. Where's Phi? Agreement as a post-syntactic operation. In *Phi-theory: Phi features across interfaces and modules*, ed. Daniel Harbour, David Adger, and Susana Béjar, 295–328. Oxford: Oxford University Press.
- Bošković, Željko. 2002. A-movement and the EPP. *Syntax* 5(3): 167–218.
- Bošković, Željko. 2009. More on the no-DP analysis of article-less languages. *Studia Linguistica* 63(2): 187–203.
- Bošković, Željko. 2014. Now I'm a phase, now I'm not a phase: On the variability of phases with extraction and ellipsis. *Linguistic Inquiry* 45(1): 27–89.

³⁸An anonymous reviewer also raised the question of why we only see an interlocutor interpretation but not a speaker interpretation. We do not have a principled answer to this question.

- Cardinaletti, Anna, and Michal Starke. 1999. The typology of structural deficiency: A case study of the three classes of pronouns. In *Clitics in languages of Europe*, ed. Henk C. van Riemsdijk, George Bosong, and Bernard Comrie, 145–234. Berlin: Mouton de Gruyter.
- Charnavel, Isabelle, and Dominique Sportiche. 2016. Anaphor binding: What French inanimate anaphors show. *Linguistic Inquiry* 47(1): 35–87.
- Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. Michael Kenstowicz, 1–52. Cambridge, MA: MIT Press.
- Collins, Chris, and Paul M. Postal. 2012. *Imposters: A study of pronominal agreement*. Cambridge, Mass.: MIT Press.
- De Belder, Marijke, and Jeroen van Craenenbroeck. 2015. How to merge a root. *Linguistic Inquiry* 46(4): 625–655.
- Déchine, Rose-Marie, and Martina Wiltschko. 2002. Decomposing pronouns. *Linguistic Inquiry* 33(3): 409–442.
- Diercks, Michael, Marjo van Koppen, and Michael Putnam. 2020. Agree probes down: Anaphoric feature valuation and phase reference. *Agree to Agree: Agreement in the Minimalist Programme*, ed. Peter W. Smith, Johannes Mursell and Katharina Hartmann, 347–390. Berlin: Language Sciences Press.
- Elbourne, Paul. 2005. *Situations and individuals*. Cambridge, MA: MIT Press.
- Heim, Irene. 1998. Anaphora and semantic interpretation: A reinterpretation of Reinhart's approach. In *The interpretive tract.*, ed. Uli Sauerland and Orin Percus, *MIT Working Papers in Linguistics*, vol. 25, 205–246. Cambridge, MA.: Massachusetts Institute of Technology.
- Heim, Irene. 2008. Features on bound pronouns. In *Phi-theory: Phi features across interfaces and modules*, ed. Daniel Harbour, David Adger, and Susana Béjar, 35–56. Oxford: Oxford University Press.
- Heim, Irene, and Angelika Kratzer. 1998. *Semantics in generative grammar*. Oxford: Blackwell.
- Klockmann, Heidi. 2017. *The design of semi-lexicity. Evidence from case and agreement in the nominal domain*. Doctoral dissertation, Universiteit Utrecht.
- Kramer, Ruth. 2015. *The morphosyntax of gender*. Oxford: Oxford University Press.
- Kratzer, Angelika. 2009. Making a pronoun: Fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry* 40(2): 187–237.
- Kučerová, Ivona. 2018. ϕ -features at the syntax-semantics interface: Evidence from nominal inflection. *Linguistic Inquiry* 49(4): 813–845.
- Kučerová, Ivona. 2019. On the role of person in the mapping of syntactic features onto their interpretable counterparts. *Canadian Journal of Linguistics/Revue canadienne de linguistique* 64(4): 649–672. doi: 10.1017/cnj.2019.22.
- Kučerová, Ivona. 2020. Labeling as two-stage process: Evidence from semantic agreement. In *Recent developments in phase theory*, ed. Jeroen van Craenenbroeck, Cora Pots, and Tanja Temmerman, 183–212. Berlin: Mouton de Gruyter.
- Kučerová, Ivona, and Adam Szczegielniak. 2019. Roots, their structure and consequences for derivational timing. *The Linguistic Review* 36(3): 365–387. <<https://doi.org/10.1515/tlr-2019-2022>>
- Migdalski, Krzysztof. 2001. A determiner phrase approach to the structure of Polish nominals. In *Generative Linguistics in Poland: Syntax and Morphosyntax. Proceedings of the GKIP-2 Conference held in Warsaw, Poland, 9–10 December 2000*, ed. Adam Przepiórkowski and Piotr Bański, 135–148. Warszawa: Instytut Podstaw Informatyki Polskiej Akademii Nauk.

- Norris, Mark. 2014. *A theory of nominal concord*. Doctoral dissertation, University of California, Santa Cruz.
- Pancheva, Roumyana, and Maria Luisa Zubizarreta. 2018. The person case constraint. *Natural Language and Linguistic Theory* 36(4): 1291–1337.
- Podobryaev, Alexander. 2017. Three routes to person indexicality. *Natural Language Semantics* 25(4): 329–354.
- Portner, Paul, Miok Pak, and Raffaella Zanuttini. 2019. The speaker-addressee relation at the syntax-semantics interface. *Language* 95(1): 1–36.
- Postal, Paul M. 1969. On so-called ‘pronouns’ in English. In *Modern studies in English*, ed. D. Reibel and Sanford Schane, 201–244. Englewood Cliffs, NJ: Prentice-Hall.
- Rezac, Milan. 2008. The syntax of eccentric agreement: The Person Case Constraint and absolutive displacement in Basque. *Natural Language and Linguistic Theory* 26(1): 61–106.
- Richards, Marc. 2008. Quirky expletives. In *Agreement restrictions*, ed. Roberta D’Alessandro, Susan Fischer, and Gunnar Hrafn Hrafnbjargarson, 181–213. Berlin: Mouton de Gruyter.
- Ritter, Elizabeth. 1993. Where’s gender? *Linguistic Inquiry* 24(4): 795–803.
- Ritter, Elizabeth. 1995. On the syntactic category of pronouns and agreement. *Natural Language and Linguistic Theory* 13(3): 405–443.
- Ritter, Elizabeth, and Martina Wiltschko. 2014. The composition of INFL. *Natural Language and Linguistic Theory* 32(4): 1331–1386.
- Ritter, Elizabeth and Martina Wiltschko. 2020. Interacting with vocatives! Presented at the virtual Annual Meeting of the Canadian Linguistic Association.
- Roelofsen, Floris. 2011. Free variable economy. *Linguistic Inquiry* 42(4): 682–697.
- Rutkowski, Paweł. 2007. The syntactic properties and diachronic development of postnominal adjectives in Polish. In *Formal Approaches to Slavic Linguistics: The Toronto Meeting 2006*, ed. Richard Compton, Magdalena Golezdzinowska, and Ulyana Savchenko, 326–345. Ann Arbor: Michigan Slavic Publications.
- Sigurðsson, Halldór Ármann. 2004. The syntax of person, tense and speech features. *Italian Journal of Linguistics* 16: 219–251.
- Sudo, Yasutada. 2012. *On the semantics of phi features on pronouns*. Doctoral dissertation, Massachusetts Institute of Technology.
- Szczegielniak, Adam. 2017. Dynamic phase heads. The case of the invisible DP in Slavic. In *A pesky set: Papers for David Pesetsky*, ed. Claire Halpert, Hadas Kotek, and Coppe van Urk, 301–311. Cambridge, MA: MITWPL.
- Wągiel, Marcin. 2014. From kinds to objects: Prenominal and postnominal adjectives in Polish. In *Complex visibles out there. Proceedings of the Olomouc Linguistics Colloquium 2014: Language use and linguistic structure*, ed. Ludmila Veselovská and Markéta Janebová, 457–476. Olomouc: Palacký University.
- Wechsler, Stephen, and Larisa Zlatic. 2003. *The many faces of agreement*. Palo Alto, CA: CSLI.
- Wurmbrand, Susi. 2017. Feature sharing or how I value my son. In *A pesky set: Papers for David Pesetsky*, ed. Claire Halpert, Hadas Kotek, and Coppe van Urk, 173–182. Cambridge, MA: MITWPL.
- Zubizarreta, Maria Luisa, and Roumyana Pancheva. 2017. A formal characterization of person-based alignment. The case of Paraguayan Guaraní. *Natural Language and Linguistic Theory* 35(4): 1161–1204.