

Person and Perspective Workshop

In honor of María Luisa Zubizarreta

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## Abstracts

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## 2nd person pronoun bound by Hr: Evidence from Magahi Addressee agreement

Deepak Alok (Rutgers University)

**Introduction:** Baker (2008) proposes the following principles:

1. a. A pronoun is 2nd person if and only if it is locally bound by Hr (or by 2nd person).
- b. A pronoun is 1st person if and only if it is locally bound by Sp (or by 1st person).

The idea is that there are no “native born” pronouns. They acquire their person features by being variable bound by an operator (also see Kratzer 2009). The motivation behind (1) is a kind of “crossover” effect (Kayne 2000). Baker discusses example such as (2) which he took to be a kind of crossover violation: a first person pronoun is often not possible when there is a third person nominal that denotes the speaker in the same clause.

2. Sp<sub>i</sub> [[The guy talking to you]<sub>i</sub> wants you to give \*me<sub>i</sub> money]

In this talk, I examine addressee agreement (Add-Agr), also known as allocutive agreement, in Magahi, an eastern Indo-Aryan language and show two pieces of morphological evidence in support of (1a). The first piece of evidence comes from the fact that there cannot be a mismatch between the feature that is represented by Add-Agr and the feature that is represented by 2nd person pronouns (2PPs) in the same clause. Add-Agr is argued to be a realization of an agreement of a functional head F with a syntactically expressed representation of an addressee “Hr” (for “hearer/addressee”) (Miyagawa 2012, 2017, after Speas & Tenny 2003). If we combine Add-Agr with (1a), we get a network of relationships where Hr participates in Add-Agr and also binds 2PPs in its domain. This is schematized in (3).

3. [<sub>FinP</sub> Sp Hr Fin+T [<sub>TP</sub> Sub you-ACC V]]].
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(3) predicts that there would never be a feature mismatch between Add-Agr and 2PPs in the same clause since both acquire their features from Hr. I show that this prediction is borne out in Magahi. The second piece of evidence comes from the fact that Add-Agr is impossible if a 2PP is already in agreement relation in a clause. I argue that this is because Hr and 2PPs are “syntactically the same” owing to (1a) and agreeing twice with the same goal is ruled out.

**Add-Agr:** In (4), the suffix *-i* on the auxiliary shows subject-verb agreement while the extra suffixes *-au*, *-o*, and *-ain* indicate the honorificity level (social status) of the addressee; *-au* for nonhonorific (NH, socially equal or inferior), *-o* for an honorific (H, socially superior), and *-ain* for a high honorific (HH, high social respect) addressee (in glosses, A: Add-Agr, S: subject agreement).

4. Ham jaa-it h-i/ h-i-**au**/ h-i-**o**/ h-i-**ain**  
 I go-PROG be-1.S be-1.S-NHA be-1.S-HA be-1.S-HHA.

‘I am going.’ (said to anyone/ to a friend (NH)/to a parent (H)/to a teacher (HH)).

Unlike Basque, Japanese, and Tamil, Add-Agr is found in all types of embedded clauses in Magahi: different types of complement clauses (5), adjunct clauses (6), and relative clauses (7). The only place where it is not found in Magahi is non-finite clauses (8). Subject agreement is also ruled out in such clauses.

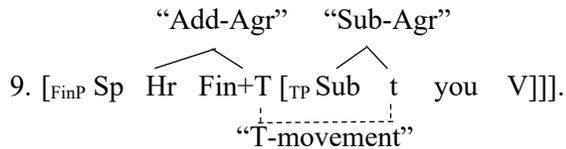
5. Bantee chill/dekhl/sochl/jaanl-**ain/o/au** ki Santee bhag gel- **ain/o/au** .  
 Bantee shouted/saw/thought/knew-3S.HHA/HA/NHA that Santee escape went.3S.HHA/HA/NHA  
 ‘Bantee shout/saw/though/knew that Santee ran way.’

6. Santee ail-**ain/o/au** [jab Bantee chal gel-ai/**ain/o/au**]  
 Santee came-3S.HHA/HA/NHA when Bantee walk went-3S/HHA/HA/NHA  
 ‘Santee came when Bantee left.’

7. laik [je uhaaN khaRaa h-**ain/o/au**] hamar bhaai h-**ain/o/au**.  
 Boy RELPRO there stand be-3S.HHA/HA/NHA my brother be-3S.HHA/HA/NHA  
 ‘The boy who is standing there is my brother.’

8. Santee [ **jaayel**-(\*ain/\*o/\*au) ] chahl-**ain/o/au**.  
 Santee to go wanted-3S.HHA/HA/NHA  
 ‘Santee wanted to go.’

I propose that “Hr” that undergoes Add-Agr is relatively low in the clause in Magahi. It is in Spec FinP contra to Miyagawa (2012, 2017) where it is in higher “speech act projections” which found primarily in root clauses. Furthermore, I assume that the honorificity feature is on T in Magahi and Add-Agr takes place when T moves to Fin. Finite T can then agree with both Hr and the subject, as shown in (9).



### No feature mismatch between Add-Agr and the 2nd person pronoun

Unlike verbal domain where all three levels of honorificity features are spelled out as three different suffixes; *-au*, *-o*, and *-ain*, the 2PP has different form for HH *apne* but has the same form for NH and H *tu*. When *apne* is used in a clause, the verb must bear the HH Add-Agr marking *-ain*, not NH or H marking *au/o*, as in (10a) and when *tu* is used, the verb cannot bear the HH marking *-ain*, as in (10b).

10. a. Santee      *apne-ke*      *dekhl-ain/\*au/\*o*.      b. Santeeaa      *tora*      *dekh-l-au/o/\*ain*.  
       Santee you.HH-ACC saw-3S.HHA/\*NHA/\*HA      Santee you.HH-ACC saw-3S.NHA/HA/\*HHA  
       ‘Santee saw you.’      ‘Santee saw you.’

I argue that the feature matching between Add-Agr and 2PPs is possible because the Hr that participates in Add-Agr also syntactically binds the 2PP inside the clause, as shown in (3) above.

### No Add-Agr if 2nd person pronoun is already in agreement relation

Unlike with the 1st and 3rd person subject, Add-Agr is impossible with the 2nd person subject. (11) shows agreement in person and honorificity with the subject. Add-Agr marking makes (11) ungrammatical.

11. a. Tu      *jaa-it*      *h-eN/a-(\*au/\*o)*.      b. *Apne*      *jaa-it*      *h-thin-(\*ain)*.  
       You.(N)H go-PROG be-2.(N)H.S-(\*NH/\*H.A)      you.HH go-PROG be-2.HH.S-(\*HH.A)  
       ‘You (a peer/parent) are going.’      ‘You (a professor) are going.’

However, as we seen in (10), Add-Agr is possible when the 2PP is an object. The difference between (11) and (10) is that in (11) the subject is an agreement relation while in (10) the object is not. The following generalization emerges:

12. Addressee agreement is barred if and only if another expression of the addressee triggers agreement on the verb.

(12) has crosslinguistic validity. Tamil, like Magahi, has subject agreement but not object agreement. Like Magahi, Tamil allows Add-Agr on clauses with 2nd person objects, but not with 2nd person subjects (McFadden 2017). Basque, on the other hand, has subject agreement as well as object agreement. Add-Agr is barred if 2nd person is either the subject or the object (Oyharçabal 1993). The suspension of Add-Agr in the presence of agreeing 2PP can be deduced from a more general principle of morphosyntax, sometimes called “Kinyalolo’s Generalization”: Agreement on one head is silent if and only if its features are predictable from agreement on another, which is proposed based on the study of Bantu languages such as Kilega. Kilega has both C-agreement with a wh-operator and T-agreement with the subject, as in (13a). However, when there is a subject that moves to Spec CP, only agreement on C is found not on both C and T as in (13b).

13. a. *Bú-ni*      *bú-mú-ná-kúbul-ílé*      *má-zi?*      b. *Názi*      *ú-(\*á)-ku-kit-aga*      *bu-bo?*  
       14-how 14.CA-2.PL.S-MOD-pour-PRF 6-water      1.who 1.CA-(\*1.S)-PROG-do-HAB 14-that  
       ‘How could you have poured water?’      ‘Who usually does that?’

Kinyalolo (1991) and Carstens (2005) propose that agreement on T is suppressed in (13b) because C agrees with “the same nominal”, rendering the agreement features on T predictable. I argue that this is also true for (11) in Magahi. The relationship between Hr and the 2PP in Magahi is analogous to the relationship that a moved wh-phrase has with the copy, i.e. they are syntactically “the same”, rendering the Add-Agr feature on Fin+T predictable. The only difference is that in case of the Wh in Kilega the feature on lower head is suppressed while in the case Add-Agr in Magahi the feature on higher head is suppressed.

## Sources of Second Person: Connecting Imperatives and Indexical Shift

Mark C. Baker

Rutgers University (Joint work with Deepak Alok)

It is by now very clear that there is more to being grammatically second person than simply referring to the addressee of a sentence, both syntactically and semantically. One can have expressions that refer to the addressee but are not second person (e.g. *the person who I am talking to now*), and one can have second person pronouns that do not refer to the person currently being spoken to (e.g. in contexts of indexical shift—see (2a)).

There is reason to think that designated functional heads play a crucial role in whether a DP is second person or not. For example, a DP like *everyone* is normally 3<sup>rd</sup> person ((1b)), but it can become second person when it is in an Agree relationship to a Juss(ive) head, present only in imperative clauses, as shown by examples like (1b), after Zanuttini (2008).

- (1) a. Everyone raised their/\*your hand when the light flashed.  
b. Everyone raise your hand when the light flashes!

Furthermore, whether a pronoun in an embedded clause that is coreferential with a DP in the matrix clause can be second person or not (a type of indexical shift) is often dependent on whether a particular complementizer is present. This can be seen, for example, in the minimal pair in (2) from the Indo-Aryan language Magahi, where *ki* but not *taaki* licenses shifted ‘you’.

- (2) a. Baabaa Banteeaa-se batiailthi **ki** tu dukhii na ho.  
Grandfather Bantee-INS talked-3HS that you sad NEG be  
‘Grandfather talked to Bantee so that you (=Bantee or =addressee) would not be sad.’  
b. Baabaa Banteeaa-se batiailthi taaki tu dukhii na ho.  
Grandfather Bantee-INS talked-3HS that you sad NEG be  
‘Grandfather talked to Bantee so that you (=addressee, \*=Bantee) would not be sad.’

Here we explore the possibilities of having a unified theory of the two phenomena, united by a principle that states: “A DP is second person if and only if (i) it agrees with a designated functional head from the set {Juss, C<sub>SA</sub>, ...} or (ii) it is locally bound by a DP that is second person.” Like Pancheva and Zubizarreta’s (2018) theory of Person Case Constraints crosslinguistically, this assumes that functional heads can bear interpretable person features which they impose on nearby DPs, raising the possibility of a still larger unification.

A positive effect of our unification is that it predicts that imperative heads can be a vehicle of indexical shift even in languages that do not have the sort of C head that licenses this shift. This seems to be true in Japanese, where indexical shift in (3) is possible even for speakers that don’t allow indexical shift in embedded declarative clauses. This also raises the possibility that there are person sensitive phenomena that are not perspectival in nature—since we are not sure that Juss creates a new perspective in examples like (1) the way that finite Cs do.

- (3) ?Sensei-wa Taroo-ni anata-no heya-o itu katazuke-nasai-to it-ta-no?  
teacher-TOP Taroo-DAT you-GEN room-ACC when clean-POL.IMP-that say-PAST-Q  
‘When did the teacher tell Taroo [to clean your (=Taro’s) room t]?’

# Japanese sentence-final particles and their effect on null subject person

Kazuya Bamba (University of Toronto)

An increasing number of syntacticians argue that there is a place in syntactic representation for encoding contextual information, such as the identity of discourse participants (e.g., allocutive agreement) and Call on Addressee. In Japanese, some such information is overtly conveyed through discourse morphology known as sentence-final particles. In this study, I examine an under-discussed pattern in which these particles restrict the interpretation of the person of a null subject pronoun.

In a discourse null subject language like Japanese, the reference of a subject pronoun is considered as contextually dependent such that the pronoun can be interpreted as any person depending on the context of utterance (1).

(1) shiken-ni ochita.  
exam-DAT failed

(2) *kitto* shiken-ni ochita.  
surely exam-DAT failed

‘I/You/He failed the exam.’ (Neeleman & Szendői 2005) ‘?I/?You/He failed the exam for sure.’

The matter of how to determine the reference of a null subject pronoun in these languages remains controversial. In this talk I argue that insights from the literature on syntax and evidentiality (*inter alia*, Speas & Tenny 2003, Miyagawa 2012, Wiltschko & Heim 2016, Pancheva & Zubizarreta 2018) give us a novel perspective on this problem. Consider data like (2) which demonstrate that the determination of null subject reference interacts with evidentiality (which is here introduced by the adverb *kitto*).

Similarly, the flexibility observed in (1) does not seem to exist in the presence of sentence-final particles (henceforth, ‘SFPs’). When these particles are present in a non-past tense utterance, the interpretation of the subject pronoun is restricted, even though the utterance contains no overt evidential morphology like adverbs (cf., (2)). This effect is shown in (3) where the 2<sup>nd</sup> person reading is unavailable in the presence of a SFP like *yo* and *ne*. Here the possibility of a 3<sup>rd</sup> person interpretation of the subject pronoun depends on the choice of the SFP.

(3) a. soto-de matte-iru. c. soto-de matte-iru *ne*.  
outside-DAT wait-PROG.PRES outside-DAT wait-PROG.PRES SFP  
‘[I/You/He] will be waiting outside.’ ‘[I/#You/??He] will be waiting outside.’  
b. soto-de matte-iru.  
outside-DAT wait-PROG.PRES  
‘[I/You/He] will be waiting outside.’

The above person restriction is unexpected considering that Japanese SFPs are purely pragmatic in their function and never influence the truth of the utterance they are associated with (McCready 2005). A question thus arises as to how such restrictions on the pronoun emerge. While the pattern in (3) is understudied, Tenny (2006) looks into a related pattern in her observation of predicates of direct experience (e.g., *lonely*, *cold*). She observes that with such predicates the available subject person is restricted by clausal types; the pronoun must be 1<sup>st</sup> person in declaratives (4a) and 2<sup>nd</sup> in interrogatives (4b).

(4) a. [ watashi-wa / #anata-wa / #kare-wa ] samui desu.  
I-TOP you-TOP he-TOP cold COP  
‘I am / #You are / #He is cold.’

b. [ #watashi-wa / anata-wa / #kare-wa ] samui desu *ka*.  
I-TOP you-TOP he-TOP cold COP Q  
‘#Am I / Are you / #Is he cold?’

(Tenny 2006:247)

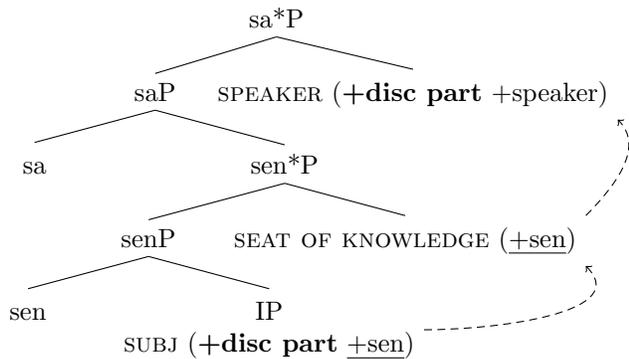
Tenny (2006) also reports that the above constraint may be lifted when the clause contains evidential morphology such as *ni-chigainai* ‘must be,’ allowing for the 3<sup>rd</sup> person subject in a declarative clause (5). Strikingly, this lifting works in a parallel manner with the SFP-based person constraint (3); when an adverb like *kitto* ‘surely’ is present, the set of available person interpretations for the null subject changes (6).

(5) Mary-wa sabishii *ni-chigainai*.  
 Mary-TOP lonely must.be  
 ‘Mary must be lonely.’

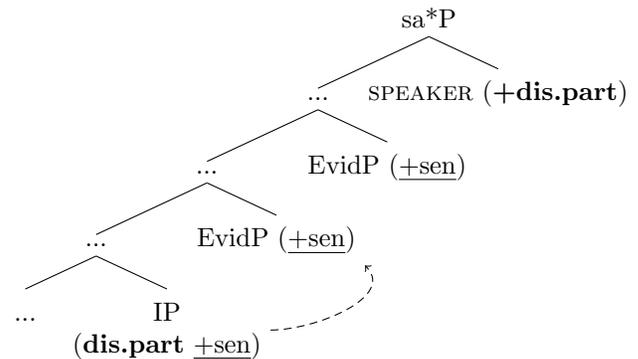
(6) *kitto* sugu kaisha yameru *ne*  
 surely soon company quit SFP  
 ‘[#I/#You/He] will quit the job for sure.’

Tenny (2006) accounts for the restriction (3) through a featural association between a subject NP and a sentience argument introduced in a speech act phrase (saP) in the periphery (7). She proposes that predicates of direct experience assign a set of features, [ $\pm$  discourse participant] and [ $\pm$  sentient], to their external argument. As the external argument undergoes feature-driven movement up to a position in saP, it becomes associated with the sentience role “speaker” (+speaker) in declaratives and “hearer” (-speaker) in interrogatives, which gives rise to the clause type-based person restrictions (see the simplified tree (4)). When this association is disrupted by an intervening Evidentiality phrase (EvidP), where evidential morphology is introduced, the same restrictions no longer emerge (cf., (8)).

(7)



(8)



Building on Tenny’s (2006) insights about the left periphery, I propose that restrictions (3) and (4) arise from the way the sentience role in saP (e.g., “speaker”) binds and specifies a point-of-view role (hence, POV) in another projection in the clausal spine, which I propose is a sen(tience)P. However, I depart from Tenny’s proposal in that I abandon her notion of predicate-based featural specification of the subject as the SFP-based patterns are not restricted by predicate type like Tenny’s. When the “speaker” role in saP binds the POV role found in senP in declaratives, the evaluator of the truth condition of an utterance (i.e., perspective) aligns with the speaker, inducing a 1<sup>st</sup> person interpretation. In contrast, the presence of evidential morphology introduces an EvidP that intervenes between the two projections, allowing for a possible 3<sup>rd</sup> person subject as now the sentience role may bind the role in EvidP instead of senP. I further argue that the difference between the two SFPs, *yo* and *ne*, derives from the fact that these particles are the realization of different syntactic heads: *yo* realises the sa head while *ne* realises a combination of the sa and sen heads.

In conclusion, the interaction between null subjects and discourse morphology reported here in Japanese offers a novel perspective on the way a subject referent is retrieved. The current proposal is a first step towards answering this long-lasting theoretical question from this novel perspective.

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## Privative [participant] and partial agreement displacement

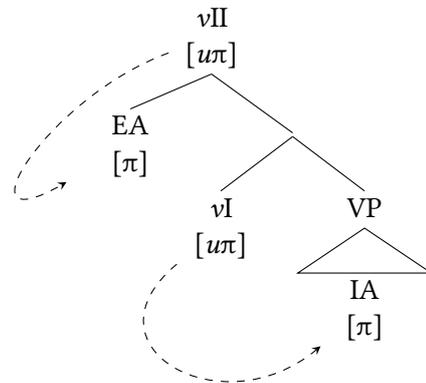
Bernat Bardagil-Mas (UC Berkeley)

his talk addresses a superficially simple agreement displacement pattern that, upon closer scrutiny, becomes problematic for a formal derivation of the phenomenon. I argue that such a pattern is problematic due to the widely adopted locuphoric participant [prt] feature for 1st and 2nd persons. The analysis of an instance of partial agreement displacement in Mëbêngôkre supports the adoption of binary person features.

**Mëbêngôkre partial agreement displacement** Mëbêngôkre (Northern Jê, Brazil) has a small system of cross-reference morphology on the predicate head (Reis Silva 2001). Accusative and absolutive pronouns cliticize on the verb and show alternance with lexical noun phrases (pro-drop, displacement) in the canonical object position. Accusative clitics present a 2>3 person hierarchy: the object clitic is second person in the presence of a second person subject when the object is third person (1). However, this does not extend to a 1>2/3 effect (2).

- |   |   |
|---|---|
| <p>(1) a. <math>2 \rightarrow 3 = 2</math><br/>         Ga      a=      bĩ.<br/>         2SG.NOM 2SG.ACC kill.SH<br/>         ‘You killed it.’</p> <p>b. * <math>2 \rightarrow 3 = 3</math><br/>         *Ga      ku=      bĩ.<br/>         2SG.NOM 3SG.ACC kill.SH<br/>         ‘You killed it.’</p> | <p>(2) a. <math>1 \rightarrow 2 = 2</math><br/>         Ba      a=      pumũ.<br/>         1SG.NOM 2SG.ACC see.SH<br/>         ‘I see you.’</p> <p>b. <math>1 \rightarrow 3 = 3</math><br/>         Ba      ku=      bĩ.<br/>         1SG.NOM 3SG.ACC kill.SH<br/>         ‘I killed it.’</p> |
|---|---|

**Cyclic Agree** Béjar & Rezac (2009) provide a probe-goal Agree mechanism designed to capture person hierarchy effects. The language-specific settings determine if the person feature hierarchy is 1>2>3 or 2>1>3. After probing once into (3) the VP and the internal argument (IA), unchecked features on the probe  $vI$  can project to the  $vII$  level and probe a second time in a domain that includes the external argument (EA). If successful, Agree will reflect morphological agreement with the EA. In Cyclic Agree terms, Mëbêngôkre is a low probe language: the IA is the canonical controller of agreement with the accusative proclitic. The ellided object DP is cross-referenced with a proclitic matching its features, with the single exception of the inverse 2>3 context.



In the entailment hierarchy of privative person features that they adopt from Harley & Ritter (2002), Béjar & Rezac (2009) clearly distinguish locuphoric participants from 3rd person, which is the most underspecified person. Among participants, either speaker ([πprt[spk]]) or addressee ([πprt[adr]]) are more specified, in what is language-specific variation between me-languages and you-languages. A bare [π] is interpreted as third person. Agreement displacement takes place whenever the person feature on the EA is more informative than the feature on the IA in the entailment hierarchy, and there is a vocabulary item that can be inserted to reflect the features valued on the probe.



# THE ACQUISITION OF ANTICAUSATIVE STRUCTURES BY L1 SPANISH SPEAKERS LEARNING L2 ENGLISH

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**Lexico-syntactic properties.** English and Spanish anticausative structures share lexico-syntactic properties. Most verbs of change of state in these languages enter into the causative alternation, the so-called “transitive alternating verbs” (1-2). Verbs of external causation (*break/romper*) can appear in intransitive configuration (1b, 2b). This possibility has been related to the fact that the causer of the events encoded by these verbs is not necessarily an animate agent (3), and, therefore, it can be left unspecified. However, not all transitive verbs can have intransitive/anticausative counterparts. Verbs like *cut/cortar* can be transitive, but not intransitive (4-5). The causer of the event denoted by these verbs is necessarily an animate agent that cannot be left unspecified, which renders the intransitive form unacceptable. These are known as “transitive non-alternating verbs”.

**Morpho-syntactic properties.** English and Spanish anticausative forms are different in their morphological marking. In Spanish, the reflexive pronoun *se* is used (2b), but, in English, there is no morphological marking (1b). Alexiadou et al. (2006, 2015) propose that the difference in morphological marking reflects a difference in syntactic structure, but not in meaning in anticausative structures in these languages. The lack of morphological marking reflects the absence of VoiceP in these structures in English, whereas *se* signals the presence of an expletive VoiceP in Spanish inchoatives, i.e. presence of morphology with no semantic contribution.

**Previous L2 studies.** Montrul (1997) tested L1 Spanish speakers learning L2 English at the intermediate level. They marginally incorrectly rejected anticausative sentences with alternating verbs (1b), and correctly rejected them with non-alternating ones (4b). This was considered transfer of L1 morphological properties, i.e. modular transfer, and not of full transfer, since anticausative sentences in English and Spanish are different in their morphology, but not in their lexico-syntactic structure. However, the syntactic analysis underlying the predictions and the analysis in the study assumed that English and Spanish anticausatives had the same syntactic structure.

**Predictions.** We hypothesize that the properties of the L1 determine which verb classes will be allowed in the intransitive/anticausative configuration in the interlanguage. We predict that:

(a) If only lexico-syntactic properties are transferred, L1 Spanish learners of L2 English will accept transitive alternating verbs in the intransitive form, and reject non-alternating ones.

(b) If only morpho-syntactic properties are transferred, L1 Spanish learners of L2 English will reject all intransitive sentences due to the absence of expletive VoiceP (i.e. lack of *se*), and will correct these sentences to express expletive VoiceP.

If there is full transfer:

(c) Transitive alternating and non-alternating verbs will be rejected, but for different reasons: the former due to the absence of VoiceP (equivalent to *se*), and the later due to lexico-syntactic properties.

**Experiment.** 76 L1 Spanish/L2 English college level L2-learners were tested in Lima, Perú. A picture-based acceptability judgment test was used to elicit learners’ responses. Learners were instructed to provide a corrected version of sentences that they rated negatively. Prediction (a) held for all proficiency levels since learners’ means for alternating verbs were significantly higher than those for non-alternating ones for all levels of proficiency. Prediction (b) did not hold for any specific level of proficiency according to the group analysis. The sentence correction analysis revealed that morpho-syntactic and lexico-syntactic transfer interacted at higher proficiency as learners who incorrectly rejected English anticausatives with alternating

unaccusatives tended to correct them using the Spanish passive for (*ser* + past participle). Full transfer seems to be conditioned by development of L2 competency. Given the L1 transfer effects found, the L1 Spanish / L2 English data provides evidence in favor of the view that English and Spanish anticausatives with alternating unaccusatives are different in syntactic structure and not only on morphological marking.

### Examples.

- (1) a. The thief broke the window.  
b. The window broke.
- (2) a. El ladrón rompió la ventana.  
b. La ventana se rompió.
- (3) a. The wind broke the window.  
b. El viento rompió la ventana.
- (4) a. Patricia cut the meat.  
b. \*The meat cut.
- (5) a. Patricia cortó la carne.  
b. \*La carne se cortó.

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## Non-embedded infinitives in a heritage speaker of Spanish

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Infinitivals cannot be the main verb in root clauses in Spanish except in very limited circumstances, typically in non-assertive contexts such as (1) (cf. Hernanz 1999, Grohmann & Etxepare 2003, 2005). Hernanz' observation is formalized in (2)(1). Otherwise, root infinitives like (3) are unattested in adult speech.

- (1) ¿Salir yo con este frío? De ninguna manera  
Go-out I with this cold? Of no way "Me going out in this cold? No way!"
- (2) **Root-Tense generalization:** A root clause must have a T with specified tense.
- (3) \*Entonces yo sali-r de mi casa.  
then I leave-INF of my house

In this paper I analyze instances of non-embedded infinitives like (3) found in the production of Osmin, a heritage speaker of Spanish from Guatemala who moved to the United States at age 9, and returned to live in Guatemala when he was 25 in 2015. His story is narrated as the episode "Dime quién soy", (Radio Ambulante, NPR). Osmin produces a total of 246 verbs, 56 of them infinitives, and 49 of those (87%), non-embedded. These examples appear in the following contexts: a) they are main-clause, root infinitives such as (4)a,b; b) they appear in relative clauses ((4)c-d), and c) they appear in adjunct clauses ((4)e). None of them are possible in monolingual Spanish.

- (4) a. Y eso día fui normal: **levanta-r**, estuve feliz, estuve jugando.  
and that day was normal: get.up-INF was happy, was playing  
"And that day was normal: to get up, I was happy, I was playing."
- b. Entonces, ellos **pega-r-me** con cinchos, paletas.  
then, they hit-INF-CL with belts, sticks  
"So they hit me with belts, sticks."
- c. Eso día que yo **sali-r** aquí, yo carga toda mi vida.  
that day that I leave-INF here, I carry all my life  
"That day that I left here, I carried all my life."
- d. Entonces, ese nombre que yo **acostumbra-r**  
then that name that I get.used.to-INF  
"So that was the name I got used to."
- e. Y como él **promete-r** que yo voy a regresar más tarde...  
and since he promise-INF that I go to return-INF later...  
"And since he to promise that I was going to return later..."

These infinitives can be interpreted as involving different tenses. Furthermore, they can be conjoined with inflected verbs, as in (5), where the infinitive *cuidar* 'take care of' is conjoined with a tensed verb *estuvo* 'was'. Assuming conjuncts are parallel, this

suggests that the infinitive has features similar to the inflected verb. Finally, these infinitives have overt subjects.

- (5) Si él no estuvo en la casa y yo no **cuida-r** a él, **sabe-r**  
If he not was in the house and I not take.care-INF to him, know-INF  
qué, dónde yo voy a esta-r el día de hoy.  
what where I AUX tobe-INF the day of today  
“If he hadn’t been in the house, and I hadn’t taken care of him, I wonder what, where  
I would be today.”

Osmin’s production is very similar to that of monolingual speakers in three relevant respects. First, he has no preverbal bare NP subjects (as many HSp and L2 speakers do), second, unaccusative verbs appear in VS order with existential subjects, and third, the distribution of aspect in past tense converges with mon-Sp. His phonetic output sounds impressionistically like that of a monolingual speaker as well.

I propose that the syntactic representation for these infinitives is specified for tense, but that they are spelled out as infinitives because that form is the default. In other words, it is the morphological spell-out where the Osmin’s grammar diverges from monolingual speakers’ (cf. Lardiere 1998 a. o.). In support of this hypothesis, I note that Osmin’s speech also has a few instances where the verb shows a non-target morphological form, given the features of the subject. For example, *puede* can.3p with a 1<sup>st</sup> person subject, which should trigger *puedo*. Likewise, overregularized irregular verbal forms suggest that the mapping between abstract features and morphological exponents may explain the presence of root infinitives.

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This paper puts forth a formal semantic and syntactic analysis of the descriptively/ functionally largely studied American Spanish operator *dizque* (Lit. 'they say that'). This element has been analyzed (Travis' (2006) and Mora & Maldonado's (2015) [M&M] works, a.o.) as an 'evidentiality strategy', a pragmatic marker with a dominant epistemic reading, which 'extends' to various 'overtones' like bragging, pretending or deceiving:

(1) *Agregué un comentario plagado de malevolencia, **dizque** aprende álgebra y literatura al mismo tiempo.*

∴ *it is said that **apparently** he learns algebra and literature at the same time...*

We will argue against such proposal and formally determine the nature and features of *dizque*.

**1. PROPOSAL:** As to its **semantics**, we provide an exploration of *dizque* through the standard tests (Faller 2006, Matthewson et al 2007, a.o) that distinguish 'epistemic modal evidentials' (EM) from 'illocutionary indirect evidential operators' (IO). This exploration shows that *dizque* is a true EM. We will present new data to sustain this idea and we will carefully analyze contexts. Regarding **syntax**, we will provide evidence that 'sentential *dizque*' (different from 'constituent modifier' *dizque* that we will not study) is a functional head generated at the leftmost periphery of both root and embedded clauses (Rizzi 2010), scoping over modal adverbs and negation. Building on Speas & Tenny 2003/ 2004 [S&T], we will adopt an approach to Sentience in grammar with a division of labor between the Speaker and the Reporter as holders of the "point of view" from which the event is reported (S&T 2003, Zubizarreta & Pancheva (2017)).

## **2. ASSUMPTIONS AND ANALYSIS.**

**2.1. THE SEMANTICS OF DIZQUE.** In the line of Izvorski (1997) a.o, we claim that, *dizque* is an EM and, as such, has the following interpretation:

(2) EV p [EV= evidential operator]

assertion:  $\Box p$ , in view of the speaker's knowledge state

presupposition: the speaker has indirect evidence for p (Izvorski 1997:226)

In support of this claim, we take the **tests** regarding **truth value, scope and embeddability**, generally used to assess the status of evidentials. We thus examine **challengeability (or assent/dissent)** which establishes that it is possible to disagree with a modal (it contributes possibility) but not with a presupposed report. *Dizque* behaves as an EM in this respect, since it can be challenged/ disagreed with:

(3) ...que están diciendo que tú estás publicando en los periódicos, que tu tesis fue *Summa Cum Laude*, y resulta que *dizque* tu tesis no fue Summa Cum Laude....- *¿Pero esto cómo va a ser? Imposible, dijo...*

...that they are saying that you are publishing in newspapers that your thesis was *Summa Cum Laude* and it is the case that *dizque* your thesis was not *Summa Cum Laude*... - But, how may that be possible? No way, she said...

The second tests involves **negation**: we show that evidence requirements cannot be blocked by negation. Sentences with #*No dizque* are not found in the consulted corpora. However, **interrogative** sentences like (4), in which the speaker expects the answer to be positive and double checks whether p holds, are very frequent:

(4) *¿Y no dizque ibas a ir a la Embajada?*

And was it not the case/did you not say that you were going to the Embassy?

We will contend that these sentences are 'biased interrogatives' (Romero and Han 2004).

Interrogative negative sentences with EM *dizque* instantiate a case of 'mirative' conversational implicature as a result of its interaction with negation. The third test shows that, *dizque*, as EMs, and contrary to IOs, can be **embedded**: it can appear in subordinate clauses, preceded by the complementizer. In this context it is not a 'complex evidential' (as claimed by M&M) but either *que* embeds a regular subordinated report (5) or it is 'echoic' (Demonte and Fernández-Soriano 2013), (6). In (5) "the subject of the evidence acquisition event is referentially controlled by the Att-H" (Z&P, p. 32), which is identified with the speaker in the case of matrix *dizque* and with the matrix subject in the case of embedded *dizque*.

(5) *Pos ¿dónde andaba usted, patroncito? -dijo Cándido Cuéllar, ...-. Subí a buscarlo a su despacho y me dijeron que dizque se había ido a cenar a La Concordia*

Well, where were you, patroncito? –said Cándido Cuéllar, ...- I went up to look for him in his office and they told me that *dizque* he was gone to La Concordia for dinner

(6) *nadie me quería decir una palabra, que dizque nadie sabía nada.*

Nobody wanted to say a word, that *dizque* nobody knew nothing

The most relevant test for our purposes has to do with **Falsity**: 'FELICITY if p is known to be false' is ok for IO, unexpected for EM. We attest two possible situations: a) p is possible for the speaker (7), but also b) the prejacent is false or has low possibilities of being true (8):

(7) *...pueblito donde se emborrachaban los Scotts y las Ednas, los social drop-outs, los artistas y nuevos ricos que dizque no querían tener nada que ver con el sistema. (#pero querían tener que ver).*

... small village where all got drunk, Scotts and Ednas, social drop-outs artists and parvenus that *dizque* did not want to have any relation with the system (#but they did want to have a relation)

(8) *Carlos contaba con otro agente que le ayudaba en su cometido, que dizque se estaba confesando, pero la realidad era que los dos esperaban a Mario.*

Carlos had another agent to help him in his task, who *dizque* was confessing, but the truth was that they were both waiting for Mario.

This apparent counterexample for the EM analysis can be explained if we consider that EM evidentials can be read as *de dicto* reports (Smirnova 2013), i.e., a sentence with *dizque* may involve two epistemic agents: the Speaker and the Reporter and the proposition may be evaluated “with respect to the epistemic modal base relativized to the reporter, whose statement the speaker repeats” (*ibid.* p. 512). Prejacent in (8) would be false for the speaker but possible for the reporter.

**2.2. THE SYNTAX OF DIZQUE.** Morpho-syntactically Spanish *dizque* can be characterized as a (stressed) word (not a clitic or a morpheme, as is usual for EV) which can occupy many positions in the sentence. It usually appears before the informative focus, it scopes over modal adverbs (9), and it is preceded by focus adverbs (10):

(9) *... versiones que indican que: Odebrecht, dizque aparentemente ha sorprendido al Estado...*

... versions that indicate that Odebrechte, *dizque* apparently has surprised the State

(10) *... por...un capricho, un placer, ... un descuido e incluso dizque por una equivocación.*

...for...a whim, a pleasure,... a slip and even *dizque* for a mistake

Our hypothesis is that *dizque* is a functional category in the (leftmost) left periphery of the sentence. Evidence indicates that *dizque* is a functional head and not a specifier, in contrast with parenthetical and sentential adverbs. Along with S&T (2003/ 2004), a tentative representation for the Sentience projection where *dizque* merges would be (11):

(11) [<sub>SentienceP</sub> ... [<sub>EvidP</sub> matrix subject [[<sub>EvidP</sub> *dizque* [<sub>IP</sub>... ]]]]

As can be seen, *dizque* is a sentential operator generated in the Sentience area above IP where an EvidP projects. *Dizque* is bound to the SoK (=speaker/ reporter), and the matrix subject is in the SpecEvidP.

**3. CONCLUSION.** Our analysis presents four semantic tests that show that American Spanish *dizque* is an (indirect) true EM, as opposed to other analyses which treat *dizque* as an adverbial pragmatic marker. The distinction between epistemic agents is elaborated. Also we insert *dizque* as a functional node in the instantiation of a layered left periphery.

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# Anchors, Indices, and the EPP

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**Main Claims.** In this abstract, I propose that there is a natural class of anchoring elements that include person, locations, times, and worlds. These anchoring elements bear an index and function as a class by realizing verbal inflection, checking the EPP, and being tracked by loci in sign languages. The operations of the inflectional domain share anchoring as their function.

**The EPP.** I define the Extended Projection Principle (Chomsky 1981, 1982) as the obligatory move of some element to the inflectional domain, taking different forms cross-linguistically (Biberauer 2010, *a.o.*). I formalize the EPP as an unvalued [ $u$ Anchor: \_] feature on Infl<sup>o</sup> that must be lo-cally valued by an index. In many languages, a person index is used, but other elements that are tracked through indices are also used (e.g., times, locations, possible worlds; Schlenker 2015). My proposal builds on Ritter and Wiltschko (2014)'s analysis of the cross-linguistic equivalents to tense-marking, whereby verbal inflection is the manifestation of an anchoring requirement formalized by a [ $\pm$ coin(cidence)] feature indicating whether the event and the utterance coincide. Unlike the [ $\pm$ coin] feature, the EPP picks out an element in the real or irrealis world that is being tracked. The index formalizes identity between an argument and some element in the evaluation situation. That is, it locates an argument in time, in space, or in worlds in the evaluation situation.

**The Natural Class of Anchors.** Person, locations, tenses, and worlds form a natural class of elements that appear in a variety of phenomena, across typologically diverse languages. This class patterns together both in the possible forms of verbal inflection and the possible kinds of EPP checkers. First, Ritter and Wiltschko (2014) show that, alongside languages in which verbs inflect for tense, there are languages where verbs inflect for location (Halkomelem), and person (Blackfoot). Additionally, in some languages, such as English, modal marking is in complementary distribution with tense marking, and so possible worlds are also arguably an attested form of this category of verbal inflection. Likewise, the cross-linguistic forms of the EPP also vary across this same class of elements. The EPP is instantiated by person in English, in which a nominal specified for person takes the subject position, and even non-nominal subjects have person and other properties of nouns (Davies and Dubinsky 2001). The EPP can be instantiated by location in constructions such as *Into the room walks Robin*, where the location phrase 'into the room' moves to spec,TP *en route* to a topicalized position (Bruno 2016). Finally, it can be instantiated by time in Finnish, where a temporal adverb (e.g., *nyt* 'now' in (1-a)) can take the place of the subject, but crucially not other types of adverbs (e.g., *nopeasti* 'quickly' in (1-b)) (Holmberg 2005).

- (1) a. *Nyt meni hullusti.*  
Now went crazily  
'Now things went wrong.'
- b. \**Nopeasti meni hullusti.*  
quickly went crazily  
'Things quickly went wrong.'
- [Finnish]

A third way in which this group of elements acts as a class is by being able to bear overt indices in sign languages (Schlenker 2015). Many sign languages, including American Sign Language (ASL), assign various referents to loci in the signing space. Signing at or toward these loci can be used as verbal agreement or as pronouns (Lillo-Martin 1986). Schlenker (2011) suggests that words such as *former* and *latter* in spoken languages have a similar function, marked in time rather than space, although they are used much less extensively. Loci can track the reference of people,

times, locations, and possible worlds (Schlenker 2015), and thus also belong to the natural class of anchors. Since the number of loci that can be used in an utterance is limited only by perceptual and memory constraints, it has been proposed that these are overt referential indices, rather than personal pronouns (Lillo-Martin 1986).

**The Anchoring Domain.** In previous work, I have hypothesized that all of the operations of the inflectional domain share the purpose of anchoring, providing formal links between the event and the utterance, and that, conversely, all anchoring operations belong to the inflectional domain. This, then, entails that operations such as mood, case assignment, and viewpoint aspect also have an anchoring function. Preliminary research suggests that this may indeed be the case. For example, Bliss, Ritter, and Wiltschko (2010) have argued that Blackfoot has a person-based aspectual system.

**Multiple Anchors.** This approach predicts multiple anchors in a clause, in contrast to Ritter and Wiltschko (2014). I propose that multiple anchors are required in every clause in order to properly orient the interlocutors by locating the event situation within the world (cf. triangulation in orienteering). Each of the anchors have different characteristics. While verbal inflection features track whether the event situation and utterance coincide, the EPP tracks a particular ‘landmark’ that is relevant in the event situation. Thus, although the various anchors are unified in their function as anchors, they operate separately and independently. It is my position that anchoring is formalized within the narrow syntax, although it has functional correlates. As such, I do not predict a one-to-one correspondence between functions and grammatical operations.

**EPP Anchors as Indices.** I propose that the EPP is checked by an index because indices are able to capture the deictic or referential nature of the class of anchors, while also including formally non-referential elements such as QPs. That QPs are able to bear an index is shown through their ability to enter into binding relations, as in *Every farmer who owns [a donkey]<sub>i</sub> feeds it<sub>i</sub>*. Any element from the class of anchors is able to bear an index and thus check the EPP, although the person index seems to be preferred cross-linguistically, perhaps because pronoun reference is already computed through indices and it is a simple matter to extend the use of these indices to EPP-checking.

**Phi vs. Anchor?** Although I argue that Person belongs to the class of anchors, it has also traditionally been included in the class of Phi features. It is clear that gender and number have different properties than person (e.g., Baker 2011). Wechsler (2011) argues that the Number and Gender features form a subset of the Phi feature bundle, but also that each of the Phi features in the bundle can be considered ‘Index’ features. This predicts that gender and number can function as anchors without person, which does not appear to generally be the case, cross-linguistically. However, the alternative appears to be a feature structure whereby Person belongs to two different feature bundles, Phi and Index, simultaneously. This could perhaps explain why movement seems to be necessary in EPP anchoring operations (i.e., Person moves from a head with a Phi feature bundle and incorporates into one with an Index bundle). More research is needed in this area.

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## COMPLEX LOCATIVE PREPOSITIONS. GENITIVE / DATIVE ALTERNATION IN SPANISH

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In this paper, we analyze the genitive~dative alternation found with certain locative prepositional constructions in Spanish, exemplified in (1a) vs (1b):

- (1) a. Se sentó encima de Juan                      b. Se le sentó encima (a Juan)

SE sat<sub>3p</sub> on top of Juan

SE CL<sub>DT</sub> sat<sub>3p</sub> on top (to Juan)

Prepositional constructions that allow this alternation have the following properties:

- a) They are complex and usually have the structure of P+X — (det)+N / P—for instance *en+cima* ‘on top’, *en+frente* ‘in front’, *de+trás* ‘of back (behind)’. There are also non-transparent cases as *alrededor* ‘around’ and *lejos* ‘far’, *cerca* ‘near’.
- b) The complements of these prepositional constructions are always headed by the genitive preposition *de*.
- c) They all involve locatives. Temporal meanings like *después de* ‘after’, *antes de* ‘before’ are not accepted in the dative version. *A favor* ‘in favor’, *en contra* ‘against’ are the only non-locative exceptions.
- d) The alternation does not obtain with directional verbs (\**Se le dirige al lado*, lit. him/her directs to the side)

A similar alternation is obtained in Italian (with complex elements involving the preposition *a* (Rizzi 1998)) and Catalan, both of which have clitics for genitive PP’s. Traditional grammars (e.g., RAE/ASALE) have considered these complex phrases either as adverbs, since they allow a non-explicit object (*Está detrás* ‘S/he is behind’) or as nouns because they take possessive pronouns in spoken varieties (*Detrás mío* ‘in my behind’); allow diminutive suffixes like *-ito* (*delant-ito*, *al lad-ito*), and may even have plural markers (*los adentros*, lit. ‘the insides’, *los alrededores*, lit. ‘the arounds’). Following Larson & Samian’s (2018) [L&S] classification of prepositional elements in Farsi, we take the constructions under study to be equivalent to *De-prepositional* Ns and *Nominalized P*’s. The main reason for this is that they can be preceded and followed by a (genitive) preposition, as nouns are:

- (2) El árbol **de** delante **de** la casa  
the tree of in front of the house

Our main purpose here is to determine why dative clitics are allowed with these locative prepositions. We claim that the basic structure is the one in which the DP starts as a complement of the de-prepositional N in (1a). In this configuration, the complement of the de-prepositional N can show up as a genitive PP as in (3). However, in an alternative to this configuration, the complement can move to the edge of the de-prepositional phrase as in (4), from where it will be visible to the verb and be assigned dative as in (5). We show that this dative “extraction” is licensed by the V, which is able to “see” inside the complex P-N phrase (and accounts for dative case assignment). In current terms we could say that the DP moves to the edge of the P/N phase in order to be visible to V.

- (3) Se sentó [NP [de P/N detrás] [PP de [ N ] ]]  
REF sat<sub>3PSG</sub> behind of N
- (4) Se sento [NP [N]<sub>i</sub> [de P/N detrás] t<sub>i</sub>]  
REF sat<sub>3PSG</sub> behind
- (5) Se le<sub>i</sub> sentó [NP t<sub>i</sub> [de P/N detrás] t<sub>i</sub>]

REF Cl<sub>dat</sub> sat<sub>3PSG</sub> behind

We compare our data with those studied by Acedo-Matellán (2017) for Latin, where, under certain circumstances a (locative non-directional) preposition incorporates into the verb and it licenses a DP which surfaces with dative case.

(7) Tibi ad-duxi hominem. (From Acedo-Matellán 2017)

you.dat at-lead.prf.1sg person.acc ‘I have brought the man to your presence.’

It is this process of incorporation that licenses movement of the complement of the (complex) preposition. A prediction of this claim is that no complement, including the dative DP, can appear between the preposition and the verb. This prediction is borne out:

(8) a. \*Se le sentó a Juan detrás b. Se le sentó detrás a Juan  
SE Cl<sub>dat</sub> sat<sub>3PSG</sub> to Juan behind SE Cl<sub>dat</sub> sat behind of Juan

There are other facts which support this raising analysis for datives. First, the extraction of the dative with these constructions shows *me lui* restrictions (9). More important is the fact that the dative version yields an affected interpretation, as can be seen in (10b):

(9) \*Me le pusieron delante

Cl<sub>ACCIP</sub> Cl<sub>Dat3P</sub> put in front ‘They put me in front of him/her’

(10) a. Escupe delante de Juan b. Le escupe delante (a Juan)

‘S/he spits in Juan’s presence’ ‘S/He spits on Juan’

In fact, the dative construction also gives rise to inalienable possession interpretation, as can be seen in the contrast in (11). Importantly, the *distributivity effect* described by Vergnaud and Zubizarreta (1992) is obtained, as can be seen in (12b):

(11) a. Pintó algo detrás de Juan b. Le pintó algo detrás (a Juan)

S/he painted something behind Juan S/he painted something on Juan’s back

(12) a. Pusieron algo al lado de los niños b. Les pusieron algo al lado (a los niños)

They put something next to the kids They put something next to each kid

We will see that, as expected, idioms are only obtained from the dative version: *Ponerle la mano encima (a alguien)* ‘To beat someone vs. *Poner la mano encima de alguien* ‘put a hand on someone’ (only literal interpretation), *Echarle la vista encima (a alguien)* ‘To catch someone’ vs. #*Echar la vista encima de alguien* lit. ‘to throw the sight on someone’. This idiom possibility indicates that the PP is part of the main vP.

Doubling data will also be presented: different varieties of Spanish have different doubling possibilities for these structures, which suggests that different domains for doubling are computed depending on the dialect.

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# Post-syntactic person restrictions: Agreement and V1 across Tsimshianic

Clarissa Forbes (University of Arizona)

The Tsimshianic languages of northern British Columbia share a number of syntactic properties, including verb-initial order and a complex ergative agreement pattern. In this paper, I illustrate two empirical areas where languages within this small family exhibit a sensitivity to the person features of clausal arguments: in VSO/VOS word order alternations, and in agreement. I demonstrate that across the family these alternations occur independently, and argue that this motivates an account in which they are derived in different ways. I present a unified analysis of the Tsimshianic languages working from the same basic clause structure, where special word order and agreement patterns arise due to a difference in whether the person licensing requirement is syntactic or morphological.

DATA: Both the Interior and Coastal branches of the Tsimshianic family exhibit a base VSO word order, e.g. (1). However, independent-order clauses where a third person subject acts on a first or second person direct object – an ‘inverse’ configuration – instead show VOS word order, e.g. (2). The following examples are from Nisga’a (Interior) (Jelinek 1986: 9).

- |     |  |     |  |
|-----|--|-----|--|
| (1) | Hlimoom-i[-t]=s Ann ’nit.<br>help-TR[-3.II]=DET Ann 3.III<br>‘Ann helped <u>her</u> .’ (VSO) | (2) | Hlimoom-i-t ’nii’y=t Ann.<br>help-TR-3.II 1SG =DET Ann<br>‘Ann helped <u>me</u> .’ (VOS) |
|-----|--|-----|--|

Although the order of subject and object here reverses when the object is local, ergative agreement in the form of a verbal suffix remains consistent. However, in the Coastal branch of the family, the same shift to VOS word order is accompanied by a change in the pattern of agreement.

In fact, the Coastal languages boast three different possible agreement patterns based on the absolute and relative person values of arguments in the clause. When the object is third person (here *pro*), suffixal ergative agreement is used as in (3), cognate with the Interior pattern above. When both arguments are participants, both pre- and post-verbal agreement markers are used, one indexing each argument, as in (4). Finally, if only the object is a participant, the preverbal marker is exceptionally used for the ergative, and the object is realized as a verb-adjacent pronoun, as in (5).

- |     |   |     |   |     |   |
|-----|---|-----|---|-----|---|
| (3) | Na anoog-a-m.<br>PST like-TR-1PL.II<br>‘We used to like him.’ | (4) | Ma anoog-u<br>2.I like-1SG.II<br>‘You like me.’ | (5) | T ap’aga=’nu<br>3.I remember=1SG<br>‘He remembered me.’<br>(Sasama 2001; Dunn 1979) |
|-----|---|-----|---|-----|---|

In summary, inverse ‘3-on-participant’ contexts in the Interior involve VOS order and postverbal agreement, while on the Coast they involve VOS order and preverbal agreement (compare agreement in (2) and (5)). While local person objects trigger VSO-VOS alternations in both the Interior and Coastal Tsimshianic languages, in the Coastal languages they additionally trigger changes in agreement. This data motivates an analysis of person-sensitive alternations where *word order* and *agreement* are treated independently; shift in linear order does not uniformly trigger shift in agreement, and vice versa.

PROPOSAL: I propose that both the word order and agreement alternations in Tsimshianic result from repair operations to address a *licensing failure* in independent-order clauses. Crucially, the two distinct types of alternation arise due to differences in the grammatical locus of the person-licensing

requirement, which I propose may be based either in syntax or morphology; each motivates a different type of repair. The classic Person Licensing Condition is *syntactic* (Béjar and Rezac 2003); I propose that it may also be *morphological*, and is so in the Interior languages.

(6) *Two Person Licensing Conditions:*

- a. **S-PLC:** a [PART] feature must enter into an Agree relation with a functional head.
- b. **M-PLC:** a [PART] feature must be realized through overt agreement, or else surface in a prominent prosodic position.

I begin with an analysis of the inverse VOS construction in Interior Tsimshianic, demonstrating that VOS order with local person objects can be empirically differentiated from the VOS order of object incorporation constructions with respect to the position of the agreement marker. I propose that object incorporation VOS is amenable to a pseudoincorporation analysis where O remains in situ in a  $\nu$ P-raising structure which more generally derives verb initial order (Massam 2001), while local-object VOS is the result of later reordering due to the requirements of the M-PLC. I propose that S and O are multiple equidistant specifiers of Voice, O having risen out of  $\nu$ P, and are thus amenable to reordering at the point of linearization with little syntactic consequence. Notably, VOS order is not the result of person-based object shift.

I account for agreement alternations in the Coast languages in terms of a failure for absolutive arguments to receive licensing, required this time by the S-PLC. Independent-order clauses, where person-sensitive agreement arises, typically have only ergative agreement; this leaves absolutive arguments unlicensed. When an absolutive argument is local, this triggers the insertion of secondary, preverbal agreement normally restricted to the dependent order (e.g. Kalin 2018), which opens the door to further hierarchy effects (cf. (4) versus (5)). The Interior languages, which have no syntactic licensing requirement, allow unlicensed absolutives without issue.

Crucially, both versions of the PLC are satisfied by agreement. I suggest that patterns where all arguments agreed were the norm in Proto-Tsimshianic, and that different changes to agreement in each branch contributed to the evolution of two distinct person-licensing generalizations.

CONTRIBUTIONS: This comparative account of the Tsimshianic languages forwards an analysis of person-related asymmetries not only in the domain of agreement, but also word order. I argue for the importance of post-syntactic conditions and operations in person hierarchy effects, encapsulated in the proposal that the post-syntactic component may place conditions on the realization of local person features. An empirical point of particular interest is the fact that no configuration of arguments is outright banned; this suggests that restricted constructions can be rescued. The paper provides insight into various grammatical means of restricting the distribution of local persons, and into possible derivational and post-syntactic repairs able to address different problems.

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## Agreement and Morphology of the Person Feature

Kaori Furuya (University of North Texas)

This paper discusses the imposter phenomenon studied in Collins & Postal (2012) and investigates data from English (non-pro-drop language) and Spanish and Japanese (pro-drop languages). Agreement with an imposter is shown to different patterns between English/Spanish and Japanese, whose patterns also differ from those of a personal pronoun in these languages. The paper proposes that D of a full DP can have a person feature value associated with a discourse participant even when it is lexically underspecified in the framework of the Distributed Morphology.

English and Spanish plural imposters show 1st and 3rd person agreement in (1).

(1) a. In this reply, the present authors<sub>1</sub> (= the writers of the reply) attempt to defend ourselves<sub>1</sub>/themselves<sub>1</sub> against the scurrilous charges which have been made.

(Collins and Postal 2012)

b. Unos servidores quedamos/quedaron en encontrar-nos/-se a las siete.  
some servants decided.1PL/decided.3PL on to.meet-ourselves/themselves at the.PL seven  
'These guys (=speakers) decided to meet each other at seven.'

(Adapted from Dudley 2014)

Moreover, English singular imposters of some dialects of English (Collins and Postal 2012) as well as Spanish singular imposters (Dudley 2014) only show 3<sup>rd</sup> person agreement.

Unlike English and Spanish, a Japanese imposter takes the underspecified reflexive in (2).

(2) *Senseitai<sub>i</sub>-wa ichiban { \*watasitatizisin<sub>i</sub>/\*karerazisin<sub>i</sub>/zibun<sub>i</sub> }-o sonkeisiteiru.*  
teachers-Top most ourselves/themselves/ZIBUN-Acc respect

'Teachers<sub>i</sub> (=we) respect { \*ourselves<sub>i</sub>/\*themselves<sub>i</sub>/self<sub>i</sub> } most.' (Furuya 2016)

These agreement patterns displayed by imposters differ from those by personal pronouns in these languages since the latter do not show the agreement alternation as in (1) or exclusively take the underspecified reflexive as in (2).

These observations suggest that the morphosyntactic variation is not associated with properties of null subjects since the agreement patterns shown by imposters are not uniquely and uniformly observed in pro-drop languages such as Spanish and Japanese. This challenges analyses with a pronominal element such as *pro* or clitic argued by Ordóñez and Treviño (1999), Choi (2014), Torrego and Laka (2015) among others. Moreover, the agreement patterns shown by imposters are also problematic to symmetric approaches to agreement proposed by Ackema and Neeleman (2013) Nikitina and Haug (2015). If both the target and the controller have phi-features independently as symmetric approaches argue, it is not clear how 3<sup>rd</sup> person reflexives and the underspecified reflexive in (1) and (2) are coreferential with the full DPs that are used to refer to speakers. Even though the Spanish verbal forms are morphologically "rich" as shown in (1b), again it is mysterious whether the 3<sup>rd</sup> person form of the verb is associated with the reference to speakers. This weakens null subject and symmetric approaches. Alternatively, Collins and Postal (2012) and Dudley (2014) argue that the agreement alternation in (1) is attributed to different antecedents in a clause. In this perspective, a null topic DP with 1<sup>st</sup> person in the left periphery and the imposter in subject position can determine 1<sup>st</sup> or 3<sup>rd</sup> person agreement. Yet, this analysis fails to account for the selection of underspecified reflexive in (2).

I suggest that D of a full-fledged DP may have a person feature value associated to discourse participants although it is normally assumed to be 3<sup>rd</sup> person. Typologically, it has been noticed that DP-internal concord never involves person features (Baker 2008). Carstens (2011:

section 5) argues that the person feature is intrinsic to D, and Danon (2011: 309) argues that a valued person feature is generated on the D head. However, there is no principal reason that D universally has a specific value for person in the lexicon when it is morphologically underspecified. When D of an imposter DP involves [+Speaker], it refers to the speaker. This nominal as the controller enters into an agreement relation with the target in syntax, and it is correctly interpreted for a reference to speakers in LF. Yet, unlike persona pronoun, a full DP is not morphologically associated with [+Speaker]. That is, notional (functional) features and grammatical (morphosyntactic) features are not always in a one-to-one relation (Landau 2016).

Let us consider the 3<sup>rd</sup> person and underspecified agreement patterns in (1) and (2) in Distributed Morphology. Based on the agreement patterns in (1) in comparison with patterns shown by 3<sup>rd</sup> person pronouns, I assume that the patterns of multiple syncretisms in (3).

(3) Hypothetical multiple syncretisms

	singular	plural
Imposters with a reference to speakers	A	B, C
3 <sup>rd</sup> person pronouns	A	C

There is no person feature value shared by 1<sup>st</sup> person singular and thus A must thus be treated as the default form. B is 1<sup>st</sup> person. What is common in C is plurality in that it is specified for [-Singular]. This is summarized in (4).

(4) a. A ↔ [ ]      b. B ↔ [+Speaker, -Singular]      c. D ↔ [-Singular]

This indicates that singular imposters are uniformly realizing A as default. This explains singular imposters show 3<sup>rd</sup> person or underspecified agreement in (1) and (2). On the other hand, the plural counterparts are realized as B or C in (3). I propose that this results from the optional application of the impoverishment operation in (5).

(5) [Person] on imposter DP → -∅ / [\_\_\_\_, -Singular]

(5) states that the person specification is connected with number specification in imposter constructions (see Watanabe 2012 for a similar argument in Fula). Yet (4) is optional. The application of the impoverishment operation will generate C; otherwise B will appear in PF. Note that the Subset Principle (Halle 1997) is not necessarily applicable to (3) since the existence of the alternatives results from the optional application of (5). What is significant is that the morphological underspecification in (1) and (2) is relegated to the morphological component. . On the other hand, a nominal needs a full set of phi-features to be LF-interpretable and its specification is not underspecified in syntax. Thus, 3<sup>rd</sup> person forms are not underspecified for person and number both in syntax and LF. This argument is compatible with the cross-linguistic fact that 3<sup>rd</sup> person forms are not necessarily associated with a reference to the 3<sup>rd</sup> party in the linguistic literature (e.g. Baker 2011, Furuya 2017 for English)

This paper examines imposter phenomenon in English, Spanish and Japanese. It argues that D of a full-fledged DP may have a person feature value associated with discourse participants. Yet due to the lack of one-to one relation between form and meaning, the person feature of the D head may be possibly underspecified in PF.

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## A common syntax for psychological and locative verbs

Alfredo García-Pardo (SUNY Purchase)

**Overview:** This paper argues that object-experiencer psychological verbs (OEPVs) and locative verbs have the same syntactic structure in their stative reading. I show that the quirky grammatical properties involving the Experiencer objects of OEPVs (the so-called ‘psych effects’) also appear with the Ground objects of locative verbs. I propose a theoretical account that derives psychological and spatial predicates from a core prepositional structure. In so doing, I dispense with thematic roles as grammatical primitives, in the lines of current neo-constructionist, aspectual approaches to thematic interpretation.

**Psych effects:** Stative OEPVs (*worry, amuse, bore...*) display many grammatical quirks across languages known as ‘psych effects’. These effects involve the Experiencer object: despite being morphologically accusative, it patterns with DPs marked with oblique/ dative case (see Belletti & Rizzi 1988; Anagnostopoulou 1999; and Landau 2010 for a recent overview). Among these are:

1. Greek allows for relativization of dative arguments provided a resumptive clitic appears (e.g. (1a)), something impossible with accusative objects (e.g. (1b)); accusative experiencers behave as datives in that respect (e.g. (1c)). The same effect is found in Hebrew (I do not provide the Hebrew examples in this abstract for space reasons).
2. In Russian, accusative objects can switch to genitive case under clausemate negation (e.g. (2a)). DPs bearing inherent case cannot do this (e.g. (2b)); Accusative experiencers behave in this respect like DPs marked for inherent case (e.g. (2c)).
3. Italian allows for left-dislocated experiencers to appear with a dative marker and be linked to a resumptive accusative clitic (3b), which other accusative objects cannot do (3a).
4. Other psych effects include lack of verbal passives, reflexives and periphrastic causatives in Spanish and Italian, not exemplified in this abstract for space reasons.

**Experiencers, case and theta-role:** Psych effects have been taken as evidence that Experiencers are somehow ‘special’, in that they seem to have dedicated syntactic structures. This has been explained by the purported link between inherent case and theta-role assignment (Chomsky 1986). Landau (2010) proposes that the peculiarity of OEPVs is that they contain a PP which contains a silent prepositional head  $P_{\psi}$  that assigns inherent case and an Experiencer theta-role to its DP complement. By modeling these experiencers as unaccusative non-canonical objects within a prepositional domain that assigns them case, Landau successfully explains the psych effects mentioned in 1-4.

**Novel data from locative verbs:** I present novel evidence from locative verbs that casts doubts on the claim that there are dedicated ‘Experiencer’ structures. My data come from stative locative verbs, which denote a spatial relation between two entities (*surround, cover, flank...*). I refer to their subjects as Figures and to their objects as Grounds, following Hale & Keyser’s terminology. The objects of these verbs display morphological accusative case yet they behave exactly like stative OEPVs, i.e. these verbs show ‘psych effects’ too, as the (d) examples show.

- (1) Obligatory resumptive pronoun with relativized object in Greek
  - a. Simbatho ton anthropo pu o Petros \*(tu) edhose to vivlio.  
like.1SG the man.ACC that the Peter.NOM him.CL.DAT gave the book.ACC  
‘I like the man that Peter gave him the book.’
  - b. \*Simpatho ton anthropo pu ton sinandise o Petros  
like.1SG the man.ACC that CL.DAT met the Peter.NOM  
‘I like the man that Peter met him.’
  - c. O anthropos pu \*(ton) endhiaferi i Maria ine ilithios.  
the man that CL.ACC interests the Mary.NOM is stupid  
‘The man that Mary interests is stupid.’ (Anagnostopoulou 1999:77)
  - d. O anthropos pu ?(ton) perikiklonun ta epipla ine omorfos.  
the man that him. CL surround the furniture is handsome  
‘The man that the furniture surround is handsome.’
- (2) Genitive of negation in Russian
  - a. Ja ne našel tzvety/ tzvetov.  
I not found flowers.ACC flowers.GEN ‘I didn’t find (the) flowers.’

- b. On ne upravljao fabrikom/ \*fabriki.  
 he not managed factory.INSTR factory.GEN ‘He didn’t manage a/the factory.’
- c. Šum ne ogorčio ni jednu djevojku/ \*odnoj djevojki.  
 noise.NOM not upset no one girl.ACC one girl.GEN  
 ‘The noise didn’t upset a single girl.’ (Legendre & Akimova 1993, via Landau 2010)
- d. Zabor ne okružuje dom/ {?/?/?}doma.  
 wall NEG surrounds house.ACC {?/?/?}house.GEN  
 ‘The wall does not surround the house.’

- (3) Dislocated dative-marked objects with an accusative resumptive pronoun in Italian
- a. \*A Giorgio, la gente non lo conosce.  
 to Giorgio the people not him know.
- b. A Giorgio, questi argomenti non l’hanno convinto.  
 DAT Giorgio these arguments not him.ACC.have convinced
- c. A Giorgio, non lo circondano i palloni, lo circondano le sedie  
 DAT Giorgio not him.ACC surround the balls, him.ACC surround the chairs  
 ‘Giorgio is not surrounded by balls, but by chairs.’  
*Context:* there are several people with different objects around them. Speaker A believes that Giorgio has balls around him, but Speaker B corrects him by uttering (5b).

**The proposal:** I propose, extending Landau’s (2010) proposal for OEPVs, that the argument structure of both OEPVs and locative verbs is articulated by a PP, whose head  $P_{\Psi}$  assigns structural case to its complement. An example of the syntactic configuration is given in (5), from (4).

- (4) a. The economic crisis worries Mary.    b. The fence surrounds the house.  
 (5) [ $VP$  worry/ surround [ $PP$  [ $DP$  the economic crisis/the fence ] [ $P'$   $P_{\Psi}$  [ $DP$  Mary/the house ]]]]

I depart from Landau’s claim that  $P_{\Psi}$  assigns the theta-role ‘Experiencer’ to its complement, since Grounds like *the house* in (4) are clearly not Experiencers (they are not even sentient entities). Instead, I propose that the syntactic configuration in (5) denotes a generalized relation between two entities at an abstract level (given that Ps are birrelational, Hale & Keyser 2002). If the structure is lexicalized by a psychological predicate, the relation is interpreted as being mental; if it is lexicalized by a locative predicate, the relation is interpreted as being spatial. The formal lexical entry of is provided in (6).

- (6)  $[[P_{\Psi}]] = \lambda x, y \exists \varepsilon, V [EIGEN(\varepsilon, x) \ \& \ root(V, \varepsilon) \ \& \ ENDPOINT(y, V)]$

I assume a generalized variable  $\varepsilon$  that can be understood as a physical or a mental space depending on the root that lexicalizes the structure.  $EIGEN(\varepsilon, x)$  denotes a relation between an entity  $x$  (the complement of  $P_{\Psi}$ ) and the space  $\varepsilon$  it occupies. Then we take that space and project a set of vectors  $V$  away from it, which I represent as  $root(V, \varepsilon)$ . The label *root* stands for whatever psychological or locative-denoting root lexicalizes the  $P_{\Psi}$  head. Finally,  $endpoint(y, V)$  gives us the final point  $y$  of the vectors, which again depending on the root can be understood as a mental Stimulus or a locative Figure.

**Conclusions:** This paper has provided a uniform syntactico-semantic analysis of OEPVs and locative verbs, from the novel observation that ‘psych effects’ also hold for locative verbs in a variety of languages. My findings have challenged the received view that an Experiencer theta-role is somehow at play in the peculiar syntactic properties of these verbal predicates (e.g. by providing an inherent case and theta-assignment account for experiencer objects, as in Landau 2010). I have proposed an alternative analysis that derives their thematic interpretation from the aspectual semantics of the functional head  $P_{\Psi}$ , in the lines of current neo-constructionist approaches to event structure.

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*I would like this abstract to be considered for the special poster session*

## A new perspective on obviation from attitude contexts

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**Introduction:** Languages from the Algonquian family exhibit a morphological pattern called *obviation* which applies to animate third-person referents within and across clauses. Within a clause, at most one referent is proximate (an unmarked designation), while all others are obligatorily obviative marked. Across clauses or sentences, obviation has consequences for restrictions on co-reference: The null pronoun *she* in the Ojibwe example in (1) either refers to the subject *Ziibiins* or the object *Adikoons*, depending on whether it is proximate (1a) or obviative (1b), while its English counterpart is principally ambiguous (see Rose-Little & Moroney 2016 for a formal implementation of these effects). One common view of obviation motivated by these facts is that obviative marks non-topics (e.g. Grafstein 1984). In our presentation, we argue on the basis of novel fieldwork data from attitude contexts and particularly *attitude ascriptions* in Ojibwe that obviation primarily encodes *perspective*.

- (1) Ziibiins andawendam wii-waabamad Adikoons-an, onzaam idash ...  
Ziibiins wants      DESID-see      Adikoons-OBV but      ...  
'Ziibiins<sub>i</sub> wants to see Adikoons<sub>k</sub>, but ...'
- a. aakozi  
sick.PROX  
'she<sub>i/(\*)k</sub> (prox) is sick'
- b. aakzoi-wan  
sick-OBV  
'she<sub>\*i/k</sub> (obv) is sick'

**Data:** One environment where perspective is grammatically encoded is embedding under attitude predicates like *think*. For such cases, it is often assumed that the attitude holder constitutes the default *perspective center*, the person whose speech, thoughts or feelings are being reported. However, attitude reports can come in different varieties, depending on the relation an attitude holder bears towards themselves (= the attitude ascription). Here we focus on cases in which (i) an attitude holder refers to themselves in a self-conscious way (*de se*) or (ii) refers to themselves by accident without being aware that she is doing so (*de re*). An illustration of the former—which we take to be the default—is shown in (2). In this case, co-reference of a (null) pronoun in the embedded clause with the attitude holder in the matrix clause is possible when both are proximate (2a) but prohibited when the pronoun is obviative (2b).

- (2) *De se context*  
Adikoons is at a game night with her friends. For one game everyone has to draw a picture. When Adikoons sees her picture afterwards, she says, "I'm a bad artist". Later in the evening, when Adikoons already left, Makwa is talking to another friend about what happened. Makwa says:
- a. Adikoons inendam mamaazhi-d mezinibii'ige-d  
Adikoons thinks bad-3 IC.draw-3  
Adikoons<sub>a</sub> (prox) thinks she<sub>a</sub> (prox) is bad at drawing
- b. \*Adikoons inendam mamaazhi-ni-d mezinibii'ige-ni-d  
Adikoons thinks bad-OBV-3 IC.draw-OBV-3  
*intended:* Adikoons<sub>a</sub> (prox) thinks she<sub>a</sub> (obv) is bad at drawing

However, in a context in which the attitude holder is unaware that she is talking about herself, as illustrated in (3), it becomes possible to mark the pronoun as obviative despite the attitude holder being proximate (3b). On a topicality view of obviation, this effect is not accounted for insofar as it is unclear how this change in context could affect the extent to which Adikoons is no longer topical. Rather, it provides evidence for a perspectival account. Since the attitude clause in (3b) no longer reports Adikoons's attitude, given that



## The P-constraint, obviation, and word order in Southwestern Ojibwe

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**Goal** The goal of this paper is: (i) extend the *P-constraint* (Zubizarreta and Pancheva, 2017) to account for direct/inverse alignments with the proximate/obviative system of Southwestern Ojibwe (SWO), and (ii) resolve a conflict between the word order predictions derived from this analysis and the observed word orders of SWO. I show that while applying the P-constraint to Voice and Infl captures direct/inverse agreement in SWO, this account *predicts that proximate arguments should generally precede obviative arguments*. I show that the opposite is true—that obviative precedes proximate—and propose that an additional probe on C is responsible for these patterns.

**Agreement** There are three agreement slots in SWO: Voice, Infl, and C, shown in (1). For expository purposes, I limit discussion to matrix verb (i.e. *Independent Order*) agreement. Third person in SWO shows alternations between *proximate* and *obviative*. Proximate arguments are morphologically unmarked, and are generally associated with being a *perspective center* or topic, while all other third persons are *obviative*—a designation marked on the nouns and in agreement (Bliss, 2005; Hammerly and Göbel, 2019). Proximate arguments alternate in number. In most dialects, number is syncretic in the obviative forms.

(1) *Independent order (matrix verb) agreement with third person arguments in SWO*

	Infl	√ROOT	Voice	Infl	C
PROX (PL) → OBV	o- 3-	waabam see	-aa -3	(-waa) (-PL)	-an -OBV
OBV → PROX (PL)	o- 3-	waabam see	-igo -INV	(-waa) (-PL)	-an -OBV

The suffixal nature of much of the verbal morphology in Ojibwe can be derived via a post-syntactic head amalgamation operation (Harizanov and Gribanova, 2018; Hammerly, 2019)—this also derives V1, which is discussed below. The exception is Infl, which arises as a discontinuous prefix-suffix combination (see Oxford, 2018; Harbour, 2008, for a fission-based analysis).

Voice shows what has been referred to descriptively as direct/inverse marking. The direct marker (-aa) indexes the object, and appears when the subject is proximate and the object obviative. The inverse marker (-igo) is an impoverished form, which appears when the subject is obviative and the object proximate. Infl uniformly agrees with the proximate argument—with direct alignments, this is the subject; with inverse, this is the object. At a minimum, this appears with the person prefix o-, but is more apparent with proximate plurals, where -waa appears. Finally, C uniformly agrees with the obviative argument (-an in the examples above).

**The P-constraint** The P-constraint (Zubizarreta and Pancheva, 2017) is extended in (2) to capture direct/inverse alignments with proximate and obviative (note that *P-uniqueness* and *P-primacy*, not shown below, remain unchanged). The P-constraint is an interface condition triggered by the presence of an interpretable person feature (i.e. a *p*-feature) on the head of a phase. If there is a proximate argument within the phase (2a), then it must occupy the phase edge (2b).

(2) *The P-constraint on phases with interpretable p-features—extension to proximate/obviative*

- a. *Domain*: The P-constraint applies to phases containing one or more [+Prox] D
- b. *P-prominence*: There must be a [+Prox] D located at the edge of phase  $\beta$  that agrees with the interpretable person feature on the head of  $\beta$

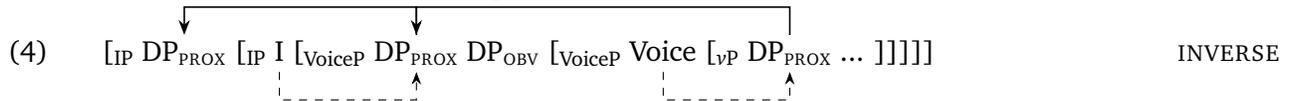
In SWO, I assume that Voice, Infl, and C are phase heads. SWO is a *Generalized P-language* in that both Voice and Infl have a *p*-feature that triggers the P-constraint. I argue that C does not have the relevant *p*-feature, and therefore is not subject to the P-constraint.

The derivation of agreement on Voice and Infl is shown in (3) for direct alignment and (4) for inverse. With direct, Voice agrees with the obviative object, transferring an obviative feature that

leads to the spell-out of this head as *-aa*, but this does *not* trigger movement to the edge. While the P-constraint does apply, the proximate subject already sits in the edge, satisfying (2b). When Infl probes, it agrees with the proximate subject, spelling out as the discontinuous marker *o-* (*-waa*). The P-constraint then requires the proximate argument to move to the edge of the phase (SpecIP).



With an inverse alignment, Voice again agrees with the object. The P-constraint then requires the proximate object to move to the edge of the VoiceP as a second specifier. When Infl probes, it can see both arguments, but is relativized such that the proximate argument is agreed with, and it is again pulled to the edge of the phase to satisfy the P-constraint. Spell-out of Infl occurs as in the direct alignment, however an impoverishment rule (Oxford, 2018) that deletes the features of the lower head when two adjacent heads share the same features (as Infl and Voice do in (4)) results in the deletion of features of Voice, and the spell-out of Voice as the elsewhere form *-igo*.



**A Word Order Puzzle** The derivations in (3) and (4) predict a word order where proximate precedes obviative. Indeed, Algonquian languages such as Passamaquoddy (Bruening, 2005) show this word order. Assuming the head amalgamation operation discussed above brings the verbal complex to the left periphery, this should result in a VSO word order in direct, and a VOS word order in inverse. However, the observed word orders of SWO go against these predictions. Hammerly (2019) shows that with direct alignments, VOS (5a) is preferred, but VSO (5b) is also grammatical. With the *inverse* alignment, VSO is grammatical (5c), while VOS is ungrammatical (5d). In short, there is a *general preference for obviative to precede proximate*.

- (5) *Word order in SWO shows a tendency for obviative to precede proximate (Hammerly, 2019)*
- a. o-waabam-aa-n ikwe-wan gwiiwizens  
3-see-DIR-OBV woman-OBV boy  
'The boy (prox) sees the woman (obv)'  $V_{\text{DIR}} O_{\text{OBV}} S_{\text{PROX}}$
  - b. o-waabamaan gwiiwizens ikwewan  $V_{\text{DIR}} S_{\text{PROX}} O_{\text{OBV}}$
  - c. o-waabam-igoo-n gwiiwizens-an ikwe  
3-see-INV-OBV boy-OBV woman  
'The boy (obv) sees the woman (prox)'  $V_{\text{INV}} S_{\text{OBV}} O_{\text{PROX}}$
  - d. \*o-waabam-igoo-n ikwe gwiiwizens-an  $*V_{\text{INV}} O_{\text{PROX}} S_{\text{OBV}}$

**Towards a Solution** I propose that the conflict between the word order predictions based on the application of the P-constraint to Voice and Infl and the observed word orders in SWO can be resolved by considering the probe on C. Unlike Voice and Infl, C is not relativized to prefer agreement with proximate: C uniformly agrees with obviative arguments. As a result, C is not subject to the P-constraint and does not require a proximate argument to occupy its edge. This agreement opens up the possibility that obviative arguments move to SpecCP—a position preceding the proximate argument, which is sitting in SpecIP. This operation must be relativized to ensure that movement of the obviative argument to this position is not obligatory, to capture the fact that proximate can precede obviative in the direct alignment (5b), and opens questions about the source of variation across Algonquian languages with respect to obviation, agreement, and word order.

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## Situation-anchored Person: PRO as a radically underspecified pronoun

Roland Hinterhölzl (University of Venice)

In this paper, I present arguments against the movement theory of control (MTC) coming from agreement and binding facts in German and argue for an event-based version of the Agree theory of control (ATC), as developed by Landau (2000, 2003, 2006). In particular, I will argue for a presuppositional account of pronominal reference, in which a pronoun's morphological features act as restrictions on the individual and situational argument of its nominal core that consists in the abstract predicate *participant* (x,s). In this scenario, PRO is analysed as a radically underspecified pronoun with its reference being primarily determined by binding its situation argument to the event argument of the higher verb in cases of obligatory control (OC).

**A) Problems of the MTC - Agreement:** German displays nominal predicates that show agreement in Number, Case and Gender with the subject, or more generally with the Case that the subject of the predicate obtains during the derivation. Nominal predicates agree with their local subject also in control infinitives and show Nominative Case, as is illustrated in (1a). This can be explained by assuming that either PRO is assigned Nominative, rather than null Case in (1a), or - in a raising analysis of PRO - that the predicate agrees with the Case that its subject obtains in the matrix clause, which is (also) Nominative, since *try* in German, like in English, is a subject control verb. Things are interestingly different when it comes to object control verbs like *erlauben* (permit) in German, as is illustrated in (1b). In Hornstein's (2003) analysis, the pronoun *him* is first merged in the embedded clause and then undergoes A-movement into the position where the object theta-role is assigned followed by movement to a position that assigns it Dative Case in the matrix clause.

- (1) a. Hans versucht PRO ein großer Künstler zu werden
- b. Maria erlaubt ihm (DAT) PRO ein großer Künstler (NOM) zu werden  
          Maria permits him to become a great artist
- c. \*Maria erlaubt ihm (DAT) t einem großen Künstler (DAT) zu werden

As the contrast between (1b) and (1c) shows, the Case agreement facts do not support an analysis in which the infinitival subject fails to get Case licensed in the embedded clause and is thus raised to a theta- and Case-position in the main clause. In this case, one would expect the predicate to show Dative Case agreement, contrary to fact, as shown in (1c). On the other hand, the agreement facts follow if it is assumed that PRO is assigned Nominative Case in the embedded clause with no A-movement being necessary in (1b).

**B) Problems of the MTC - Binding:** Object control verbs in German differ in their binding properties from what is expected under raising. It is well-known that Dative arguments fail to license Accusative anaphors in German (2a), even though they clearly c-command them (cf. Grewendorf 1989, Haider 1993), as can be seen from the Principle C-effect in (2b). The reason seems to be that anaphors are subject oriented in German (cf. Hinterhölzl 2006).

- (2) a. Hans<sub>1</sub> zeigte sich<sub>1/\*2</sub> ihr<sub>2</sub> im Spiegel  
          John showed her himself /herself in the mirror
- b. \*Hans schickte ihr<sub>1</sub> Marias<sub>1</sub> Bild  
          John sent her Mary's picture

As is illustrated in (3), an object control verb with a Dative controller can license an accusative anaphor in the embedded clause. This is completely expected under the analysis that the embedded subject is licensed as a Nominative marked null pronoun (3a). In the raising analysis of PRO the anaphor in the embedded clause is licensed by a constituent that has been moved (via a theta-position) to a position that is assigned Dative case in the matrix clause.

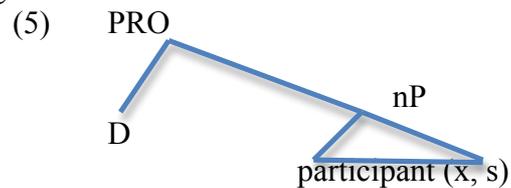
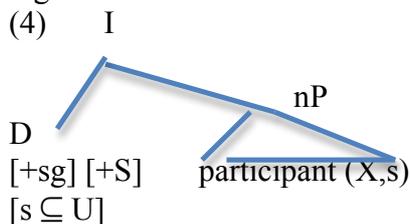
- (3) a. Maria hat ihm erlaubt PRO<sub>1</sub> sich<sub>1</sub> zu rasieren  
          Mary has him allowed himself to shave
- b. Maria hat ihm<sub>1</sub> erlaubt t<sub>1</sub> sich<sub>1</sub> zu rasieren

### C) The alternative account

I argue for a compositional approach to pronouns. Pronouns have an abstract nominal core, as in (4). The D-element is a function that takes this predicate as input and maps it onto the relevant

individual by imposing specific conditions both on the nature of the event argument and on the nature of the individual argument.

The first person pronoun *I* in English is represented as given in (4). The crucial presuppositional conditions for the use of this pronoun are that a) *x* must be a singular participant of the utterance situation ( $s \subseteq U$ ) where it functions as the speaker of this event [+S]. It is these features - supposed to be allocated in D - that semantically constrain the value of the denoted individual and that are spelled out with the phonological matrix *I* in English. Person is reanalysed as participant in specific situations in the discourse. In this compositional approach to pronouns, PRO can be represented as a minimal pronoun, lacking any lexical feature in D, as is illustrated in (5). The identifying features constraining its denotation are supplied via binding and control where control is re-interpreted as an Agree relation in semantic features with a syntactic antecedent in the matrix clause. The crucial denotational restriction of PRO derives from the fact that its situation argument is bound to the event argument of the higher verb.



In this way, the referent of PRO is determined to be a participant of the event denoted by the matrix verb. PRO is anaphoric in that its event argument rather than its individual argument is bound to a syntactic antecedent. Crucially, PRO lacks any presuppositional features that can further constrain its interpretation. Its interpretation is thus crucially determined by the control properties of the matrix predicate. I will show how cases of obligatory exhaustive control (OC), cases of partial control (PC) and cases of lack of control in which PRO is taken to have an arbitrary or generic interpretation can be accounted for in the present approach.

In particular, I will address the differences in Case-agreement between OC and PC in Russian and Icelandic, reported in Landau (2008) and Sheehan (2017). In these languages, embedded predicates can agree in Case with the controller of PRO or show independent case, taken to be assigned by the infinitival Tense head, except in cases of PC where only independent case is possible. I will argue that these differences can be accounted for, if it is assumed that the situation argument is not directly bound by the higher verb but rather that PRO is assigned a value for its situation argument via an Agree relation with infinitival Tense. The differences in agreement pattern is then explained by showing that the reference situation of infinitival Tense is bound by matrix Aspect in cases of PC, but by the matrix Tense head in cases of OC.

Finally, I will discuss how the *de se* reading of PRO can be derived in what can be defined as a *de dicto* approach to the reference of PRO. Pronouns embedded in an intensional context give rise to two readings, called *de re* and *de se*. It is well-known (cf. Higginbotham 2003, Delfitto & Fiorin 2014) that PRO in OC-structures gives rise to strict *de se* readings and is immune to errors of misidentification (IEM-effects) that underlie the *de re* reading of pronouns. (6a) reports a propositional attitude involving a first person direct experience - Freud thinks "I am a good doctor".

- 6) a. Freud believes PRO to be a good doctor  
b. Freud believes that the experiencer of his belief is a good doctor

In the present account to PRO (6a) is interpreted as given in (6b). As a sentient attitude holder Freud cannot fail to be aware that the experiencer of his belief is he himself. In other words, it is part of his experience that this epistemic attitude is directed towards himself. In our account, the direct access of the experiencer to his inner self is represented in that the denotation of PRO is established by exclusive reference to the psychological state, unmediated by a description referring to another event that could serve as an acquaintance relation and be subject to an error through misidentification. In other words, the present analysis of PRO leaves no room for an error through misidentification. I consider this a strong argument in favor of the present account of PRO.

## On the relation between predicates of personal taste and perspective-sensitive anaphora

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Language contains a variety of different kinds of perspective-sensitive elements, including predicates of personal taste (PPTs, e.g. *tasty, fun*), epithets (e.g. *the idiot*), logophoric reflexives (e.g. representational NPs, *picture of herself*), and relative spatial terms (*left/right*). These all make reference to the point-of-view of an individual, sometimes referred to as the perspectival center/anchor (e.g. Bylinina, Sudo, McCready, 2014). Many of these perspectival elements also carry information about the perspectival center's subjective evaluation or stance towards something/someone (e.g. PPTs, epithets). Strikingly, most prior theoretical accounts of perspective-sensitive elements have largely focused on sentences with a single perspectival element. The situation where a single utterance contains multiple perspective-sensitive elements has received less attention and is often only mentioned in passing, although it has important implications for adjudicating between theories of subjectivity and perspective sensitivity (see e.g. Kneer et al. 2016).

Interestingly, recent work by Kneer et al. (2016), Bylinina et al. (2017) and Anand & Korotkova (2016) suggests that, at least on the sentential level and at least with PPTs, *multiple perspectival elements can be anchored to different attitude holders* (see Bylinina et al. on the size of the perspectival domain). However, these studies focused on sentences where the 1st-person speaker is one of the competing attitude holders/judges. This means that prior work may underestimate the allowability of perspectival plurality: Because the first-person is known to be privileged as an attitude holder, it may be that whenever it is available, it is strongly preferred. A clearer picture regarding the possibility of perspectival plurality may emerge in contexts with *multiple third-person attitude holders*.

To investigate these issues, we conducted **an experiment** on the relation between subjective content and perspective-sensitive anaphora. We tested the possibility of perspectival plurality with (i) **subjective adjectives** (specifically, predicates of personal taste, PPTs) and (ii) **logophoric anaphors** (reflexives as well as pronouns) in Representational NPs (RNPs, *photograph of her/herself*). Anaphors in RNPs are commonly argued to be logophoric, sensitive to semantic and pragmatic factors, exempt from the syntactic constraints of Binding Theory (e.g. Kuno 1987, Reinhart & Reuland 1993). Crucially, prior work argues that both reflexives and pronouns in RNPs are sensitive to point-of-view (e.g. Kuno 1987 on reflexives, Tenny 2003 on pronouns). Thus, we can ask how and whether identification of PPTs' perspectival center (judge) relates to identification of the antecedent of logophoric anaphors.

**Experiment:** Participants (n=42) read sentences (ex.1), containing representational NPs modified by PPTs (e.g. *the frightening photograph*), and answered questions (ex.2). We manipulated (i) the verb (*told/heard from*) – thus manipulating the *source-of-information* and *perceiver-of-information* status of the subject and object – and (ii) whether the representational NP (RNP, *photograph of...*) contains a reflexive, a pronoun or no anaphor. We used a Latin-Square design (36 targets, 36 different PPTs, 68 fillers). The questions probe identification of the PPT judge (2b) and, in the anaphor-containing conditions, also probe the antecedent of the reflexive/pronoun in the RNP (2a). On pronoun and reflexive trials, participants first answered (2a) and then (2b). On no-anaphor trials, they only answered (2b). People were asked to imagine they were reading sentences from fiction; the term 'narrator' was explained in the instructions.

- (1a) Reflexive: Nora {told/heard from} Amy about the frightening photograph of herself.  
(1b) Pronoun: Nora {told/heard from} Amy about the frightening photograph of her.  
(1c) No anaphor: Nora {told/heard from} ~~Amy~~ about the frightening photograph.  
(2a) Who is shown in the photograph? Nora  
(2b) Whose opinion is it that the photograph is frightening? Nora Amy Narrator

We consider two competing hypotheses regarding how (and whether) the identification of the perspectival center for PPTs (i.e., the evaluator/judge) relates to the identification of the antecedent of logophoric anaphors:

**Hyp.1: Anaphor-governed judge hypothesis.** If perspective-sensitive anaphors and evaluative PPTs are anchored to a unified perspectival center, we expect converging answers to the *who-shown* and *whose-opinion* questions: If the referent of a **logophoric reflexive is what determines the judge for a PPT in the same constituent**, in sentences like (1a) we expect converging answers to the *who-shown* and *whose-opinion* questions. Given Kaiser et al. (2009)'s psycholinguistic findings that reflexives in RNPs are guided by subjecthood and source-of-information, we expect both *who-shown* and *whose-opinion* questions to show an overarching subject preference, but relatively more object choices with *heard from* than *told* for sentences like (1a), due to reflexives preferring sources-of-information. (The preposition *from* is not problematic, as it would lead us to expect less object choices to the *who-shown* question with *heard from* than *told*, the *opposite* of Kaiser et al.'s findings.)

What about **short-distance pronouns** (*photograph of her*), also claimed to be perspective-sensitive (e.g. Tenny 2003, 2004)? If the *anaphor-governed judge hypothesis* applies to both logophoric reflexives and short-distance pronouns, then – given Kaiser et al. (2009)'s finding that short-distance pronouns in RNPs are biased towards the perceiver-of-information – both the *who-shown* and the *whose-opinion* questions for sentences like (1b) should show an object preference with *told* and a subject preference with *heard from* (perceiver preference). But if the *anaphor-governed judge*

*hypothesis* is restricted to logophoric reflexives, there may be no relationship between the *who-shown* and *whose-opinion* questions in the pronoun conditions.

**Hyp.2: Anaphor-independent judge hypothesis.** If perspective-sensitive anaphors and PPTs can be anchored to different perspectival centers, there is no reason to expect answers to the *who-shown* and *whose-opinion* questions to converge, and no reason to expect the referential biases of reflexives and pronouns in RNPs to determine the judge of evaluative PPTs. Under this view, both PPTs and perspective-sensitive anaphors are associated with perspectival anchors, but these anchors can be distinct and are determined independently of each other. Based on Kaiser et al. (2009)’s work on RNPs, we still expect **pronouns** to prefer perceivers-of-information (subject of *heard*, object of *told*) and **reflexives** to show a subject preference modulated by a source-of-information preference (object of *heard*, subject of *told*). What about the **judges of PPTs**? Recent work by Bylinina (2014) and McNally & Stojanovic (2017) highlights the importance of PPT judges being *experiencers*. In sentences like (1a-c), the most plausible experiencer for the PPT (e.g. the person who experienced the photograph as frightening) is the *source-of-information* (subject of *told*, object of *heard*). Thus, if PPT judge identification is not governed by the anaphor’s antecedent, we may find an *experiencer preference* for *whose-opinion* questions in sentences with and without anaphors (1a-c).

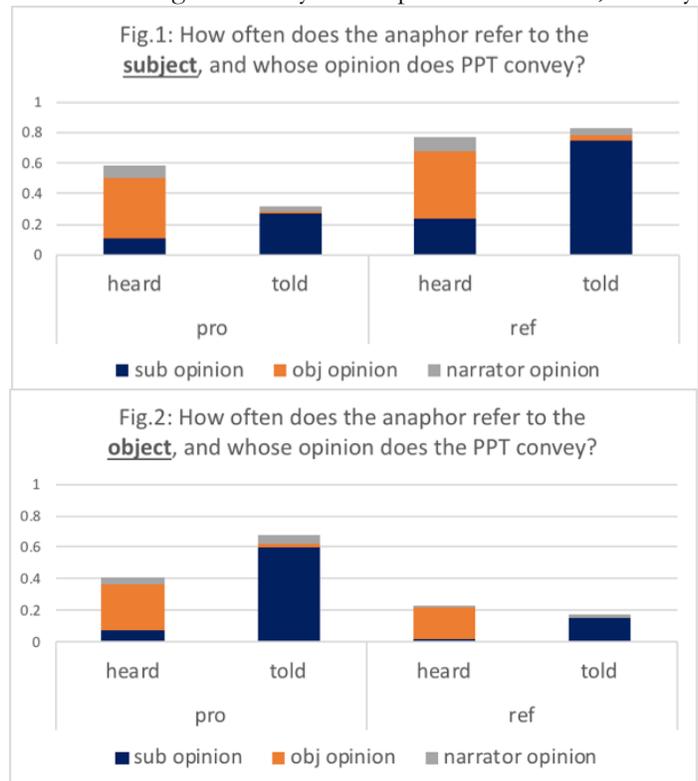
**Results: Who-shown questions (anaphor resolution):** The reflexive conditions trigger significantly more subject interpretations than pronoun conditions (glmer,  $p < .001$ ) which elicit more object interpretations. The rate of object interpretations with pronouns is significantly modulated by the verb: the *tell+pro* condition elicits significantly more object choices than the *heard+pro* condition ( $p < .01$ ). This replicates the perceiver preference (Kaiser et al. 2009). Reflexive conditions elicit numerically more subject choices with *told* than *heard*. This difference is not statistically significant, but it is in line with Kaiser et al. (2009)’s source preference.

**Answers to the whose-opinion questions which probe the interpretation of the PPT (judge identification)** reveal a strong preference to interpret the **source of information** (subj of *told*, obj of *heard*) as the judge, in line with the experiencer-based prediction. This holds regardless of whether the sentence has a pronoun, reflexive or no anaphor (glmer,  $p < .01$ ).

Crucially, **once we combine these two response types**, we find a clear divergence between PPT judge identification (evaluative perspective-sensitivity) and antecedent choice (referential perspective-sensitivity). Fig.1 shows how often the anaphor refers to the subject, and what the *whose-opinion* responses are in each case. If PPT judge identification were aligned with antecedent choice, all bars in Fig.1 should be dark blue (subject opinion). However, as Fig.1 shows, this is clearly not the case in the *heard* conditions with either pronouns or reflexives: despite a high rate of subject interpretations, there is a high rate of object-opinion responses (orange). This disconnect is also visible in Fig.2 which shows how often the anaphor refers to the object. Here, pronouns in particular show high rates of subject opinion responses with *told*, despite an object preference (dark blue).

**In sum**, our results support the **anaphor-independent judge hypothesis**: We find no clear evidence that (i) the judge identification process of PPTs and (ii) the perspectival anchor targeted by logophoric reflexives or so-called short-distance pronouns have to go hand-in-hand. Instead, our results provide clear evidence for perspectival plurality, even when the PPT and anaphoric element are in the same DP-level domain. **Conclusions:** Our findings are compatible with the view that the interpretation of evaluative content, such as identifying the judge/evaluator of PPTs, needs to be distinguished from the interpretation of non-evaluative content, such as the dependencies between logophors and their antecedents, even when both processes are, broadly speaking, perspective-sensitive phenomena.

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left periphery, resulting in allocutivity.

Given the presence of an Addressee-DP as indicated by allocutivity, we ascertain that the structural factor determining agreement between the subject and the Addressee-DP corresponds to the lack of prior case-valuation on the former. This is done by comparing the perfective verb in the allocutive imperative in (3) with its declarative counterpart in (1). The perfective verb in the allocutive imperative is invariable, (5), as opposed to the perfective verb in the declarative, which manifests agreement with the unmarked object, (6).

(5) *tussii kuRii/kuRiyaaN vekhyaa je*  
 2.pl/hon girl/girls.acc see.perf allocH  
 'Please see the girl/girls.'

(6) *tussii kuRii/kuRiyaaN vekhii/vekhiyaaN je/e*  
 2.pl/hon girl/girls.acc see.perf.f.sg/f.pl allocH/be.pres.3.sg  
 'You have seen the girl/girls.'

Assuming ergative valuation within vP (Legate 2008; Woolford 2006 a.o), the phi-invariable perfective verb in the imperative does not value an ergative case on its subject, as evidenced by the unmarked nominative inflection on the modifying quantifier (7). In contrast, the perfective domain of the declarative values ergative on its subject, which despite being unmarked itself, triggers ergative (-ne) inflection (8); (for the diagnostic, see Legate 2014).

(7) *tussii saare kuRii vekhyaa je*  
 2.pl all.nom girl.acc see.perf allocH  
 'Please see the girl!'

(8) *tussii saareyaa-ne/\*saare kuRii vekhii je/e*  
 2.pl all-erg/all.nom girl.acc see.perf.f.sg allocH/be.pres.3sg  
 'You all have seen the girl.'

I take this difference in case of the imperative and the declarative subject to underlie distinct syntactic dependencies with the allocutive head, resulting in distinct clause types. In the absence of case valuation in the Asp-vP domain, the imperative subject targets the next available functional head, corresponding to the finite T-alloc with an [iCase] and an [uAddr]. The subject agrees with T-alloc for case, while T-alloc undergoes Upward Agree for allocutive marking. These two agreement relations- between the subject and T for case on the one hand, and between T and the Addressee-DP for allocutive marking on the other, result in a multiple agreement chain (in the spirit of Arregi & Hanink 2018; Bjorkman & Zeijlstra 2018). The interpretable component of [Addressee] on the Addressee-DP in the chain transmits the [Addressee] feature to the subject, over and above its lexically specified phi-feature set, resulting in the subject being interpreted as the addressee of the speech act, (9). It should be added that the [Addressee] feature could potentially be transmitted to any subject (1st/2nd or 3rd). However, the derivation with a 1st/3rd subject will crash at LF due to presupposition failure; (10).

(9) [ ADDR-DP<sub>[iAddr]</sub> [ alloc-T<sub>[uAddr, iCase]</sub> [2Subj<sub>[uCase, i2pl, Addr]</sub> ] ] ] ]

(10) *\*asii/o kuRii vekhyaa je*  
 1pl.nom/3pl.nom girl.acc see.perf alloc.hon  
 'We/they see the girl!'

In contrast with the imperative subject, the declarative subject gets an ergative case within the vP. This renders it inactive for further case-agreement purposes (following Chomsky's Activity Condition, 1995). Upon merger of the T-alloc, the [uAddr] on T agrees with the Addressee-DP to be realized as *je*; however, there is no agreement between the ergative subject and T, and consequently between the subject and the Addressee-DP; this yields a declarative with allocutivity, see (11). Evidence for the lack of agreement between the subject and the Addressee-DP comes from the possibility to have all 1st/2nd and 3rd subjects, (1). Nothing precludes accidental-coreference between the allocutive marker and the 2nd subject, when available in the declarative. However, this coreference is not grammaticalized via agreement, contra accounts that propose operator-variable binding for all pronouns (Baker 2008).

(11) [ ADDR-DP<sub>[iAddr]</sub> [ alloc-T<sub>[uAddr, iCase]</sub> [AspP-vP 2Subj<sub>[uErg, i2pl]</sub> ] ] ] ]

**Conclusion:** A Jussive-free analysis of the allocutive imperative is parsimonious in that it employs the already existing Addressee-DP instead of postulating a (c)overt functional head. The consequence of such an analysis for imperative syntax is that it weakens the requirement for a construction-specific notion of the Addressee—other conditions met, any source of the addressee situated in the left-periphery suffices to yield imperative syntax. Furthermore, this analysis also contributes to the existing literature on encoding speech act participants in the left-periphery by emphasizing both the presence and the role of Addressee-DP in clause-typing.

**Selected References:** Bjorkman, B. & H. Zeijlstra (2018) Checking up on phi-Agree; Miyagawa, S. (2012) Agreements that occur mainly in main clauses; Pancheva, R. & M. Zubizarreta (2017) The Person Case Constraint: The syntactic encoding of perspective; Zanuttini, R. (2008) Encoding the addressee in the syntax: evidence from English imperative subjects; Zanuttini, R., Pak, M. & P. Portner (2012) A syntactic analysis of interpretive restrictions on imperative, promissive, and exhortative subjects.

## Embedded allocutivity and its reference

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**Introduction.** Allocutivity is typically considered to be a root phenomenon, which occurs on the matrix verb and refers to the addressee of the speech act (see Miyagawa 2012, 2017 for Basque; Portner et al. to appear for Korean). Such a discourse-participant has been claimed to have a syntactic representation above CP and to enter an agreement relation with the verbal morphology. While its root restriction is quite evident in some languages (Korean/Thai), recent studies on Tamil (McFadden 2017) and Magahi (Alok & Baker, ms) show that allocutivity can appear in the indirect speech context. With a view to better understand the reference of embedded allocutivity, we examine two understudied allocutive languages — Punjabi *je* (Kaur 2017, 2018) and Japanese *-mas* (Miyagawa 2012; Yamada 2018).

(1) *raam aayegaa je.*

Ram.NOM come.FUT.M.SG ALLOC.H

‘Ram will come’ (to an honorific hearer).

(2) *ramu-wa ki-mas-u.*

Ram-TOP come-ALLOC.H-PRS

‘Ram will come’ (to an honorific hearer).

In the domain of embedded allocutivity, Punjabi and Japanese differ along two dimensions. First, the predicates that can embed the allocutive marking are different. Furthermore, the embedded allocutive marker takes reference from distinct sources—it always refers to the utterance addressee in Japanese while in Punjabi, its reference alternates between the utterance and the reported addressee based on two structural properties: (a) (c)overt-ness of the goal argument of the matrix verb, and (b) the presence of a 1st subject in the embedded clause. Following Alok & Baker, we claim that there is a syntactically represented Addr(essée) in the embedded left-periphery in both languages; however, this embedded Addr can be controlled by distinct loci — the utterance Addr(essée), the goal argument of the matrix verb, or even a syntactically unrealized but contextually salient addressee of the reported speaker — deriving the differences between and within the two languages.

**When can allocutivity be embedded?** JAPANESE. Contrary to Miyagawa (2012, 2017), who claims that Japanese allocutive markers are restricted to verbs-of-saying as in (3) (Class A in Hooper and Thompson’s (1973) classification), we show that they can appear in wider indirect speech contexts. In the hyperpolite speech register, we can find examples not only with (a) verbs-of-saying but also with (b) factive predicates (*know, realize, understand, apologize, and thank*) and (c) bouletic predicates (e.g., *want, desire and wish*; n.b., the complement of these verbs are non-finite, lacking tense distinction). For example, the sentence in (4) contains *-mas*, which appears in a factive, indirect speech context. The coindexation between the two *kare*’s ‘he’ confirms that this is a non-direct speech environment (Crnič and Trinh 2009).

(3) *kare<sub>i</sub>-wa kanoz<sub>yo</sub>-ni [kare<sub>i</sub>-no haha<sub>o</sub>ya-ga asita mairi-mas-u-koto]-o tugete ori-masi-ta.*

he-TOP she-DAT he-GEN mother-NOM tomorrow come-ALLOC.H-PRS-C-ACC tell PRG-ALLOC.H-PST

‘He was telling her that his mother would come tomorrow.’ (-*mas* = UttAddr)

(4) *kare<sub>i</sub>-wa [kare<sub>i</sub>-no haha<sub>o</sub>ya-ga asita mairi-mas-u-koto]-o zonzite ori-masi-ta.*

he-TOP I-GEN mother-NOM tomorrow come-ALLOC.H-PRS-C-ACC know PRF-ALLOC.H-PST

‘He knew that his mother would come tomorrow.’ (-*mas* = UttAddr)

PUNJABI. Punjabi is not as liberal as Japanese and allows embedding only in finite domains, further restricted to the complement clauses of speech predicates such as *tell, say, speak, ask* — within this list, the structures with *say* are the most natural, and we employ *say* for all relevant Punjabi examples in this paper; see (5). Evidence for indirect speech in the example comes from the possibility to coindex the embedded 3rd pronoun with the matrix subject.

(5) *karan-ne<sub>i</sub> keyaa [ki oddii<sub>i</sub> maa kal aayegii je]*

Karan-ERG say.PRF that his mother tomorrow come.FUT ALLOC.H

‘Karan said that his mother will come tomorrow.’ (*je* = UttAddr)

**Who can embedded allocutivity refer to?** Below, we will compare how allocutive markers behave under the speech act predicate in these two languages. JAPANESE. Japanese does not permit the embedded addressee indexical to shift as per the reported context. In (3), the indexicality of the embedded *-mas* is determined *w.r.t.* the utterance context. It is the addressee of the utterance context, not of the reported context, who is admired by the speaker of the utterance context; it cannot mean that *\*he has/had respect to her*. PUNJABI. Differently from Japanese, the reference of embedded allocutivity in Punjabi is not restricted to the utterance context, and is determined by two factors — (a) an overt goal of *say*, and (b) a co-occurring 1st subject. To see this, let us refer back to (5), where in the absence of a GOAL of *keyaa* ‘say’, the embedded *je* refers to the UttAddr. In contrast, the presence of an overt goal with matching (honorific) specifications shifts the reference of the embedded *je*, (6); this (overt target) requirement for indexical shift also holds for other 1st and 2nd pronouns in the language.

(6) *karan-ne daari<sub>jii</sub>-nuu keyaa [ki miraa kal aayegii je]*

Karan-ERG grandfather-DAT say.PRF that Mira.NOM tomorrow come.FUT ALLOC.H

‘Karan said to his grandfather that Mira will come tomorrow (*je* = grandfather).’

Furthermore, the person specification of the embedded subject also determines the possibility to shift the embedded allocutive marker. With a 3rd embedded subject (seen so far), and also for a 2nd subject, overtness of the GOAL argument is the relevant factor for shifted reference. However, with a 1st person subject, the requirement of an overt GOAL for *je*

is lifted and it can refer to a discourse salient hearer of Karan, (7). Crucially, this connection does not hold in the other direction such that when there is no overt GOAL for ‘I’ but there is one for *je*, neither of them shift, (8).

(7) *karan-ne keyaa [ki maiN aavaangaa je]*

Karan-ERG say.PRF that I.NOM come.FUT ALLOC.H

‘Karan said that I will come (I = Karan and *je* = discourse salient hearer of Karan).’

(8) *karan-ne suneyaa [ki maiN aavaangaa je]*

grandfather-ERG hear.PRF that I.NOM come.FUT ALLOC.H

‘Karan heard that I will come (I = UttSpeaker; *je* = UttAdd).’

**Analysis.** Based on the findings, we propose that embedded clauses in both languages (*koto*-clause in Japanese and finite complements of speech predicates in Punjabi) project a speech act layer composed of at least a *pro*-Addr(essee) that sanctions embedded allocutive markers. Following standard assumptions (Miyagawa 2012; McFadden 2017 among others), the embedded allocutive marker is obtained by agreement between the interpretable/valued instance of [addressee] on the *pro* and the uninterpretable/unvalued instance of [addressee] on a lower functional head, see (9).

(9) [*pro*-Addr<sub>[i,Addr]</sub> [XP X<sub>[u,Addr]</sub> YP]]

We model the different loci of addressee-reference across the two languages by parameterizing control of the *pro*-Addr. Concretely, we follow Alok & Baker in assuming that indexical shift does not require a distinct shift operator (contra Anand 2004; Deal 2018). Instead, it can be explained by the presence of a DP-hearer in the left periphery which binds all 2nd person pronouns in its domain, and is controlled by the GOAL argument of a higher ‘speech act structure’. To capture the language variation, we add one modification to their claim; *i.e.*, languages differ in Addr-controllers. First, Punjabi exhibits shifting of the embedded allocutive marker in the presence of an overt GOAL DP. (a) In this case, embedded *pro*-Addr is controlled by the GOAL of the matrix verb, as in (10). As envisioned in Speas and Tenny (2003), the saP is seen as a ‘speech act structure’ akin to speech act VP predicate, specifying AGENT (speaker), GOAL (addressee) and THEME (utterance). (b) If the GOAL DP is absent in VP, the closest GOAL argument is provided by the highest saP, resulting in the relation between the two Addrs as in (11), where the embedded allocutive refers to the UttAddr.

(10) [<sub>saP</sub> *pro*-Addr<sub>[i,Addr]</sub> [ Subj<sub>matrix</sub> [VP *say* GOAL [ *pro*-Addr<sub>[i,Addr]</sub> [Subj<sub>embedded</sub> X<sub>[u,Addr]</sub> YP ]]]]

(11) [<sub>saP</sub> *pro*-Addr<sub>[i,Addr]</sub> [ Subj<sub>matrix</sub> [VP *say* [ *pro*-Addr<sub>[i,Addr]</sub> [Subj<sub>embedded</sub> X<sub>[u,Addr]</sub> YP ]]]]

Second, for Japanese, in which allocutive-shift never exists, the strategy in (11) is always adopted with/without the GOAL DP in VP. (We are agnostic about the mechanism that suppresses the intervention effect of GOAL DP; this may have to do with the fact that no indexical shifting is allowed in this language, unlike Punjabi and Magahi). Since *pro*-Addr is not sanctioned by the higher GOAL, (a) the embedded *-mas* can appear in the complement clause whose embedding predicate does not have a GOAL argument, *e.g.*, *know* (= (4)), and (b) it always refers to the UttAddr.

However, Punjabi presents one additional factor determining indexical shift of the embedded allocutive marker. To recall, we have seen that in the presence of a co-occurring 1st subject which shifts, the embedded allocutive marker can shift without a corresponding overt GOAL. Magahi also provides a comparable scenario, though with different results. Unlike Punjabi, Magahi does not seem to factor in the (c)overtness of the GOAL DP in shifting the embedded allocutive marker for *tell*. However, with the verbs *think* and *say*, the covertness of the goal argument is crucial in that the embedded allocutive marker is allowed only when there is no shift of co-occurring indexicals. Thus, with a shifting ‘I’ (with an overt target) in (12), the allocutive marker (= *au*) is disallowed.

(12) *John socha h-o [ki ham tej h-i-(\*au)]*

John think be-ALLOC.H that I smart be-1.SG-(\*ALLOC.H)

‘John thinks that I (= John) am smart.’

(Alok & Baker, ms)

Returning to Punjabi, the same configuration albeit with ‘say’ does not rule out the allocutive marker. Instead, the indexical shift of ‘I’ forces a context-shift of the embedded allocutive marker irrespective of a (c)overt GOAL. The reverse configuration, however, does not show any shift, (8). We take this to indicate that there is an intrinsic hierarchy between *pro*-Speaker and *pro*-Addr in the language (in the spirit of Deal 2017, 2018), such that if *pro*-Speaker gets controlled by the reported speaker, *pro*-Addr must also find a local controller. This local controller is typically realized in syntax; however, it can also be located in discourse as a last resort.

**Alok, D. & Baker, M.** ms. *On the Mechanics (Syntax) of Indexical Shift: Evidence from Allocutive Agreement in Magahi.* / **Deal, A. R.** 2017. *Shifty asymmetries: universals and variation in shifty indexicality.* / **Deal, A. R.** 2018. *Indexiphors: Notes on embedded indexicals, shifty agreement, and logophoricity.* / **Kaur, G.** 2017. *Variation in subject-triggered clitic restrictions: A Case of Punjabi.* / **Kaur, G.** 2018. *Addressee Agreement as the Locus of Imperative Syntax.* / **McFadden, T.** 2017. *The morphosyntax of allocutive agreement in Tamil.* / **Miyagawa, S.** 2012. *Agreements that occur mainly in main clauses.* / **Miyagawa, S.** 2017. *Agreement beyond phi.* / **Portner, P., Pak, M., Zanuttini, R.** to appear. *The addressee at the syntax-semantics interface: Evidence from politeness and speech style.* / **Yamada, A.** 2018. *Historical developments/variations of Japanese addressee-honorific markers and economy principles.*





# Mood alternations in Spanish: the diachronic expansion of subjunctive

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## 1. Introduction

In Spanish, the inconsistent relationship between mood (inflectional morphology) and modality (grammatical expression of truthfulness) leads to cases where the indicative and subjunctive moods alternate. This paper analyzes modal alternations with negated epistemic verbs in Spanish, from the Golden Age (from 1500 to 1700) to Contemporary Spanish. The corpus sample is formed by sentences that contain *no creo que* 'I don't think that', since they have sometimes been described as ungrammatical when followed by indicative. Our data indicate that this mood alternation results from a diachronic expansion in the use of subjunctive in Spanish.

## 2. Background

Epistemic verbs display the mood alternation in 1 and 2. The sentences in 1 show that the verb in the complement clause can display both subjunctive and indicative mood. Rivero 1977, among others, states that the use of indicative in the subordinate clause (1b) indicates a commitment to the truthfulness of the statement. By contrast, the subjunctive mood (1a) implies that the speaker does not want to assume any responsibility about the degree of certainty expressed by the complement clause. Based on this, Ridruejo 1999 explains that 2, where the main verb is in 1st person singular and the embedded verb is in indicative, is ungrammatical because it is not possible to diversify the commitment to truthfulness given that the main verb expresses the opinion of the speaker. However, corpus data obtained by Harrington & Pérez-Leroux 2016 found some examples of the construction *no creo que* 'I don't believe that' followed by indicative, which they relate to the occurrence of overt *yo* 'I' and negation scope.

## 3. Corpus Study

For the synchronic data, we extracted 400 sentences from CREA that contained *no creo que* 'I don't think that', out of which 13 had to be excluded for several reasons. For the diachronic data, we extracted all the sentences containing *no creo que* in the corpus CORDE (362 tokens total), out of which we were able to use 348. Table 1, in which future and conditional have also been excluded because they could be considered irrealis (akin to subjunctive), shows that in Golden Age Spanish indicative was used much more frequently than subjunctive in this construction. In Contemporary Spanish, however, the use of indicative with this verb has decreased to only 2.1%, and its use has become marginal. In contemporary Spanish, the related constructions *no pienso que* 'I don't think that' and *no digo que* 'I don't say that' also show a use of subjunctive which is almost categorical (89%) in the corpus sample obtained from CREA.

## 4. Conclusion

The results of this research show that Golden Age Spanish was in a process of change, but instead of evolving toward a simplification of the tense/mood system in favor of the indicative, like French for example, Spanish has favored the overt expression of mood as an indicator of modality with epistemic verbs, which is causing an expansion in the use of subjunctive.

- (1) a. *No cre-e que Pedro se-a inteligente.*  
 not believe-3SG.PRES.IND that Pedro be-3SG.PRES.SBJV intelligent  
 'I don't believe that Pedro is intelligent.'
- b. *No cree que Pedro es inteligente.*  
 not believe-3SG.PRES.IND that Pedro be-3SG.PRES.SBJV intelligent  
 'I don't believe that Pedro is intelligent.'
- (2) *Yo no cre-o que todo es plata.*  
 I not believe-1SG.PRES.IND that Pedro is[3SG.PRES.SBJV] silver  
 'I don't think that everything is money.'  
 (CREA 2018)

**Table 1: Mood by Century; Crosstabulation**

		Golden Age SP	Contemp. SP	Total
<b>Indicative</b>	<b>Count</b>	182	8	190
	<b>% within Century</b>	70.3%	2.1%	29.7%
<b>Subjunctive</b>	<b>Count</b>	77	373	450
	<b>% within Century</b>	29.7%	97.9%	70.3%
<b>Total</b>	<b>Count</b>	259	381	640
	<b>% within Century</b>	100.0%	100.0%	100.0%

	Value	df	p value
<b>Pearson's Chi-Square</b>	343.267	1	.000

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## Person-based alignment in Algonquian: voice, agreement, or both?

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**Proposal.** In this talk I argue that the “inverse” verb morphology of the Algonquian languages, which is conditioned by a person hierarchy (cf. Zubizarreta & Pancheva 2017 on Paraguayan Guaraní), occurs in two distinct morphosyntactic environments:

- **Environment 1: Inverse morphology reflects inverse syntax**

Inverse morphology appears when the patient is mapped to the structural subject position.

- **Environment 2: Inverse morphology without inverse syntax**

Inverse morphology appears when the patient is not mapped to the structural subject position, but is *agreed with* as though it were the subject.

If we regard Environment 1 as a passive-like voice construction (Wolfart 1991), then Environment 2 can be described as a context in which passive-like morphology appears *spuriously*, in the absence of passive-like syntax, conditioned by purely morphological factors. From this viewpoint, Algonquian inverse morphology patterns similarly to Chukchi antipassive morphology, which occurs in clauses that are syntactically antipassive (parallel to Environment 1) but also in certain other contexts (parallel to Environment 2, dubbed the “Chukchi Spurious Antipassive” by Hale 2002). Recognizing two distinct morphosyntactic sources for inverse morphology allows us to explain two facts that are not adequately captured by existing formal analyses that treat all inverse forms in the same way (e.g. Brittain 1999; McGinnis 1999; Béjar & Rezac 2009; Lochbihler 2012; Oxford 2017; Despić & Hamilton 2017): (a) the Environment 1 inverse is invariant across the entire Algonquian family while the Environment 2 inverse varies extensively in its conditioning both across and within languages; and (b) there is syntactic evidence that the patient c-commands the agent in Environment 1 inverse forms but not in Environment 2 forms. The overall lesson is that, even within a single language, there can be variation in the degree to which person-based *morphological* alignment correlates with person-based *syntactic* alignment.

**Environment 1.** All Algonquian languages show an alternation between the two transitive constructions shown for Menominee in (1). The two constructions are thematic paraphrases, both meaning ‘the woman sees the man’, but their morphosyntax differs. In the default “direct” construction in (1a), the agent ‘the woman’ is realized with “proximate” inflection and is indexed by the “central agreement” suffix on the verb (-w ‘3sg.PX’); the preceding “theme sign” suffix indexes the object (-æ: ‘3OBJ’). In the marked “inverse” construction in (1b), it is instead the patient ‘the man’ that is realized with proximate inflection and indexed by central agreement on the verb, and the verbal theme sign suffix is realized as a special inverse marker -ekw rather than indexing the object.

(1) a. næ:wæ:w enoh metæ:moh anenoh enæ:niwan  
næ:w -æ: -w [enoh metæ:moh -Ø] [anenoh enæ:niw -an ]  
see -3OBJ -3SG.PX [that.PX woman -PX] [this.OBV man -OBV]  
‘The woman sees the man.’

b. niak enoh enæ:niw anenoh metæ:mohsan  
næ:w -ekw -w [enoh enæ:niw -Ø] [anenoh metæ:mohs -an ]  
see -INV -3SG.PX [that.PX man -PX] [this.OBV woman -OBV]  
‘The woman sees the man.’

(Bloomfield 1962:39)

This pair of sentences can be described as showing a voice alternation (Wolfart 1991): the default voice in (1a) maps the *agent* to subject position while the inverse voice in (1b) maps the *patient* to subject position. The subjecthood of the patient in (1b) is indicated by its morphological properties (marked with proximate inflection, indexed by central agreement), its pragmatic properties (more topical than the agent), and, importantly, its syntactic properties: there is evidence from variable binding that in an inverse clause, the patient

# AUTOMATED CLASSIFICATION OF SEMANTIC PARAPHASIAS

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## 1 Introduction

In clinical assessment of people with aphasia, impairment in the ability to recall and produce words for objects (*anomia*) is assessed using a confrontation naming task, where a target stimulus is viewed and a corresponding label is spoken by the participant. Vector space word embedding models have had initial results in automating this task [1]; however, the resulting models are also highly dependent upon training parameters. To select an optimal family of models, we fit a beta regression model to the distribution of performance metrics on a set of 2,880 grid search models and evaluate the resultant first- and second-order effects to explore how parameterization affect model performance. A central methodological question in natural language processing research is how to use extrinsic evaluation to measure what semantic relations are encoded by a model. In this paper, we engage in the interdisciplinary question of how lexical relations can be modeled in a clinical domain, and present an application of word embedding models for assessing semantic impairment.

## 2 Natural Language Processing and Models of Lexical Semantics

In natural language processing, one approach to modeling a vocabulary of lexical items is to quantify their distributional properties in a large corpus of language data by taking the immediately local context of words around some target word. Then, words that occur in similar contexts/share distributional properties are taken to have some type of semantic similarity. Current methods for quantifying word vectors have roots in Brown clustering [2], Latent Semantic Analysis [3, 4], among others, and the more recent neural network approaches such as the *word2vec* Skipgram architecture rely on a similar underlying distributional hypothesis [5]. Recent research into word embedding models has shown that different hyperparameters used to train models changes the resulting embedding space such that the relationship between word vectors appears to capture different lexical relations. For example, the window size around a target word the immediately local context of words around a target word in a corpus appears to capture different information regarding word association vs. synonymy, as well as functional properties vs. topicality. Word embedding models have been adapted to capture synonymy, association, and hypernymy [6, 7, 8, 9]. Evaluation of these models involves an extrinsic data source, such as a list of word pairs with human ratings of similarity or a list of analogies, and the embedding space compares cosine similarity measures between the word vectors to see whether the embedding space correlates with human ratings.

## 3 Clinical Databases as Extrinsic Evaluation

The Philadelphia Naming Test (PNT) is a confrontation naming task that has been developed for psycholinguistic and clinical research; the scoring of this test involves a large taxonomy of naming responses based on phonological and semantic similarity of the response to the target object [10]. The taxonomy is activated by Dell's two-step model of aphasia, where anomia results from a disruption in accessing both the phonological representation as well as semantic properties of the object [11]. Conventional scoring of the PNT defines criteria for semantic errors that involves a real word or noun production that is an one of six semantic relations with the target word; e.g. synonymy: *AOILET* → *Acommode*"; category coordinate: *BANANA* → *Aapple*"; superordinate: *APPLE* → *Afruit*"; subordinate: *ALOWER* → *Arose*"; associated: *BENCH*

→ "park"; diminutive: *DOG* → "doggie" [10]. Canonical word embedding tasks used in NLP research strive to model semantic relations that are used in the definition of PNT semantic errors such as synonymy and association (e.g. [6, 7]), and should be well suited for application to identifying/classifying semantic paraphasias in the PNT.

The PNT consists of 175 items, represented by a set of black-and-white images, and selected based on a series of controls, involving varying word frequency based on [12], word length (1 to 4 syllables), and high name performance by control participants [10]. The Moss Aphasia Psycholinguistic Project Database (MAPPD) contains transcribed responses from over 300 administrations of the PNT, and is often used in aphasiological research; in this work, we use a subsample of 152 administrations selected on the basis of clinical characteristics. The frequency and length controls for targets on the PNT, in addition to the relations that define semantic paraphasic errors on the naming test, establish a paradigm for target-production word pairs that is quite similar to the structure of certain external evaluation datasets developed for word embedding models. For example, SimLex-999 [6] is a benchmark dataset that balances word association strength using the USF Free Association norms, samples from both associated and unassociated word pairs, and controls for features such as the concreteness and part-of-speech of the word pairs. Additionally, the PNT involves human evaluation of these semantic relations – in this case, two trained clinicians – with instructions much like SimLex that train evaluators to look for specific dimensions of semantic similarity when evaluating whether a word pair is semantically similar. Comparing results from MAPPD, which depends on a clinician's identification of a word pair as semantically similar, with results from SimLex-999 should establish whether clinical data is a reliable evaluation metric for embedding models.

## 4 Experiment

The current study tests whether model architecture, corpus preparation, and training parameters influence the semantic content of the word embedding model, as measured via the downstream classification task of scoring paraphasic errors on the PNT. We performed a grid search over these sets of parameters, and we evaluate the resultant models on both the PNT dataset as well as the SimLex-999 dataset [6], to evaluate and compare what patterns both evaluation methods find in the data. In doing this, we ask whether the Philadelphia Naming Test can be used as a valid extrinsic evaluation for word embedding models.

**Design and Methods:** 2,880 word embedding models were trained using Gensim v3.4.0 on the English Gigaword corpus of newsire text, varying the following parameters: the type of model architecture (CBOW vs. Skipgram), corpus preparation (stemming and stopword removal), the size of the symmetrical context window (0-25), *dimensionality* of word embedding vectors (100-750 dimensions), and *minimum word frequency* threshold (100-5000). We evaluated the word embedding models using a semantic classification task for all trials in the MAPPD database. We took the orthographic representation of the visual target item and the produced response to the naming task to be a target-production word pair in the embedding model, and used cosine similarity scores as input to the classifier to determine semantic similarity of target-production pairs in MAPPD. Word pairs involve an out-of-vocabulary word were assigned a similarity score of 0. For all cosine similarity scores for a given grid search model, we calculated the Area Under the Curve for the Receiver Operating Characteristic (AUC for ROC; [13]) to determine the best cut-off as to whether a similarity score was considered a semantic paraphasia or a non-semantic paraphasia. We take AUC score as a broad, threshold-independent evaluation of model performance [14] and use this as a criteria for selection of our optimal family of models from the above parameter settings. We used beta regression [15] to model the distribution of the AUC scores from our grid search, and used the resulting coefficients to find optimal settings for each parameter.

**Results:** For all models, optimal parameters are minimal frequency threshold=100 and maximal dimensions=750. Skipgram models are optimal when the corpus is stopword removed/not stemmed; window size  $n = 1$ . CBOW models are optimal when the corpus is stemmed/stopword-removed. CBOW models are generally optimal with large window sizes; an exception is window  $n = 1$ , where the CBOW models have high performance. Optimization over the SimLex dataset, using Spearman's rank correlation coefficient between human and model scores, shows similar parameter settings as the clinical MAPPD dataset for dimensionality, model type and window size. Key differences in frequency threshold are related to differences in out-of-vocabulary items. Stemming is dispreferred across the SimLex dataset, which differs from the MAPPD CBOW models. As MAPPD utilizes only a limited vocabulary of nouns, the stemmed corpus might have a smaller effect than on the more morphologically varied SimLex word pairs. An additional qualitative investigation related to neighborhood density of the 175 PNT target words across different models results in a very different geometry of the resulting embedding space. Qualitative investigation of the linguistic similarities for different models is in progress, and shows that word sense ambiguities play a role in model performance; we will report results of qualitative investigation as well.

**Conclusion:** Using beta regression to explore how parameterization affects model performance, we show that performance on MAPPD and SimLex-999 datasets depends on similar optimal parameters. However, results also reveal the importance of further investigation into the geometry of resulting vector spaces and the importance of qualitative linguistic analysis of lexical relations. We demonstrate that the MAPPD dataset, based on a carefully constructed clinical assessment, is useful as an evaluation task for word embedding models and sheds additional insight onto the sensitivity of training parameter selection.

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c-commands the agent (Bruening 2001, 2005; cf. Bliss 2005), and in Ojibwe and East Cree, the inverse reverses the default word order of the agent and patient DPs (Rhodes 1994; Junker 2004).

**Environment 2.** All Algonquian languages show the inverse voice alternation in (1) in clauses involving two third-person arguments. Most Algonquian languages also show inverse morphology in certain contexts in which the patient is a speech-act participant (SAP). These additional inverse forms differ from the inverse form in (1b) in three ways: 1) they do not alternate with a thematically equivalent default form; 2) there is no syntactic evidence that the patient c-commands the agent; and 3) their distribution varies extensively across the languages. The table in (2) gives a synopsis of the variation in “conjunct” verb forms in which a non-SAP acts on a SAP. All variation involves diachronic extension of inverse morphology to forms that were not originally marked as inverse in Proto-Algonquian, and, as is evident from the table, the many attested patterns fall along a “staircase” cline conditioned not only by the *person* of the SAP patient, as in a prototypical inverse system (e.g. Zubizarreta & Pancheva 2017), but also by its *number*, as well as the status of the agent as inanimate (‘it sees...’), impersonal (‘people see...’), or animate (‘s/he sees...’).

(2) Variation in inverse marking in conjunct forms with SAP patients

LANGUAGE		MORPHOLOGY IN CONJUNCT FORMS WITH SAP PATIENT											
		‘it sees...’				‘people see...’				‘s/he sees...’			
		2pl	1pl	2sg	1sg	2pl	1pl	2sg	1sg	2pl	1pl	2sg	1sg
CENTRAL	Proto-Algonquian, Kickapoo	—	—	—	—	—	—	—	—	—	—	—	—
	Meskwaki	INV	INV	INV	INV	—	—	—	—	—	—	—	—
	Menominee, Ojibwe, Cree	INV	INV	INV	INV	INV	INV	INV	INV	—	—	—	—
	Northern Algonquin, Woods Cree	INV	INV	INV	INV	INV	INV	INV	INV	INV	—	—	—
	Parry Island Ojibwe, Plains Cree	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV	—	—
	Alternative Parry Island Ojibwe	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV
EASTERN	Passamaquoddy, Mi’kmaq 1	—	—	—	—	—	—	—	—	—	—	—	—
	Mi’kmaq 2	INV	—	—	—	INV	—	—	—	INV	—	—	—
	Mi’kmaq 3	INV	INV	—	—	INV	INV	—	—	INV	INV	—	—
	Delaware	INV	INV	INV	—	INV	INV	INV	—	INV	INV	INV	—
	Massachusetts	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV

**Analysis.** I propose that in spite of its heterogeneous syntactic underpinnings, the Algonquian inverse has a unified morphological analysis: inverse morphology appears *whenever T agrees only with the patient* (as formalized in Oxford 2017, to appear; cf. Zubizarreta & Pancheva 2017). There are two ways that this configuration can arise. In an Environment 1 inverse, a passive-like transformation demotes the agent and promotes the patient to subject position; this leaves T with no choice but to agree with the patient, thus making the appearance of inverse morphology inevitable and invariable. In an Environment 2 inverse, on the other hand, T is not forced by a voice construction to agree only with the patient; rather, it does so simply because the phi-features of the patient are a better match for the probe on T than those of the agent. The distribution of the Environment 2 inverse will thus vary depending on exactly how the probe on T is specified: does it probe for person only, or for more specific person features such as [participant] (as in Béjar & Rezac 2009), or for number as well (as in Coon & Bale 2014)? I will show how an analysis along these lines can derive the full range of variation in (2), and I will consider the degree to which this analysis can be reconciled with the “interpretable person” proposals of Ritter & Wiltschko 2014 and Zubizarreta & Pancheva 2017.

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## The modular locus of the Person Case Constraint

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One of the questions raised in the call-for-papers of this workshop is whether the Person-Case Constraint (PCC) is purely *syntactic* (Anagnostopoulou 2003, et seq.; Bejar & Rezac 2003, 2009; Nevins 2007), or involves the *syntax-semantics interface* (Pancheva & Zubizarreta 2018). This framing could be seen as somewhat puzzling, since there is a venerable tradition that claims that the PCC is, in fact, *morphological* (Bonet 1991, 1994). While we will argue against the latter claim, it is important to understand—and take seriously—the factors that led to its proposal. Once this is done, it becomes clear that the PCC is quite inescapably *syntactic*.

**Premises:** (1) a. Distinctions that are exclusively about *meaning* are inaccessible at the PF interface.  
b. Distinctions that are exclusively about *sound/sign* are inaccessible at the LF interface.

**Distributional evidence:** As already observed by Bonet (1991:190ff., using data from Georgian), PCC effects come and go with the presence of overt agreement in phi-features. So, for example, the Basque finite clause in (2a) gives rise to PCC effects, while the non-finite nominalization in (2b) does not, despite containing the very same combination of arguments:

- (2) a.\* Zuk **harakin-ari** **ni** saldu n(a)iozu (data from Laka 1996)  
you.ERG **butcher-the.DAT** **me.ABS** sell.PTPL 1.ABS-AUX-sg.ABS-3sg.DAT-2sg.ERG  
'You have sold me to the butcher.'  
b. Gaizki irudi-tzen Ø-zai-Ø-t [ zuk **ni** **harakin-ari** sal-tzea ]  
wrong look-IMP 3.ABS-AUX-sg.ABS-1sg.DAT [ you.ERG **me.ABS** **butcher-the.DAT** sell-NMZ ]  
'It seems wrong to me for you to sell me to the butcher.'

Importantly, this cannot be attributed to finiteness *per se*. In a language like Spanish, for example, PCC effects persist in non-finite contexts (compare (3b) and (2b)).

- (3) a.\* Juan **me** **los** recomendó  
Juan **CL1sg** **CL3pl** recommend.PAST  
*Intended:* 'Juan recommended me to them.' (*ok as:* 'Juan recommended them to me.')
- b.\* Recomendár-**me-los** es una sorpresa  
recommend.INF-**CL1sg-CL3pl** COP DET.Fsg surprise  
*Int.:* 'Recommending me to them is a surprise.' (*ok:* 'Recommending them to me is a surprise.')

The same intra-linguistic effect seen in (2a–b) can be observed cross-linguistically, as well: by and large, PCC effects are found exactly and only in languages where one finds overt phi-feature agreement with internal arguments (see Preminger 2019 for further discussion). In sum:

- (4) DESCRIPTIVE GENERALIZATION: a construction *C* in language *L* will show PCC effects *iff* verb phrases in *C* show overt phi-feature agreement with at least one internal argument

**Argument:** We can now show that the PCC is not a syntax-semantics interface effect. For concreteness, let us assume Pancheva & Zubizarreta's 2018 account (henceforth, P&Z; but note that the argument here applies more broadly, to any account of this general type.) On this account, the PCC is about *perspectival agreement*, or more specifically, syntactic agreement in a "p-feature," which serves to encode semantic perspective within the syntax. For P&Z, it must be the case that non-finite ditransitives like the one in (2b) do not involve perspectival agreement. That is, there is a difference between the syntax-semantics of the ditransitive verb phrases in (2a), (2b), and (3b), on the one hand, and the ditransitive verb phrase in (2b) (as well as its all finite ditransitives, in any language that lacks overt agreement morphology).

Crucially, for this to work, the child must learn that the existence of "p-feature" agreement covaries—even internal to her language—with the presence of overt phi-feature agreement (cf. (2a–b) vs. (3a–b), and, more generally, (4)). But now recall (1b): if our conception of modularity in grammar is correct, and the PCC is a syntax-semantics interface effect, (4) should be unstateable (and, consequently, unlearnable).

**What to make of perspectival effects in ditransitives:** Just as we have preached to take seriously the data that motivated Bonet to claim that the PCC is morphological, one should not dismiss the data that motivated P&Z to claim that the PCC arises at the syntax-semantics interface. Just like (2–4), the data is real and we must contend with it. To take a representative example, consider (5a–b) (from Ormazabal & Romero 2007, cited by P&Z, ultimately attributing the observation to Roca 1992):

- (5) a. Mateo<sub>i</sub> piensa que se lo\*<sub>i/j</sub> entregaste a la policía. (Spanish)  
 Mateo thinks that CL.DAT CL3sg.ACC handed.2sg to the police  
 ‘Mateo thinks that you handed him over to the police.’  
 b. El paquete<sub>i</sub> especifica que se lo<sub>i</sub> entregues al portero.  
 the package specifies that CL.DAT CL3sg.ACC hand-SBJNC.2sg to.the doorman  
 ‘The package specifies that you should hand it over to the doorman.’

In (5a), the accusative clitic *lo* cannot refer to a perspective-holder – *Mateo* – even though there is nothing binding-theoretically wrong with this clitic referring to the matrix subject, as binding by the inanimate matrix subject in (5b) shows. P&Z, following Charnavel & Mateu 2015, take this to indicate that the PCC is not about person features *per se*, but about perspective holders (with the proviso that 1st and 2nd person are perspective holders by definition).

This last step, however, is logically underdetermined. That certain perspectival effects are found in a construction *C* in no way means that *C* involves agreement in perspective-related morphosyntactic features. An analogy with a less controversial empirical domain may help clarify: Pullum (2014) shows that, in the English passive, the grammatical subject must be at least as old, information-structurally, as the NP in the *by*-phrase. This is demonstrated in (6a–b):

- (6) a. Have you heard the news about YouTube? It was bought by Google.  
 b. Have you heard the news about Google? \*YouTube was bought by it/them.

No one (we would hope) would take these data to suggest that the English passive involves syntactic agreement in [ $\pm$ newinfo] or [ $\pm$ given]. The lesson that (6a–b) teaches us is that, once morphosyntax makes some structure (in this case, the passive) available, semantics and/or pragmatics can overlay additional usage conditions—above and beyond morphosyntactic well-formedness—upon the use of this structure.

In the same vein, what P&Z (and Charnavel & Mateu) have shown is that ditransitives—or, more accurately, applicative phrases—trigger an extra semantico-pragmatic usage condition, limiting the number of perspective holders allowed in this structure. This is a real and interesting discovery; but what facts like (6a–b) demonstrate is that such findings do not, in and of themselves, justify the leap to reifying these effects in morphosyntactic feature agreement. Given that the latter step, as it pertains to PCC effects, runs into the problems surveyed above (cf. (2–4))—it is a step that should be rejected in this case.

**Against a morphological account:** So far, we have seen evidence against conceiving of the PCC as a *syntax-semantics interface phenomenon*. Does this warrant a return to Bonet’s *morphological* conception of the effect? Here, we call on work by Albizu (1997) and Rezac (2008), showing that the PCC in Basque is sensitive to the local c-command relationship between the absolutive and dative arguments. Space limitations preclude a detailed discussion here, but a summary is given in (7):

- (7) a. DAT  $\gg$  ABS  $\rightarrow$  PCC effects. (where ‘ $\gg$ ’ means asymmetric c-command)  
 b. ABS  $\gg$  DAT  $\rightarrow$  No PCC effects.

Under any contentful definition of how “morphology” differs from “syntax,” c-command is the purview of the latter, not the former. Thus, these findings militate against a morphological account of the PCC, at least in Basque. Consequently, no morphological account can lay claim to being a general account of the PCC, any more than a syntax-semantics account can. We are hemmed in, then, from both sides: the PCC must be a result of purely syntactic factors.

**Conclusion:** Ditransitives, the empirical domain where PCC effects typically arise, show perspectival effects (P&Z, Charnavel & Mateu 2015). This alone, however, does not suffice to show that perspective is in any way involved in the morphosyntax of the construction and, specifically, in the morphosyntax of PCC effects. A view where the syntax-semantics interface is involved in the PCC turns out to be incompatible with the facts concerning its cross- and intra-linguistic distribution, which closely tracks with PF information: the occurrence of overt phi-feature agreement. Given that a morphological approach is also untenable (Albizu 1997, Rezac 2008), the only remaining option is the one already put forth by Anagnostopoulou (2003, et seq.), Bejar & Rezac (2003, 2009), and Nevins (2007): the PCC is a syntactic effect, and more specifically, one that arises via the mechanisms of phi-feature agreement in syntax.

## What kind of (non)person is *se*, and how might it be related to *-je* and *-mbo*?

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Slavic *se* (cf. also Romance *se*) presents several puzzles for linguistic analysis, including (i) that it has a wide and overlapping range of functions (1-5); (ii) that it cannot really be analyzed as a reflexive pronoun (2); and (iii) that it occasionally involves first person interpretations (1) (Kański 1986: 195; Rivero & Milojević-Sheppard 2003). Some previous proposals treat *se* in Serbian as a purely grammatical element, such as an expletive subject/object (e.g. Franks 1995; Progovac 2005). However, these analyses are incomplete. Here I present a unified account of *se* in its various manifestations in Serbian, including, but not limited to, passive-like, middle-like, reflexive-like, reciprocal (all of them referred to as “middles”). Next, I show how this radically different approach can shed new light on some loose ends in the analysis of portmanteau person patterns in Paraguayan Guaraní (PG) (Zubizarreta & Pancheva 2017).

The proposal is that middle *se* structures in Serbian are intransitive, with (at most) one *syntactic* (nominative) argument slot available, whether subject-like, or object-like, or both at the same time, giving rise to massive vagueness (2a; 3; 5). Syntactically, *se* can be analyzed as an expletive, dummy particle in VoiceP, blocking any further elaboration of argument structure, accusative case, or the active-passive differentiation. Semantically, these structures feature one unspecified thematic role of a proto-participant (4;6) (see e.g. Dowty 1991 for proto-roles). But the deeper questions certainly arise here: why and how would such structures arise? This type of grammar is arguably based on the absolutive foundation (Progovac 2015a,b), comparable to (7) from Tongan, an ergative language, also exhibiting theta vagueness. Tchekhoff (1973) expressly states that (7) is not ambiguous, but rather vague, involving one unspecified participant Mary in the event of Calling, consistent with the semantics in (8). In his characterization of ergativity, the absolutive is the first (or only) argument, and the ergative is the second (added) higher argument (9).

If so, *se* can be seen as flagging a different, parallel type of grammar in Serbian, suggesting that Serbian may be a split-accusative language, on analogy with split-ergative languages. In Nichols *et al.*'s (2004) typology, Serbian would be classified as a detransitivizing language, with *se* serving as a detransitivizer. While nom-acc patterns are certainly the dominant grammar in Serbian, (absolutive-based) *se* middles are fully productive and rather common, especially for expressing low-elaboration of events (e.g. low animacy; reflexivity; anti-causativity).<sup>1</sup> It is the vagueness of these *se* constructions that frees them to interplay with the point of view of the speaker, giving rise to first person interpretations. This approach reveals deep connections between erg-abs and nom-acc patterns, and considers syntax to be a patchwork quilt of various patterns accrued during language evolution (Progovac 2015a, 2018). Taking the intransitive absolutive to be the common denominator and the evolutionary foundation for building a variety of transitive types, this approach invokes both evolutionary tinkering (Jacob 1977), and Dependent Case Theory (Yip *et al.* 1987, Marantz 1991, Baker & Vinokurova 2010). With rare exceptions, transitive structures add just one extra piece to the foundational structure, whether on top (erg) (9), or the bottom (acc) (10), and serial verb patterns string together a limited number of intransitive clauses, often just two (11) (e.g. Aboh 2009). This is where formal, typological, and evolutionary considerations come together.

In their rich and insightful treatment of argument alignment in Paraguayan Guaraní, Zubizarreta & Pancheva (2017) leave a couple of loose ends which the above approach can shed new light on: the use of portmanteau morphemes for 1<sup>st</sup>/2<sup>nd</sup> person (12) and the lack of overt objects with such morphemes (12b vs. 13). It is helpful to observe that the illustrated patterns are intransitive by default, requiring a special transitive marker *-mbo* to yield transitivity. This is the opposite of what one finds with *se* in Serbian: while *se* detransitivizes, in order to circumvent the default accusative grammar, *-mbo* transitivizes, in order to circumvent the default intransitive grammar. If so, then these portmanteau morphemes may be remnants of an older strategy to fit two (participant) arguments into an intransitive frame (with just one argument slot, hence portmanteau), and this essentially intransitive grammar seems to be preserved even under the addition of *-mbo*. If this is indeed a fossilized, transitional strategy between intransitive and transitive patterns, then it is not surprising that it prohibits (overt) 2nd person objects.

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<sup>1</sup> PG *-je* seems to be related to *se* in that it is also intransitive, as well as employed for reflexive, passive-like, and impersonal functions, sometimes involving theta vagueness.

- (1) (a) Nie pchaj się pan! (Polish) (b) Ne guraj se! (Serbian)  
 not push SE man not push SE  
 ‘Stop pushing me, man!’ ‘Don’t push me/us.’
- (2) (a) Pas se ujeta. (b) Pevalo se glasno. (Serbian)  
 dog SE bites sung SE loudly  
 ‘The dog bites (someone)/???itself.’ ‘It was sung loudly.’
- (3) Deca<sub>NOM</sub> se udaraju/grle<sub>3PL</sub>.  
 children SE hit/hug  
 ‘The children are hitting/hugging each other.’ ?‘The children are hitting/hugging themselves.’  
 ‘The children are hitting/hugging somebody (else.)’ ‘One spanks/hugs children.’
- (4)  $\exists e [H(e) \wedge \text{Participant (Children,e)}]$
- (5)  $\check{Z}$ ene se  $\check{c}$ uju.  
 women<sub>NOM</sub> SE hear<sub>3PL</sub>  
 ‘(The) women hear themselves.’ ‘(The) women hear each other.’ ‘One can hear (the) women.’  
 ‘Women get heard.’ (e.g. because they are loud, persistent, etc.)
- (6)  $\exists e [H(e) \wedge \text{Participant (Women,e)}]$
- (7) Oku ui ‘a Mele (Tongan; Tchekhoff 1973: 283)  
 PRES call ABS Mary  
 ‘Mary calls.’ / ‘Mary is called.’
- (8)  $\exists e [C(e) \wedge \text{Participant (Mary,e)}]$
- (9) Oku ui ‘e Sione ‘a Mele.  
 PRES call ERG John ABS Mary  
 ‘John calls Mary.’
- (10) (a) Mary is bathing. (b) Mary is bathing them.
- (11) Àsíbá bé lèsi dù (Gungbe; Aboh 2009: 26)  
 Asiba collect rice eat  
 ‘Asiba ate a lot of rice.’
- (12) (a) (Che) a-jahu (b) (Che) ro-mbo-jahu  
 (I) 1SG-bathe (I) PORT-TR-bathe  
 ‘I bathe.’ ‘I bathe you.SG.’
- (13) (Che) a-mbo-jahu ichupe / Juan-pe ‘I bathe him/Juan.’ (Zubizarreta & Pancheva 2017)  
 (I) 1SG-TR-bathe him / Juan-PE

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## PredP & Person in Kinande

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**BACKGROUND.** Predication is one of the most fundamental relations that exists in the grammar of a language. Nonetheless, its exact structure remains unclear. Stowell's (1981, 1983) work on non-verbal predication, as in (1), suggests *small clause* is the basic unit of predication, where SC is a projection of the predicate. However, the fact that a nominal predicate can have a possessor (2) argues against that view. If multiple specifiers are not allowed and if small clauses are projected directly from the predicate, it should not be possible for there to be a subject of predication when a nominal predicate has a possessor. This is an inaccurate prediction (3).

- |   |                                    |
|---|------------------------------------|
| (1) John considered [Roy an idiot].                                     | (2) [ <i>her daughter's</i> enemy] |
| (3) Ok: Kirsten considered [ <b>Roy</b> [ <i>her daughter's</i> enemy]] |                                    |

These and other considerations lead to the proposal that predication does not arise as a direct projection of the predicate. If, instead, predication is mediated by a functional head, then nothing prevents a possessed nominal from being predicated of a subject:

- (4) [Roy [ Pred<sup>0</sup> [*her daughter's* enemy]]]

Analyses of predication along these lines have been proposed by researchers such as Bowers (1993), Dechaine (1993), and den Dikken (2006). Specifically, Bowers proposes a dedicated functional projection for predication that he calls *PredPhrase*, headed by the functional category *Pred*.

- (5) [<sub>PREDP</sub> ZP [<sub>PRED</sub> Pred [ XP]]]

Matushansky & de Dreu (2009) call the existence of PredP into question. Specifically, they argue that Bantu languages provide no evidence in favor of its existence. I present here evidence from Bantu languages, and Kinande in particular, in support of PredP.

**THE DATA.** When Bantu languages are considered, and primary non-verbal predication is examined, a widespread phenomenon is for an invariant, non-tense-marked particle to occur in the present tense. An example of a language with such a strategy is Kinande, where the invariant particle “ni” mediates predication:

- |   |   |
|---|---|
| (6) a. Kambale <b>ni</b> mugalimu<br>Kambale is 1teacher<br>'Kambale is a teacher.' | b. Abantu <b>ni</b> bagalimu<br>2man is 2teacher<br>'The men are teachers.' |
|---|---|

Invariant particles are not rare cross-linguistically in primary predication. However, they are not widely attested in secondary predication. Kinande is an exception, and invariant particles mediate predication in contexts of secondary predication:

- |  |  |
|--|--|
| (7) SMALL CLAUSE<br>a. ngáconsiderere Mariá *( <b>mó</b> ) mwira wage<br>1sg.consider 1Maria <b>MO</b> 1friend 1.my<br>'I consider Maria my friend.' | OBJECT DEPICTIVE<br>b. Kámbale mwálya enyamá *( <b>mó</b> ) mbísi<br>Kambale 3sg.ate 9meat <b>MO</b> 9raw<br>'Kambale ate the meat raw.' |
|--|--|

**DISCUSSION.** The invariant particle found in primary predication is not restricted to present tense. It is also found in specificational predications in non-present tenses in Kinande. It is the lower element in the functional domain, and the copula is the higher tense-bearing element. This suggests that both tense and predicational domains are involved. Furthermore, the higher, tensed, element is not invariant, but instead agrees with the subject:

- |   |                      |
|---|----------------------|
| (8) a. ómwibí <b>ni</b> Magúlu<br>aug-thief is Magulu<br>'The thief is Magulu.' | <b>PRESENT TENSE</b> |
| b. ómwibí á-byá *( <b>í-ni</b> ) Magúlu<br>aug-thief 3sg-was NI Magulu          | <b>PAST TENSE</b>    |

The distribution of invariant particles in Kinande is exactly as predicted if small clauses are headed by a functional particle, rather than the predicate.

An asymmetry in person agreement and predication provides additional support for PredP. 1st and 2nd person subjects must use the agreeing verbal copula, rather than the invariant particle found with 3<sup>rd</sup> person subjects:



## A derivational approach to Japanese pronouns

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**Synopsis:** This paper pursues a derivational analysis of Japanese pronouns, and provides support for the view that the notion “pronoun” is not a primitive (Wiltschko 1998, Déchaine and Wiltschko’s 2002).

**Issue:** A partial list of Japanese person pronouns is given in (1).

(1)

	Singular	Plural/Group
1st	<i>ware, watakusi, watasi, wasi, etc.</i>	<i>ware-ra, watasi-tati, watasi-tati, wasi-ra, etc.</i>
2nd	<i>anata, an'ta</i>	<i>anata-tati, an'ta-ra, an'ta-tati</i>
3rd	<i>kare, kanozyo</i>	<i>kare-ra, kanozyo-ra, kanozyo-tati</i>

As shown in (2), Japanese pronouns can be modified by an attributive modifier (Kuroda 1965).

(2) *Mary-wa* [ *sinsetu-na* {*watasi* | *anata* | *kare*} ]-*o aisi-teiru.*  
 Mary-TOP kind-COP.ADNOM I you he -ACC love-ASP  
 Lit. ‘Mary loves kind {me | you | him}.’

(3) shows that the 3rd person pronoun cannot receive a bound variable reading (Hoji 1991).

(3) *dono gakusei<sub>1</sub>-mo* [ *kare<sub>1</sub>-ga kasikoi to* ] *omot-teiru.*  
 every student-MO he-NOM smart C think-ASP  
 ‘Every student<sub>1</sub> thinks that he<sub>{\*1 | 2}</sub> is smart.’

Given these properties, Noguchi (1997) argues that Japanese pronouns are NPs. Under the N-pronoun analysis, Japanese pronouns can be modified by an attributive modifier because they are NPs. Moreover, NPs are constant, and hence cannot be interpreted as a bound variable. However, Yashima (2015) argues that the 3rd person pronoun can be interpreted as a bound variable if Binding Condition B and the antilogophoricity constraint are simultaneously satisfied. In (4), the matrix subject is not a person whose perspective of the attributive content of the pronoun (i.e. *kare* ‘he’) is evaluated. Furthermore, the pronoun is embedded inside the relative clause, and there is no Condition B violation. In this case, a bound variable reading is possible.

(4) *dono gakusei<sub>1</sub>-mo sensyuu* [[*RC kare<sub>1</sub>-o suisen-sita*] *sensei* ]-*ni orei-o okutta.*  
 every student-MO last.week he-ACC recommend-did teacher -to present-ACC sent  
 ‘Every student<sub>1</sub> sent a present to the teacher who recommended him<sub>1</sub> last week.’ (Hoji et al. 2000)

The availability of the bound variable reading in (4) is problematic for the N-pronoun analysis because there should be no contrast between (3) and (4), with regard to the availability of the bound variable reading. More recently, Yashima (2015) proposed that the Japanese 3rd person pronoun is an epithet and is born as a DP. However, if the 3rd person pronoun is a DP, it is not clear how to capture the fact that Japanese pronouns can be modified by an attributive modifier, as in (1). We thus have a tension between these two previous analyses; the N-pronoun analysis vs. the D-pronoun analysis.

**Proposal:** We propose that Japanese pronouns are born as NPs. Based on the pronouns given in (1), we identify two head nouns; *re* and *ta*. The pronouns in (1) are now decomposed as in (5).

(5) a.

	$\pi$ -feature	N
1st	<i>wa</i>	<i>re</i>
2nd	<i>na</i>	<i>re</i>
3rd	<i>ka</i>	<i>re</i>

b.

		$\pi$ -feature	N	
1st		<i>wa</i>	<i>ta</i>	<i>si</i>
2nd	a	<i>na</i>	<i>ta</i>	
3rd		<i>ka</i>	<i>ta</i>	

The denotations of *re* and *ta* are given in (6).

(6) a.  $\llbracket ta \rrbracket^{w, c, g} = \{x_c \mid \text{person}'(x)(c)\}$       b.  $\llbracket re \rrbracket^{w, c, g} = \{x_c \mid \text{individual}'(x)(c)\}$

Pronouns headed by *ta* always refer to a person, and we assume that *ta* denotes a set of persons in a context *c*, as in (6a). On the other hand, *re* can be used as a head of impersonal pronoun such as *sore* ‘it’. Given this, we assume that *re* denotes a set of individuals, as in (6b). As for  $\pi$ -features, we analyze *wa* as a realization of the 1st person feature, adopting privative feature system. Similarly, *na* is a realization of the 2nd person feature, and *ka* is a realization of the 3rd person feature, as in (7). (7a) denotes a singleton set whose sole member is the speaker in a given context. Similarly, (7b) denotes a singleton set whose sole member is the



## Person, politeness, and the embeddability of imperatives

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**1. Drawing a new connection: politeness and imperatives.** Many languages have grammatical markers of politeness that cannot be freely embedded. These markers express information on the social/hierarchical relation between speaker and addressee. Examples include allocutive agreement in Basque (Oyharçabal 1993), the Japanese politeness marker *-mas* (Miyagawa 2012), and the speech style particles of Korean exemplified in (1) and (2):

- (1) *pi-ka oass-supnita.*  
rain-nom came-dec.formal  
'It rained.'
- (2) \**Inho-ka [pi-ka oass-supnita-ko] hayssta.*  
Inho-nom rain-nom came-formal-comp said  
(Intended) 'Inho said it rained.'

In this paper, we argue that the same factor that prevents markers of politeness from being embedded is also at play in an unexpected place: it constrains the embedding of imperatives.

We develop this insight into a formal analysis that combines ideas from the treatment of imperatives by Zanuttini et al. (2012), the analysis of second person pronouns of Baker (2008) and Kratzer (2009), and the representation of the addressee in the left periphery by Speas and Tenny (2003), Miyagawa (2012), Haegeman and Hill (2013) and Zu (2018).

Drawing a connection between the encoding of the speaker-addressee relation and the embedding of imperatives allows us to understand the complex patterns that we find. Cross-linguistically, we see the difference in embedding illustrated by Italian, where a canonical imperative cannot be embedded (3) and by Korean, where an imperative can be embedded if marked with a “plain form particle” (4), which does not encode information on the speaker/addressee relation:

- (3) \**Ha ordinato mangia.*  
has ordered eat.Imp  
(Intended: 'He/she ordered to eat!')
- (4) *Inho-ka mek-ula-ko hayss-ta.*  
Inho-Nom eat-*Imp.pln*-Comp said-dec  
'Inho said to eat.'

**2. Our hypotheses.** Intuitively, imperatives are often “face threatening” because they are seen as an imposition on the addressee. In our view, this reflects the fact that imperatives, in many cases, express that the speaker is socially higher than (with power over) the addressee. In languages like English, the marking of the social relation between speaker and addressee is covert; however, in other languages it is expressed overtly. We encode the speaker-addressee relation in the syntax with a feature [status], whose values are [status:  $S < A$ ], [status:  $S \geq A$ ], etc. We have developed a semantics for the [status] feature in a paper to appear in *Language*.

The first hypothesis we make is that **imperatives differ from other clause types in their functional structure and its connection to the subject**. Specifically, all imperative clauses have a functional projection JussiveP that introduces the 2nd person feature and Agrees with the subject, thus sharing the person feature with it ([author: -]). This explains the well-known restriction on imperative subjects to the second person.

The second hypothesis is that **the [status] feature is linked to the person feature**. Specifically, when [status] is present, it always co-occurs on a functional head with the person feature in the left periphery.

Our third hypothesis is that, **when imperatives cannot be embedded, it is because they contain the [status] feature in the functional structure of the clause**. When [status] is absent, imperatives can be embedded.

**3. The speaker-addressee relation in syntax.** According to our previous work, when the [status] feature is present, it is introduced in the projection of the left periphery that also introduces first and second person features in the way proposed by Baker (2008) and Kratzer (2009). This projection, which we label cP ('little c' for 'context'), cannot be embedded because of the special meaning of [status], which “performatively” affects the discourse context. We take Korean speech style particles, allocutive agreement, and Japanese *-mas* to realize c directly; the restriction on embedding cP thus accounts for the main clause status of

these forms. In contrast, we take second person pronouns to be bound by *c* and receive both their person feature [author: -] and the [status] feature from it. We argue that they can occur in embedded clauses precisely because they receive their features via binding. That is, they are minimal pronouns and get their [status] feature from the functional head *c* (which is in the main clause) by binding and subsequent agreement, in a way similar to how person features are treated by Kratzer (2009) and Baker (2008).

In imperatives, the Jussive head introduces the second person feature, and so it plays the role of *c*. (We assume that Jussive and *c* are both projected but are spelled out together, but one could also consider Jussive a variety of *c*.) Thus, in imperatives, Jussive+*c* hosts both the person feature [author: -] and the [status] feature. What is special about the Jussive head is that it *Agrees* with the subject, and shares features with it (and with *T*) that way. Thus it must be in the same clause as the imperative subject.

**4. Explaining the embeddability of imperatives.** In Korean, all clauses (imperatives included) can be embedded when they have a plain form particle, as in (4); this is because the plain form particle does not mark [status]. In contrast, clauses (imperatives included) cannot be embedded when they have a speech style particle; this is because they mark [status]. We see this in the declarative in (2) and the imperative in (5), which contrasts with (4):

(5) \*Inho-ka [mek-eyo-ko] hayss-ta.  
 Inho-Nom eat-*Imp.Polite*-Comp said-dec  
 Intended: ‘Inho said to eat.’

In other words, Korean has imperatives with the [status] feature (5) and imperatives without it (4), and only the latter can be embedded. In other languages, like Italian, one cannot remove the [status] feature from an imperative. We explain this in terms of the interplay between imperative structure and the features marked on a second person pronoun. Specifically, because the subject pronoun (when overt) and verb form mark the polite-familiar relation (cf. (6)-(7)), [status] must always be present when the person feature [author: -] is present:

(6) Rispetta l’ambiente! respect. <i>Imp</i> the-environment ‘Respect the environment!’ (familiar)	(7) Rispetti l’ambiente! respect- <i>Subj</i> the-environment ‘Respect the environment!’ (polite)
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Thus, there is no direct analogue in Italian of the Korean plain form, i.e. an imperative clause that does not encode [status]. Hence there are no embedded imperatives. The closest thing would be the infinitival directives like (8), which state a requirement on people in general:

(8) Rispettare l’ambiente! respect- <i>Inf</i> the-environment ‘Respect the environment!’ (to people in general)	(9) Rispettare i (*tuoi/*vostri) genitori! respect the your(sing/pl) parents ‘Respect (your) parents!’
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Crucially, the infinitival directive cannot contain a second person pronoun, (9), because it lacks the [status] and person features.

**5. Conclusion.** We have proposed that, in some languages, the person feature goes hand-in-hand with the [status] feature, which conveys information on the speaker/addressee relation. Building on this, we have put forth a new approach to the embeddability of imperatives. Whereas most work has assumed that the restriction on embedding imperatives has to do with their directive illocutionary force, we propose that it is due to their encoding of the speaker/addressee relation. This allows us to draw a connection between imperatives and main clause phenomena that involve the speaker/addressee relation, such as speech style marking and allocutive agreement.

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