

The speaker-addressee relation at the syntax-semantics interface

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Abstract

Languages have several grammatical means of expressing the relation between speaker and addressee, including speech style particles, politeness pronouns, allocutive marking, and honorifics. Despite the similarity in the meaning they convey, these politeness markers fall into two distributional classes: some (‘content-oriented markers of politeness’) can occur in complement clauses, while others (‘utterance-oriented markers of politeness’) are restricted to matrix contexts. Focusing on speech style markers in Korean and second person pronouns in Romance languages (especially Italian), we develop a dynamic pragmatics model of the distinct kind of meaning that they encode and provide an analysis that accounts for their distributional differences.*

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1. GRAMMATICAL PATTERNS FOR EXPRESSING SOCIAL RELATIONS

In this paper we investigate the syntax and semantics of ‘politeness’, the ways in which languages encode in their grammars information about the social relation between two individuals — whether they are on equal terms, or one is deferential to the other, and so forth. As pointed out by Comrie (1976), languages can morphosyntactically express these types of social relations in at least two ways.¹ One consists in expressing information about the relation between the speaker and the referent of a noun phrase. For example, the polite and familiar pronouns in French, Italian, and German express whether the speaker is in a formal or a familiar relationship with the referent of the pronoun, who is the addressee of the utterance. Another way of expressing politeness in the grammar consists of encoding information about the relation between the speaker and the addressee without the addressee necessarily being a participant in the event denoted by the predicate. The speech style particles of Korean provide an example of this type. They do not refer to an entity, so they do not contribute to the propositional content of the sentence, but they convey information about the social dimension of the utterance: the relation between speaker and addressee, and the formality of the situation in which their interaction takes place. We call the first kind of politeness markers CONTENT-ORIENTED MARKERS OF POLITENESS, and the second UTTERANCE-ORIENTED MARKERS OF POLITENESS.²

A key grammatical difference between content-oriented and utterance-oriented markers is that the former can be readily embedded, but in many cases the latter cannot be. Our main goal in this paper is to better understand this difference. To accomplish this, we conduct a study of speech style particles in Korean, identifying the syntactic and semantic/pragmatic properties that determine their embeddability. We propose that the ‘unembeddable’ particles are represented syntactically in a specific layer of the high periphery of the clause (cP), and argue that they cannot be embedded because of the type of meaning they express, which is not appropriate to serve as the argument of a predicate. We then ask why content-oriented markers are not restricted in the same way; we propose that they do not themselves directly mark politeness information, but rather are dependent on a (possibly null) *c* in the root clause that does so. This idea allows us to capture the generalization that these markers contribute to semantic content by referring to an individual, while also explaining how they express a social relation between speaker or addressee and that individual.

In the remainder of this section, we will describe and motivate in greater detail the distinction between content- and utterance-oriented markers and highlight their syntactic difference.

¹There are other ways to express politeness, for example with indirectness (*Would you mind telling me ...?*), lexical choice (e.g., *washroom/bathroom/toilet/can*) or titles and epithets (*sir/buddy/son*) (Brown & Levinson 1987, a.o.). We focus exclusively on the analysis of those morphological forms and syntactic patterns that meet the descriptions we offer below.

²Other terms for a similar distinction are ‘referent honorifics’ vs ‘addressee honorifics’ (Comrie 1976), ‘propositional’ vs ‘performative’ honorifics (Harada 1976 a.o.), and ‘utterance honorifics’ vs ‘argument honorifics’ (McCready to appear).

1.1. CONTENT-ORIENTED MARKERS OF POLITENESS

Content-oriented markers refer to an entity, and this referent is contributed as an ordinary argument to the propositional content of the sentence; moreover, they express information about the relation between the speaker and that entity. We'll look at two examples.

Politeness pronouns. Some languages distinguish pronouns that mark whether the speaker and the addressee are on familiar terms or in a more distant/formal relation. This contrast is sometimes referred to as 'the *T/V* distinction' after French *tu/vous*. In Italian, for example, a *T* form (*tu, ti, te*) is used if the addressee is a friend or a relative, while the *V* form (*Lei, Le*) is used by children to adults who are not close friends or relatives, or among adults who are not close.³

- (1) Gli infermieri **ti/Le** porteranno un bicchiere d'acqua.
the nurses you.FAM/you.POL will-bring a glass of-water
'The nurses will bring you a glass of water.'

These pronouns can readily be embedded.

- (2) Hanno detto che gli infermieri **ti/Le** porteranno un bicchiere
have said that the nurses you.FAM/you.POL will-bring a glass
d'acqua.
of-water
'They said that the nurses will bring you a glass of water.'

Note that the familiarity or deference is not attributed to the matrix subject, but to the speaker. In other words, the politeness meaning is not semantically embedded, though the pronoun is syntactically in an embedded clause.

Honorifics. Some languages have honorifics that express the relation between the speaker and the referent of a noun phrase (which may or may not be the addressee). In Korean, for instance, the speaker's deference and respect toward the referent of the subject is expressed by the honorific nominative particle *-kkeyse* and the honorific affix *-si* on the verb.

- (3) Wuli pwumonim-**kkeyse** ecey o-**si**-ess-ta.
our parents-NOM.HON yesterday come-HON-PAST-DEC
'My parents came yesterday.'

Honorifics, like politeness pronouns, are readily embeddable.

- (4) Inho-ka pwumonim-**kkeyse** ecey o-**si**-ess-ta-ko malhayss-ta.
Inho-NOM parents-NOM.HON yesterday come-HON-PAST-DEC-COMP said-DEC

³Abbreviations used: A absolutive, ALLOC allocutive, AUX auxiliary, ACC accusative, COMP complementizer, DEC declarative, F feminine, FAM familiar, HON honorific, IMP imperative, INT interrogative, M masculine, NEG negation, NOM nominative, POL polite, PRES present, TOP topic, VOC vocative.

‘Inho said his parents came yesterday.’

1.2. UTTERANCE-ORIENTED MARKERS OF POLITENESS

Utterance-oriented markers do not contribute a referent to the propositional content. They only convey information concerning the relation between speaker and addressee, and sometimes the formality of the utterance context. We’ll mention three examples.

Speech style particles. Korean marks the relation between speaker and addressee and the formality of the utterance situation with a group of sentence final particles traditionally called ‘speech style particles’. For example, the particle *-supnita* indicates that the addressee is older or socially higher than the speaker, the context of utterance is formal, and the sentence is a declarative.

- (5) Ecey pi-ka o-ass-**supnita**.
yesterday rain-NOM come-PAST-DEC.FORMAL
‘It rained yesterday.’

With one exception to be discussed later, these speech style particles cannot be embedded:

- (6) *Inho-ka [ecey pi-ka o-ass-**supnita**-ko] malhayss-supnita.
Inho-NOM [yesterday rain-NOM come-PAST-DEC.FORMAL-COMP] said-DEC.FORMAL
‘Inho said that it rained yesterday.’

Allocutive marking. Allocutive markers in Basque signal an addressee that is not an argument of the verb and is on ‘familiar terms’ with the speaker (Oyharçabal 1993; Hualde & Ortiz de Urbina 2003). We see an example in 7: when allocutive marking is present, the auxiliary form *da* is replaced by *duk* or *dun* depending on the gender of the addressee.

- (7) a. Jon etorri da. (Hualde & Ortiz de Urbina 2003)
Jon come AUX.3A
‘Jon has come’
b. Jon etorri **duk**.
Jon come AUX.3A.2M.ALLOC
‘Jon has come.’ (to a familiar, male addressee)
c. Jon etorri **dun**.
Jon come AUX.3A.2F.ALLOC
‘Jon has come.’ (to a familiar, female addressee)

Miyagawa (2012) analyzes allocutive marking as ϕ -feature agreement, because it is in complementary distribution with person agreement on the auxiliary. Crucially, according to Hualde & Ortiz de Urbina (2003, 243), allocutivity is ‘strictly a main clause phenomenon’ (though they mention that, in certain regions, younger speakers allow allocutive forms in completive clauses).

Japanese *-mas*. The Japanese verbal particle *-mas* conveys the speaker’s politeness toward the addressee and the formality of the utterance situation.

- (8) Peter-wa sushi-o tabe-**mas**-i-ta. (Japanese)
Peter-TOP sushi-ACC eat-MAS-DEC.PAST
‘Peter ate sushi.’

It cannot be embedded as standard indirect discourse (Miyagawa 2012, 21).⁴

- (9) Hanako-wa [dare-ka kuru/*ki-**mas**-u ka] sitte i-mas-u.
Hanako-TOP who-NOM come/come-MAS-PRES Q know MAS-PRES
‘Hanako knows who is coming.’

We are not the first to notice the similarities between the speech style particles of Korean, allocutive agreement in Basque and Japanese *-mas*. Antonov (2015, 59–60) noted it, too. What we want to emphasize is the striking restriction on their distribution (already noted by Miyagawa 2012 for Basque and Japanese): the fact that all three of these utterance-oriented markers are ‘main clause phenomena’.

1.3. THE INTERLOCUTOR-ADDRESSEE

Our analysis of content-oriented and utterance-oriented markers hinges on a distinction within the general, pre-theoretic concept of ‘addressee’. We need to separate utterances that are used with a specific addressee, on the one hand, and those that have a non-specific or generic addressee, or no addressee at all, on the other. It is especially revealing to look at imperatives when trying to understand what it is for a sentence to have or lack a specific addressee. Consider the imperative in 10; it is most likely to be used in a context with a specific addressee.

- (10) Please, have some tea!

In contrast, consider a sign in front of a monkey exhibit at a zoo with the words in 11; it is not directed at a specific individual, and we might say that it has a generic addressee.

- (11) Do not feed the monkeys!

(Of course 10 can also be used without a specific addressee, and 11 can be used with one; we are using the examples to evoke nature contexts for each.)

⁴As Harada (1976) notes, *-mas* can occur in certain non-matrix contexts like adverbial clauses. However, according to Miyagawa (2012) it cannot typically occur in a complement clause. He quotes Harada (1976): ‘[t]he few complement constructions that do permit *-mas* to occur are interpretable, without exceptions, as “direct discourse”.’ These include the complements of ‘say’, ‘report’, ‘exclaim’ introduced by the non-factive quotative complementizer *to*. We do not discuss them here, but simply note that the restrictions on embedding make *-mas* different from content-oriented markers.

We characterize the difference between 10 and 11 in terms of the notion of an INTERLOCUTOR. In 10, we understand that a particular speaker and addressee are interlocutors of one another within a particular communicative interaction. In 11, in contrast, we understand a meaning in which the speaker (or author) is not interacting with his or her addressee(s) as an interlocutor. The addressee is merely the individual(s) towards whom the prohibition is targeted or directed, namely anyone who comes to view the exhibit. We refer to an addressee who is an interlocutor of the speaker as an INTERLOCUTOR-ADDRESSEE. When an utterance does not have an interlocutor-addressee, either its addressee is understood as generic or non-specific, or it has no addressee at all.

As we will see, there are often important grammatical differences between sentences that are used with an interlocutor-addressee and those that are used without one. For example, as pointed out by Palmer (2001, 114), in many languages a nonfinite or nominalized clause is used to express imperative-like meaning in the absence of an interlocutor. In Italian such imperatives employ the infinitival form of the verb, rather than the imperative form. The examples below are taken from a set of school rules.

- (12) Negli armadi o negli scaffali **disporre** in basso i materiali più pesanti.
 in-the closets or in-the shelves put.INF in low the materials more heavy
 (Italian)

‘In closets and shelves, place the heavier materials in the lower areas.’

German also uses the infinitive, as in the following example from Truckenbrodt (2006).

- (13) Bitte von der Bahnsteigkante **zurücktreten**. (German)
 please from the edge.of.the.track step.back.INF
 ‘Please step back from the edge of the track!’

Though English can use the normal imperative form in the absence of a specific addressee, as in 11, it also allows a nonfinite form, the gerund.⁵

- (14) No **feeding** the monkeys!

We do not give a syntactic or semantic analysis of 12-14 in this paper, but the differences between such sentences and ordinary imperatives suggest that there are structural differences between sentences used with and without an interlocutor-addressee. In Section 2 we will show that the type of politeness marked by the speech style particles in Korean involves the relation between the speaker and an interlocutor-addressee (not a generic or non-specific addressee), and propose that there is a special syntax associated with the interlocutor-addressee.

⁵Notice that the English gerund can only be used in this way when negative; a positive form is not possible, *#Feeding the monkeys!* As is well known, negative imperatives are often syntactically different from non-negative ones, and the contrast we see in English is presumably related to this broader difference (e.g., Rivero & Terzi 1995; Zanuttini 1997; Han 1998; Zanuttini & Portner 2003; Han & Lee 2007; Kaufmann 2012).

1.4. OVERVIEW OF THE ANALYSIS

Our analysis has a syntactic component and a semantic/pragmatic component. Within the syntax, we propose a functional projection, the cP, which can be present in root but not in embedded clauses. Taking a perspective similar to that of Haegeman & Hill (2013), we argue that material in c encodes ‘politeness’ meanings that involve social relations between the speaker and interlocutor. Crucially, c is the syntactic position for utterance-oriented markers.

The hypothesis that cP can be present in root but not in embedded clauses makes intuitive sense. The root sentence is the unit of utterance, and embedded clauses are only uttered as part of it; thus it might seem natural that properties of the utterance context can only be expressed in the root clause. The idea would be that we incorporate certain types of meanings in the last stages of deriving a root sentence’s interpretation because there they have ‘access to the discourse context’ through a process that applies to complete utterances only. We believe that something like this is true, but unless it is expressed more precisely, we cannot understand the apparent exceptions, such as the fact that content-oriented markers of politeness, which incorporate similar meanings, are not restricted to occurring in root clauses.

The semantic component of our analysis begins with the idea that the grammatical forms under investigation relate in a special way to the social relationship between the speaker and interlocutor. For example, the meaning of a formal speech style particle or *V*-form pronoun does not simply say that the speaker and interlocutor are in a formal relationship, but actively or ‘performatively’ serves to establish the relationship as formal. We model the grammatically relevant aspects of this relationship in a new component of the discourse context, the PARTICIPANT STRUCTURE, and provide a dynamic pragmatic analysis that shows how the use of a grammatical marker of politeness affects the participant structure and ultimately the interlocutors’ common ground understanding of the nature of their interaction. Our pragmatic model builds on a multidimensional semantic framework that draws on previous theories of honorifics and pronouns, like Potts & Kawahara (2004).

At the syntax-semantics interface, the forms that performatively affect the participant structure in this way are associated with the c position. This connection suggests that the unembeddability of cP ultimately comes down to the type of meanings that are encoded there. In pursuit of this intuition, we propose that utterance-oriented markers (realized in c) cannot be embedded because their meanings are incompatible with the semantic processes associated with sentential complementation. In contrast, content-oriented markers are not instantiations of c. We propose that they indicate social relations by being dependent on c in the root clause. In order to incorporate these ideas into linguistic theory in a more precise way, we build on proposals about sentential embedding from Chierchia (1984) and about pronouns from Baker (2008) and Kratzer (2009).

Although we focus on the syntax and semantics of the interlocutor-addressee in this paper, it is clear from the literature that a very similar range of issues arises concerning the speaker. For example, some languages make a distinction in politeness among first person pronouns (e.g. Thai, McCready 2014), and honorifics typically mark the relation between

the speaker and an entity to be honored. It would be productive to undertake a more extensive study of the speaker in syntax and semantics, and to build more explicit connections to existing work on the expression of speaker, addressee, and other individuals relevant to the speech act in syntax (Speas 2004, Sigurðsson 2004, Bianchi 2006, Giorgi 2010, Sigurðsson 2014, Miyagawa 2012, Haegeman & Hill 2013, Hill 2014, Heim et al. 2014, Zu 2013, 2016, 2018, a.o.).

2. SPEECH STYLE PARTICLES IN KOREAN

In this section we examine a group of Korean sentence final particles traditionally called ‘speech style particles’. They express clause type, the relation that holds between speaker and addressee, and the formality of the utterance situation. Interestingly, some of them can be embedded while others cannot. We will show that the key to understanding the restrictions on embedding lies in whether or not they express the relation between the speaker and interlocutor-addressee. This finding leads us to draw a new distinction among the elements traditionally classified as speech style particles in Korean: we argue that some convey information about both clause type and the speaker-interlocutor relation, while others convey information about clause type only. Once we make this distinction, their distribution becomes much clearer.

2.1. OVERVIEW OF SPEECH STYLES IN KOREAN

Korean exhibits a rich system of speech styles. There is no agreement on their exact number: while some linguists identify as few as three or four (Kwon 1992; Nam 2001), a commonly held view is that there are six: formal, polite, semiformal, familiar, intimate, and plain (Martin 1992; Pak 2008; Sohn 1999; Suh 1996). They are exemplified in 15.

- (15) a. Inho-ka choysen-ul ta ha-ess-**supnita**.
 Inho-NOM best-ACC all do-PAST-DEC. FORMAL
- b. Inho-ka choysen-ul ta ha-ess-**eyo**.
 Inho-NOM best-ACC all do-PAST-DEC.POLITE
- c. Inho-ka choysen-ul ta ha-ess-**o**.
 Inho-NOM best-ACC all do-PAST-DEC.SEMIFORMAL
- d. Inho-ka choysen-ul ta ha-ess-**ney**.
 Inho-NOM best-ACC all do-PAST-DEC.FAMILIAR
- e. Inho-ka choysen-ul ta ha-ess-**e**.
 Inho-NOM best-ACC all do-PAST-DEC.INTIMATE
- f. Inho-ka choysen-ul ta ha-ess-**ta**.
 Inho-NOM best-ACC all do-PAST-DEC.PLAIN
 ‘Inho did his best.’

The formal style (or deferential style) is generally used to express deference to an interlocutor, e.g., a high official, a professor, or one's employer or superior, in formal situations. The polite style is used to express politeness toward the interlocutor in a situation that is not formal. The semiformal style is restricted to a special register, predominantly used by older male speakers, and is gradually disappearing. The familiar style is also associated with a special register, predominantly used among older male speakers who are not close, and is often adopted by parents-in-law talking to a son-in-law. The intimate style (or half-talk style) is most commonly used among family members and close friends. It indicates a close relationship between the interlocutors and can be intermixed with the polite speech style and the plain speech style. The plain style is typically used by adults to children, by older siblings to younger ones, by children among themselves, and by adults in a close relationship. However, unlike the other speech styles, the plain speech style can also be used in contexts that lack a specific interlocutor-addressee, such as written texts (e.g. newspapers, professional expositions, and personal diaries). In these contexts, in fact, only the plain speech style can be used (Martin 1992, Sohn 1999), a restriction that leads us to view it as different from the other speech styles.

Speech styles exhibit an interesting restriction: clauses in the formal, polite, semiformal, familiar and intimate style cannot be embedded, across clause types (see 16a, for the formal speech style). Only the plain style can occur in a complement clause (cf. 16b).

- (16) a. *Inho-ka sensayngnim-kkey [choysen-ul ta ha-ess-**supnita**-ko]
 Inho-NOM teacher-to best-ACC all do-PAST-DEC.FORMAL-COMP
 malhayss-ta.
 said-DEC.PLAIN
- b. Inho-ka sensayngnim-kkey [choysen-ul ta ha-ess-**ta**-ko]
 Inho-NOM teacher-to best-ACC all do-PAST-DEC.PLAIN-COMP
 malhayss-ta.
 said-DEC.PLAIN
 'Inho told the teacher that he did his best.'

Hence, the plain speech style is unique in that (a) it can be used in contexts that lack a specific interlocutor-addressee and (b) it can be used in a complement clause, across clause types. In the next subsection we examine the special status of the plain speech style particles.

2.2. THE PLAIN SPEECH STYLE

The sentences in 17 are traditionally classified as being in plain speech style. Note that the interrogative and the imperative clause have two distinct particles for this speech style.⁶

⁶The imperative plain style particles have phonological variants: *-ala* occurs after a verbal stem with the final *-a/o* vowel and *-ela* elsewhere; *-la* alternates with *-ula* when preceded by a consonant. There are also a number of vowel contractions in the Korean examples, but we will not discuss these in detail here.

- (17) a. Inho-ka choysen-ul ta ha-ess-**ta**. (declarative)
 Inho-NOM best-ACC all do-PAST-DEC.PLAIN
 ‘Inho did his best.’
- b. Inho-ka choysen-ul ta ha-ess-**(nu)nya/ni?** (interrogative)
 Inho-NOM best-ACC all do-PAST-INT.PLAIN
 ‘Did Inho do his best?’
- c. Choysen-ul ta ha-**la/ela!** (imperative)
 best-sc acc all do-IMP.PLAIN
 ‘Do your best!’

Plain speech style particles are said to occur in embedded clauses. However, embedded interrogatives only allow *-nya* (not *-ni*),⁷ and embedded imperatives only allow *-la* (not *-ela*).

- (18) Yumi-ka Inho-hanthey [choysen-ul ta ha-ess-**(nu)nya/*ni-ko]**
 Yumi-NOM Inho-to best-ACC all do-PAST-INT.PLAIN-COMP
 mwul-ess-ta.
 ask-PAST-DEC.PLAIN
 ‘Yumi asked Inho if he did his best.’
- (19) Yumi-ka Inho-hanthey [choysen-ul ta ha-**la/*ela-ko]** malha-ess-ta.
 Yumi-NOM Inho-to best-ACC all do-IMP-COMP say-PAST-DEC.PLAIN
 ‘Yumi told Inho to do his best.’

We argue that the difference in the embeddability of these particles reflects a difference in their syntactic and semantic properties: the ones that cannot occur in complement clauses mark both the speaker-interlocutor relation and clause type; whereas the ones that can occur in complement clauses mark clause type only.

Let us start with imperatives. As discussed in Pak (2008) and Pak et al. (2013), *-(u)la* is possible in root clauses only when the clause is uttered to people in general (and not to a specific interlocutor), as in rally or protest cries, in mottos, and in the Ten Commandments.⁸

⁷The *-nunya* form is used after a consonant-ending verbal stem and *-nya* is used elsewhere. Prescriptive grammar prohibits dropping the *-nu* morpheme in *-nunya*, but speakers drop it more often than not, i.e. *-nya* is used after both consonant- and vowel-ending stems. We will simply use *-nya* hereafter.

⁸An interesting use of *-(u)la* can be found in the king’s speech in Old Korean. An official command would be expressed with *-(u)la*, even when it was directed at particular individuals:

- (i) Motwu tul-**ula!**
 everyone listen-IMP.PLAIN
 ‘Everyone listen!’
- (ii) Ku coyin-ul tangcang teyllye o-**la!**
 that offender rightaway bring come-IMP.PLAIN
 ‘Bring the offender right this moment!’

- (20) a. Na-lul ttala-o-**la!** (Rally cry)
 I-ACC follow-come-IMP
 ‘Follow me!’
- b. Cengcikha-**la!** (Class motto)
 honest-IMP
 ‘Be honest!’
- c. Todwukcil ha-ci mal-**la.** (from the Ten Commandments)
 steal do-CI NEG-IMP
 ‘Do not steal.’

In contrast, *-ela* must be used when talking to a specific person. For example, if a student misbehaves and a teacher is scolding him, *-ela* (realized as *-ala*) is the only possible form.

- (21) Na-lul ttala-o-**#la/ala!** (...) Cengcikha-**#la/ala!**
 I-ACC follow-come-IMP (...) honest-IMP
 ‘Follow me!’ (...) ‘Be honest!’

This shows that the two forms are not in free variation: *-ela* marks clause type and conveys information on the speaker-interlocutor relation (hence requiring an utterance context with an interlocutor). In contrast, *-(u)la* only marks clause type; therefore it can be used in the absence of an interlocutor. In fact, it cannot be used when an interlocutor is present (except in very special circumstances, such as the King’s speech mentioned in footnotes 8 and 10).

Turning to interrogatives, here too we argue that the two particles *-ni* and *-nya* are not in free variation, but differ in whether or not they convey information on the speaker-interlocutor relation. As noted by many scholars, only *-nya* can be used in contexts where there is no specific interlocutor, such as self-directed and/or rhetorical questions, or in writing (Brown 2011; Brown & Yeon 2015; Lee 1991; Sohn 1999, a.o.), as shown in 22.⁹ In contrast, *-ni* can be used when a question is directed to a specific person, as in 23. In particular, it is felicitous in root clauses when directed to an interlocutor who is younger and close to the speaker, as it is argued to carry a connotation of softness and closeness, expressing intimacy (cf. Brown 2011; Choo 2005; Lee & Ramsey 2000; Cho 2005; Han 2002; Park 2006, a.o.).¹⁰

Grammatically, this individual is not treated as an interlocutor-addressee; presumably this is because no subject is deemed worthy of being an interlocutor of the king. (The king would use a different style in private conversations.)

⁹There is also another particle, *-(nu)nka*, which is often used in newspaper articles, poems, academic publications and personal essays. While we do not fully understand this particle, we note that it can never occur in reported questions, i.e., in the clausal argument of ‘say’ or ‘ask’, though it can occur in other embedded contexts, e.g. in the clausal argument of ‘wonder’ and ‘curious’. The fact that it occurs in some embedded contexts suggests that it is not an utterance-oriented marker and hence does not express information about the relation between the speaker and addressee.

¹⁰That *-nya* can be used in sentences lacking an interlocutor-addressee is supported by the fact it was used in the king’s speech in Old Korean (similarly to the *-(u)la* particle in imperatives in the king’s commands).

- (22) a. Onul nalssi-ka way ilehkey coh-**nya**? (talking to oneself)
 today weather-NOM why like.this good-INT.PLAIN
 ‘Why is the weather so good today?’
- b. Changco-**nya**, cinhwa-**nya**? (in writing)
 creation-INT.PLAIN, evolution-INT.PLAIN
 ‘Is it creation or evolution?’
- (23) Choysen-ul ta ha-ass-**ni**? (to an interlocutor)
 best-ACC all do-INT.PLAIN
 ‘Did you do your best?’

As we saw in 18, *-nya* can be embedded, while *-ni* cannot.

These observations lead us to make the following generalizations:

- Particles that mark only clause type can occur in complement clauses.
- Particles that convey information on the speaker-interlocutor relation cannot.

The particle *-nya* might seem somewhat problematic for these generalizations: while it can simply be a marker of clause type, as in the cases just discussed, it can also occur in a question directed to a specific person, thus conveying information on the speaker-interlocutor relation. We suggest that there are two homophonous forms of *-nya*: one used in the presence and one in the absence of an interlocutor.

We can also distinguish two plain speech style forms for declaratives, exhortatives, and promissives. Restricting the discussion to declaratives, we see that *-ta* is commonly used in forms of writing that do not have an interlocutor-addressee, like newspaper articles, professional journals and personal diaries, as in 24. However, it can also be used in sentences with an interlocutor-addressee, as in 25.

- (24) Cinan 2 wel 4 il lwusu skhelli-nun atul nollen-ul yengwenhi
 last 2 month 4 day Ruth Scully-TOP son Nolan-ACC forever
 ilh-ess-**ta**.
 loose-PAST-DEC.PLAIN
 ‘Last Feb. 4, Ruth Scully lost her son Nolan forever.’
 (<http://news.donga.com/Main/3/all/20170422/83991718/1>)
- (25) Inho-ya, na o-ass-**ta**.
 Inho-VOC, I-NOM come-PAST-DEC.PLAIN
 ‘Inho, I came.’

-
- (i) Way kuli ha-yess-nunya/*ni?
 why like.that do-PAST-INT.PLAIN
 ‘Why did you do that?’

We propose that declaratives also have two homophonous particles, one used in sentences with an interlocutor-addressee and the other in sentences without.

In sum, though traditional classifications view all the particles discussed as plain style particles, we argue that a distinction must be drawn between those that are purely clause typing particles and those that convey information on the speaker-interlocutor relation (in addition to clause type), which are true speech style particles.

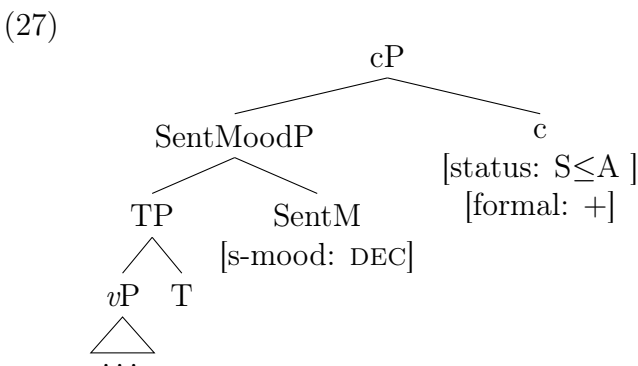
2.3. DISTINGUISHING CLAUSE TYPING PARTICLES AND SPEECH STYLE PARTICLES

We view clause typing particles as the overt realization of a feature of a functional head, the Sentence Mood Phrase (SentMoodP), which encodes clause typing information (Ahn & Yoon 1989, a.o.). There are several proposals concerning the exact position of SentMoodP, especially in relation to Rizzi's (1997) articulated CP (cf. Roberts 2004; Ginsburg 2009, a.o.). What is clear is that the head SentM is higher than TP and lower than the head with the embedding complementizer *-ko*. Because all clauses in Korean, whether root or embedded, have a clause typing particle, we assume that all clauses have a clause typing feature. For the same reason, the clause typing feature must not encode illocutionary force.

We view speech style particles as distinct from clause typing particles: they realize the clause typing feature as well the features that express information on the speaker-interlocutor relation and on the formality of the utterance situation. For example, *-supnita* in 26 conveys that the clause is declarative, the interlocutor is socially higher and/or older than the speaker, and the situation is formal.

- (26) Hoyuy-lul cal machi-ess-**supnita**.
 meeting-ACC well finish-PAST-DEC.FORMAL.
 '(I/we) finished the meeting well.'

We propose that speech style particles are in *c*.



The head of *cP* in 27 has the features STATUS, which conveys the social relation between speaker and interlocutor, and FORMAL, which specifies whether or not the situation is formal. We assume that the clause typing feature in SentM and the features of *c* are spelled

out as a single particle. In the case of 26, for example, they are spelled out as *-supnita*.¹¹

Building on Kim-Renaud & Pak (2006), we suggest that the status feature has values that represent an ordering (or hierarchical) relation ($<$, \leq , $=$, \geq , $>$) between speaker (S) and interlocutor-addressee (A). As for formality, we assume that it is simply a binary feature (+ or $-$). Different combinations of these feature values result in different morphological realizations as exemplified in 28.¹²

- (28)
- [status: $S \leq A$], [Formal: +], [s-mood: DEC] \rightarrow *supnita* (formal)
 - [status: $S \leq A$], [Formal: $-$], [s-mood: DEC] \rightarrow *eyo* (polite)
 - [status: $S \geq A$], [Formal: $-$], [s-mood: DEC] \rightarrow *e* (intimate)

Our assumptions about the STATUS feature capture the fact that the particles that encode status cannot be used in the absence of a specific interlocutor. If there is no individual to serve as the A argument, a relation like $S \leq A$ cannot hold, and so a particle that expresses status cannot be chosen. In an informal sense, we can say that these particles ‘mark’ the presence of a specific interlocutor–addressee, but this effect is really a byproduct of their main semantic function, marking the status relation between speaker and interlocutor. In principle, a similar reasoning could be applied to the S argument, but we provisionally assume that all utterances have speakers, in the relevant general sense.

As mentioned, clause typing particles can occur in embedded contexts, while speech style particles cannot. In Section 4, we propose a semantic explanation of this restriction. In syntactic terms, this means that SentMoodP can be a complement of the embedding complementizer, C, while cP cannot.

- cP cannot be embedded as a complement of C.

In sum, in this section we have proposed as follows.

1. Korean has sentence final particles that only convey information about clause type. We call them CLAUSE TYPING PARTICLES and analyze them as the realization of a feature in the head of SentMoodP. They are used in root clauses that are not addressed to a specific interlocutor and in complement clauses.

¹¹An anonymous reviewer asks whether cP is necessarily higher than SentMoodP. As far as our analysis in this paper goes, it is not: SentMoodP could dominate cP. Doing so would allow us to decompose *-eyo* into *-e* and *-yo*, and derive their linear order directly; but it would make it more difficult to connect *c* to related proposals in the literature, like those discussed in Section 5.3.

¹²The way in which status and formality are used in specific contexts of utterance can be complex. The feature values we propose here are based on traditional descriptions (Martin 1992; Pak 2008; Sohn 1999; Suh 1996, a.o.). However, it is possible that additional meaning components will ultimately be required. For instance, in their normal use, $S \leq A$ of the formal speech style represents a hierarchical relation between the speaker and addressee; the speaker is either equal or socially lower or younger than the addressee. However, in a very formal context such as a business meeting between two companies, for instance, the participants use the formal speech style to each other regardless of their age or social positions. This is because the formal speech style can be used to express deference. We go into some more detail on such uses of the speech style particles in Section 3.

2. Korean also has sentence final particles that convey information about both clause type and the speaker-interlocutor relation. We call them `SPEECH STYLE PARTICLES` and analyze them as the realization of `c`. They must be used in root clauses that are addressed to a specific interlocutor and cannot occur in complement clauses.

Before we conclude this section, let us ask why speech style particles are required in Korean whenever there is a specific interlocutor-addressee. We assume that this follows from a sociopragmatic principle that we might label `MAXIMIZE PROPRIETY`: in Korean, it is required to indicate the social relation between speaker and interlocutor whenever possible. Therefore, when a clause typing particle that does not indicate this relation is used, listeners may infer that there is no interlocutor. In other languages, the absence of a specific addressee may or may not be so explicitly indicated. Italian and German express instructions and orders given to anyone to whom they might be relevant with the infinitival form, as we saw in 12 and 13. In English, the use of a gerund signals the lack of an interlocutor-addressee in issuing prohibitions, as shown in 14. We will not further discuss the subtleties of these forms across languages, but rather assume that Korean, with its rich array of sentence final particles and strong requirement to express social relations using them, provides a good initial case study.

3. THE SEMANTICS OF GRAMMATICAL MARKERS OF POLITENESS

We have proposed that meanings involving the relation between the speaker and interlocutor-addressee are expressed in `c`, and that clauses containing `c` cannot be embedded as an argument. These ideas allow us to capture the distribution of utterance-oriented markers of politeness as elements that realize `c`. In this section, we develop a framework for representing the type of politeness meaning expressed in `c`. This goal is important in its own right, and will also contribute to developing a system that explains on a semantic basis why `cP` cannot be embedded. As part of this project, we need to provide answers, if only provisional ones, to the following questions.

- What is the interpretation of elements that project `c`?
- What semantic processes are involved in embedding a clause as a complement?

We will address the first question here, and the second in Section 4. In this discussion, we will focus on declarative clauses only, but it is our intention to eventually integrate the analysis of politeness markers into a more general theory that applies to other clause types as well.

3.1. THE PRAGMATICS OF DECLARATIVES

We begin with our background assumptions on the semantics and pragmatics of declarative clauses. Because our topic concerns the representation of the speaker and the

addressee-interlocutor, it is important that we use a system that handles indexical pronouns appropriately. We build on recent work that assumes that the content of root sentences in discourse is best modeled as multiply centered propositions, as in 29 (Ninan 2010a,b; Stalnaker 2014).

(29) The content of a declarative sentence S is a set of tuples $\langle x, y, t, w \rangle$.

The x and y coordinates of these tuples represent candidates for the identity of the speaker and addressee-interlocutor, respectively.¹³

We begin by outlining a model of the context with two components, the participant sequence and the context set (but note that the participant sequence will be elaborated into the ‘participant structure’ below). The context set plays the role familiar from Stalnaker’s work, but is modeled as a multiply-centered proposition, as this will allow us to treat assertion as intersection in the standard way (Stalnaker 1974, 1978 and esp. Stalnaker 2014, p.218). The participant sequence lists the participants in a standard order, so that the speaker and addressee of a given utterance can be aligned correctly with the positions in the tuples that comprise the context set.

(30) The **context** c is a pair $\langle P, cs \rangle$, where:

- i. the **participant sequence** P is a n -tuple of individuals ($n \geq 1$);
- ii. cs is the **context set**, a set of tuples $\langle x, y, t, w \rangle$

Ninan assumes that the participant sequence is a pair, the speaker and addressee, but because we allow for contexts in which there is no specific interlocutor, we allow it to have the speaker only. For each tuple $\langle x, y, t, w \rangle$ in the context set, x could be the first member of P and y the second member of P , if there is a second member. (In a context with no addressee, we assume that the second member of each tuple is a dummy element which could not be the addressee.)

Assertion is a proposal to reduce the context set by intersecting it with the content of the sentence being uttered.

(31) For any utterance u of a declarative sentence S , $c + u =$

- i. $\langle P_c, cs' \rangle$, where $cs' = cs_c \cap [[S]]$, if the speaker of $u = P_1$.
- ii. $\langle P_c, cs' \rangle$, where $cs' = cs_c \cap switch([[S]])$, if the speaker of $u = P_2$.

(P_1 is the first member of P , and for any proposition p , $switch(p)$ is the proposition that results by reversing x and y in every tuple in p .) We can see how these ideas work with an example:

¹³A more familiar notion of proposition as a set of worlds or world-time pairs would be compatible with all of the main claims of our analysis, but would require a rethinking of the alignment principle 38. Ninan and Stalnaker have deeper motivations for the use of centered worlds propositions, involving the analysis of self-directed content in communication.

$$(32) \quad [[I \text{ love } you]] = \{ \langle x, y, t, w \rangle : x \text{ loves } y \text{ in } w \text{ at } t \}$$

Assuming that 32 was uttered by the first member of the participant sequence, a successful assertion of this sentence removes from the context set any sequences $\langle x, y, t, w \rangle$ in which x does not love y in w at t .

3.2. THE SEMANTICS OF C

We now discuss the semantics of the category c , focusing on Korean. Our goal is to explain how a sentence marked with a speech style particle indicates social relations between individuals in the context, in addition to expressing the type of propositional meaning just discussed. The central question that must be answered before we can give a precise theory is how we can best model these social relations, the ‘politeness meaning’.

One simple and appealing idea is that the politeness meanings encoded in c are presuppositions. For example, we could think of 17a as follows, where point (i) needs to be made more precise.

- (33) $[[\text{Inho did his best } [S \leq A]]]$ = the function f from contexts to propositions such that:
- (i) $f(c)$ is only defined if c is a formal context in which the speaker is socially equal or inferior to the interlocutor-addressee, and
 - (ii) $f(c)$ = the proposition that Inho did his best, when defined.

Assuming that the context c is one in which the required social relations hold, the semantic content in (ii) can be used to update the context in the way specified by 31.

While a presuppositional analysis of this kind is plausible, we do not feel that it fully captures the pragmatics of politeness particles. First, it does nothing to explain the unembeddability of speech style particles. Presupposition triggers can obviously be embedded and their presuppositions project according to well-known rules. At a more conceptual level, the presuppositional approach fails to capture the ways in which speech style particle do not only reflect established social relations, but are used to negotiate, create, and maintain those relations. For example, by using a polite speech style particle in Korean, one ensures that the interlocutor is or becomes treated as a social equal or superior to the speaker.¹⁴ We see this facet of politeness marking in situations where there is a shift in speech style, such as 34.

- (34) Mom: Inho-ya, onul sihem cal poass-**ni**?
 Inho-VOC.INTIMATE, today test well done.INT.INTIMATE?
 ‘Inho, Did you do well on the test today?’

¹⁴An anonymous reviewer also raises the issue of why politeness marking would be required at all, in a context in which it is mutually assumed that the relevant social relations hold. This is not really an issue for the presuppositional analysis, as it can be seen as an instance of Maximize Presupposition (Heim, 1991).

Inho: Ney, emma. 100 cem pat-ass-**eyo**.
 Yes, mom. 100 point receive-PAST-DEC.POLITE.
 ‘Yes, mom. I received 100.’

Mom: Wa! Cengmal? Cham calhayss-**eyo**!
 Wow! Really? Indeed well.done-DEC.POLITE
 ‘Wow! You did really well!’

In this conversation, mom switches from the intimate speech style in her first utterance to the polite speech style in her second. This change of speech style implies that mom’s final turn does more than simply assert ‘Inho did well’ in the context. As a result of the use of a polite speech style particle, Inho, the interlocutor-addressee, is understood (obviously as a pretense) to be socially equal or superior to his mother and is respected as an individual, which in turn amplifies the effect of the compliment. This effect is, in a sense, ‘performative’, since it does not inform Inho of the social relation between him and his mother, but it actively produces (temporarily, as a pretense) the elevated status of the interlocutor-addressee. The performative nature of this meaning will be important in explaining why utterance-oriented markers cannot be embedded, and while it has been proposed that the presuppositional meaning of demonstratives can have a similar social function by Acton & Potts (2014), an analysis of the effects seen in 34 and other examples below could only be attributed to an extensive and, in our view, insufficiently constrained use of accommodation.

An alternative approach is to analyze politeness marking as conveying a kind of expressive meaning. Potts’ (2005) framework of conventional implicature has been applied to such puzzles as epithets, evidentials, quotation, and honorifics (Potts & Kawahara 2004; Potts 2007; McCready 2014, to appear). Moreover, expressives have been claimed to be performative (Potts 2007, Portner 2007), a feature that would help us capture the intuition that politeness markers create and maintain social relations. We will build on many of the insights of the theory of expressive meaning (see Potts 2007 for an overview).

While we gain much from the theory of expressive meaning, we depart from its usual implementation in two important way: (i) we do not adopt the mechanisms that allow for expressives to be interpreted locally in embedded positions, putting them in ‘storage’ to have a discourse effect at the global utterance level. And (ii) we do not follow the strategy of representing the content of politeness markers with continuous real values. With respect to (i), in Section 5 we argue that the politeness marking on content-oriented markers is not interpreted in place, but rather in the root cP. This point is essential to our account of the different distribution of utterance-oriented and content-oriented markers. Concerning (ii), we represent the relation between the speaker and interlocutor-addressee both within the context set, to capture the factual status of social relations, and in a component of the discourse model, using a simple ordering structure rather than the real-valued index used in some expressive systems. Before moving on, we will briefly explain how the theory of expressive meaning has been applied to politeness, and then motivate our departure from it with respect to point (ii).

In their brief analysis of honorific marking in Japanese, Potts & Kawahara (2004)

introduce a new honorific component into their definition of the context. In their system, a context is a 5-tuple $\langle \textit{speaker}, \textit{location}, \textit{time}, \textit{world}, \textit{hon} \rangle$, of which the crucial component *hon* is a set of triples of the form $\langle \textit{individual}_1, n, \textit{individual}_2 \rangle$. Within the members of *hon*, *n* is a real number in $[0, 1]$ representing the ‘emotion’ of *individual*₁ towards *individual*₂. Potts & Kawahara’s general idea is that honorifics constrain the range of values in *hon*. For example, subject honorification of *Sam* requires that $\langle \textit{speaker}, 1, \textit{Sam} \rangle$ be among the values in the context. This requirement is stated as a presupposition: $[[\textit{Sam-HON}]]$ ^c is only defined if $\langle \textit{speaker}, 1, \textit{Sam} \rangle \in \textit{hon}_c$. (They also sketch a dynamic treatment where presupposition and assertion are defined in terms of a set of contexts of the kind just described.)

McCready gives a similar analysis of honorifics and politeness pronouns in Japanese and Thai. He proposes that politeness is represented in a component of the discourse context, the POLITENESS DOMAIN $\langle P, S, F \rangle$, where *P* represents ‘psychological distance’, *S* represents ‘social distance’, and *F* represents formality. In his system, these three components are combined into a single measure, the Global Register (an interval in $[0, 1]$), with which markers of politeness interact. McCready makes the important contribution of applying this theory of politeness marking to the first and second person pronouns in Thai. The polite first person pronoun *kraphǒm*, for example, both refers to the speaker and places a constraint on the Global Register, requiring it to be a subinterval of $[\cdot 8, 1)$. This amounts to saying that any context in which it is used has an extremely high overall politeness level.

Theories of the type developed by Potts & Kawahara and McCready are extremely interesting, and have served as the basis for important work on politeness and expressive meaning. However, we are not convinced that the kind of meaning encoded by markers of politeness needs to be represented in the way that they propose. We have two concerns about their approach. First, politeness meaning should be encoded within the context set in the same way as ordinary factual information, and not only as a distinct index or discourse component. Many of the contextual features involved in speech style marking are factual matters. Some of them are ordinary, concrete facts (like that the addressee is older than the speaker) while others are social facts (e.g. that the addressee is the speaker’s superior at work), and the use of particles in Korean needs to be connected to these facts. Of course, some social facts are not grounded in an obvious way in non-social facts, but we see no reason to doubt that they are nevertheless facts that hold among individuals in a world. For example, we can contrast the fact that the speaker is the addressee’s parent with the familiarity signaled by a *T* pronouns used between a customer and a store clerk. The former is connected in obvious ways to various concrete facts, while the latter is grounded in little more than the use of the pronouns themselves. Nevertheless, politeness marking must be sensitive to both of them, and we assume that they are to be encoded in the same way within the context.

Our second concern is whether speech style information is best modeled using a real-valued index or component of the context. While actual human relations of hierarchy, intimacy, and formality are complex and perhaps infinitely varied, their grammatical marking appears to be discrete, distinguishing only a small number of levels. Potts (2007) points out that real-valued indices like those he employs for honorifics would not be

appropriate for analyzing polite and familiar pronouns, where a simple two-way distinction is marked. The same point holds for speech style particles. In the Korean system, speech style particles distinguish only formality and binary hierarchical relations. Our pragmatic model should capture this simplicity. Of course, at the point where the semantic/pragmatic analysis of speech style markers is integrated into a broader theory of language where richer types of sociolinguistic and social information are described, we will need a theory of the relation between the simple grammatically encoded oppositions and the complex social world. However, in this paper we are focusing on what is encoded in the grammar, and so we propose a framework appropriate to explaining its structure.

In his brief discussion of German pronouns, Potts (2007) proposes non-numerical expressive indices of the form $\langle a \dagger b \rangle$ and $\langle a \ell b \rangle$ to model a formal or informal relation between a and b . This system is close to what is needed for speech style particles, but does not capture the essential role of hierarchy in the Korean system. We will therefore develop a model in which speech style particles have a performative meaning affecting a simple ordering structure that represents hierarchy among interlocutors.

In light of these considerations, we propose to analyze speech style and politeness as a performative dimension of meaning with effects both in the context set (the factual side) and in a separate ordering component of the discourse context. We begin by revising the definition of the context from 30, replacing the participant sequence with a PARTICIPANT STRUCTURE.

- (35) The **context** c is a pair $\langle P, cs \rangle$, where:
- i. the **participant structure** P is a triple $\langle J, O, h \rangle$, where
 - J is an n -tuple of individuals ($n \geq 1$), the **participants**,
 - O is an ordered set $\langle N, \prec \rangle$ with n members,
 - h is a function from J to subsets of N ;
 - ii. cs is the **context set**, a set of tuples $\langle x, y, t, w \rangle$

If we have two participants P_1 and P_2 , there will be two ‘ranks’ in O , N_1 and N_2 , ordered by \prec . (For convenience, we can use 0 and 1 for N_1 and N_2 , and $<$ for \prec ; with this, the similarities and differences with Potts’ analysis are apparent.) Then we represent a context where the first participant is socially below the second participant with $h(P_1) = \{N_1\}$ and $h(P_2) = \{N_2\}$.

The sincere use of a speech style particle counts as an attempt to establish a particular relation between the participants. To model this, we treat the semantic value of the status feature itself as a function of the same type as h , as in the following (assuming two participants).¹⁵

- (36) a. $[[[\text{status: S} \prec \text{A}]]] = h : h(P_1) = \{N_1\}$ and $h(P_2) = \{N_2\}$

¹⁵ P_1 is now the first member of J . To highlight the ‘performative’ nature of the particle, we could formalize the meaning of the status feature as an update function. For example, 36a would become $[\lambda c. \langle \langle J_c, O_c, \{ \langle P_1, N_1 \rangle, \langle P_2, N_2 \rangle \} \rangle, cs_c \rangle]$, if the speaker is P_1 .

- b. $[[[\text{status: S>A}]]] = h : h(P_1) = \{N_2\}$ and $h(P_2) = \{N_1\}$
- c. $[[[\text{status: S=A}]]] = h : h(P_1) = \{N_1, N_2\}$ and $h(P_2) = \{N_1, N_2\}$
- d. $[[[\text{status: S≤A}]]] = h : h(P_1) = \{N_1\}$ and $h(P_2) = \{N_1, N_2\}$

In the tradition of multidimensional semantic theories like Rooth (1992) and Potts (2005), the denotation of cP is an ordered pair $\langle \pi, p \rangle$, where π is the ‘politeness meaning’, the denotation of the status feature, and p is the propositional meaning, a set of tuples $\langle x, y, t, w \rangle$. These are indicated as $[[\phi]]^{\pi}$ and $[[\phi]]^p$, respectively. Now we can define the declarative update for cP.^{16,17}

- (37) For utterance u of a declarative cP ϕ , $c + u =$
- i. If the speaker of $u = P_1$: $\langle \langle J_c, O_c, h_{c'} \rangle, cs' \rangle$, where
 - $h_{c'} = [[\phi]]^{\pi}$,
 - $cs' = cs_c \cap [[\phi]]^p$
 - ii. If the speaker of $u = P_2$: $\langle \langle J_c, O_c, h_{c'} \rangle, cs' \rangle$, where
 - $h_{c'} = \text{switch}([[\phi]]^{\pi})$,
 - $cs' = cs_c \cap \text{switch}([[\phi]]^p)$

The effect of using the status feature on the participant structure is illustrated in Figure 1. In the figure, each circle represents the participant structure at one stage in the conversation, its gray ellipse represents the available ranks in O , P_1 and P_2 are the participants, and the arrows indicate the positions in O associated with each participant. The initial context, indicated by the leftmost circle, has no hierarchical relation between the two participants. Then the first participant P_1 uses a particle with feature $[S>A]$, creating a context where P_1 is understood to be superior to the interlocutor in the hierarchy relevant to the context. Then P_2 becomes the speaker and uses a particle with the feature $[S<A]$, expressing the same hierarchy between participants. Finally, P_1 speaks again, using a particle with $[S≤A]$, thereby expressing deference towards the addressee and modifying the relation.

Our analysis helps us understand two important properties of speech style particles: why they can only be used in a context with a specific interlocutor and why they must be used whenever that is the case. As to the first point, when there is no specific interlocutor, there

¹⁶In consideration of the length of this paper, we do not show how the propositional meaning is computed, but note the argument in Section 5 that second person pronouns are derived when a minimal pronoun is bound by c (and we assume a parallel treatment of first person pronouns). Thus, the x and y components of the tuples should be identified by having c abstract over the pronouns it binds. This perspective leaves open to some extent the precise treatment of root SentMoodPs (as used in rallies and the like). On the one hand, declarative SentMoodPs might denote sets of world-time pairs, not 4-tuples. This would make sense because they cannot contain personal pronouns as a result of lacking the projection, cP, which identifies the speaker and interlocutor. On the other, they might denote 4-tuples due to the presence of an operator other than c , perhaps one involved in the derivation of *de se* semantics in embedded clauses.

¹⁷*Switch* applied to a politeness meaning h exchanges the members of its domain. For reasons of space, we omit the complex versions of 36-37 for more than two participants.

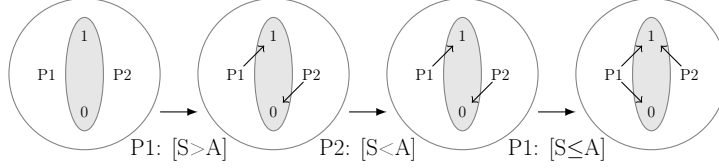


Figure 1: Updating the participant structure

is only one participant in the participant structure, and so the status feature, which indicates a relation over two participants, will not be defined. And as to the second, we can make the maximize propriety principle mentioned in Section 2.3 more precise. Maximize propriety states that, if there are two participants in the participant structure, the relation between them must be expressed if possible. In Korean, with its rich array of speech style particles and strong social conventions for determining the relevant relation, it is always possible to choose an appropriate marker, and so whenever there is a specific interlocutor, a speech style marker can and must be used.

Next we turn to the factual side of speech style particles. Suppose a conversation is about to begin between a grandparent and grandchild. The participant structure would not be able to have a relation with the child above the grandparent. There must be an alignment between the abstract relation indicated in the participant structure and the actual fact of the matter in the hierarchy between the speaker and interlocutor. We can encode this with an alignment principle.

- (38) **Alignment between participant structure and context set.** For every context c such that cs_c entails that there is a unique most salient social relation H involving the participants in the conversation (i.e. between x and y in w at t in all tuples in cs_c), the ordering assigned to the participants in the participant structure in c is compatible with H .

This principle implies that speech style particles correspond to the relation in the most relevant H (perhaps thereby changing which relation is considered most relevant). Recall that particles also differ in formality. This feature can now be modeled as a presupposition concerning which types of relations can be considered most relevant. For instance, the formal speech style is compatible with H being a relation between boss and employee, but not (normally) between parent and child. In contrast, as seen in 34, polite style can be used to mark a child’s position with respect to a parent. In other words, ‘formal’ means that the most salient hierarchy is a formal one.

In certain cases, the use of a speech style particle will not affect the context set. For example, the grandparent’s use of $[S>A]$ to a grandchild will not affect the context set, because the particle matches the established social relation. But in other cases, the use of the particle changes the context set.

We would like to highlight two ways in which the use of a speech style particle dynamically affects the context. In the first, the hierarchical relation between participants

is continually readjusted to convey deference. A good example is seen in 39, a conversation between Ms. Kim and her boss.

(39) B: Kim tayli, onul hoyuy ilceng-i ettehkhey toy-**pnika**?
 Kim tayli.TITLE, today meeting schedule-NOM how become-INT.FORMAL
 ‘Miss Kim, what is today’s meeting schedule?’

K: Ney, thimcangnim. onul 3 si-ey makheting hoyuy-ka
 Yes, boss. today 3 o’clock-at marketing meeting-NOM
 iss-**supnita**.
 exist-DEC.FORMAL.
 ‘Yes, boss. Today there is a marketing meeting at 3 o’clock.’

Both participants use the formal speech style, which is [+formal] with the status feature [S≤A]. On the boss’s part, this choice is perhaps surprising. However, the familiar speech style particle *-ney* which may be viewed as having [S>A, +formal] values is associated with a special register and is not normally used in office settings (unless the speaker is substantially older than the addressee). Moreover, the use of formal style serves a pragmatic function. In the boss’s question in 39 the [S≤A] relation relates not to the static boss-employee hierarchy, but rather participates in a convention in which each speaker seeks to afford the other’s respect, and it serves the immediate goal of mitigating the face-threatening act of asking a direct question. In other words, the boss is indicating (perhaps as a pretense) that he does not insist on his power over Ms. Kim, but rather treats her as having the interactionally ‘equal or higher’ position of deciding how and when to respond.

Another way in which the choice of particle may dynamically affect the context is when it helps determine which social relation is relevant. An example is in the following continuation of 39.

(40) B: Alkeyss-pnita. kuntey onul cenyek-ey yaksok iss-**e**?
 ok-DEC.FORMAL. by.the.way today evening-at plan have-INT.INTIMATE?
 ‘Okay. By the way, do you have any plans for this evening?’

K: Aniyo, eps-**supnita**.
 No. not.have-DEC.FORMAL.
 ‘No. I don’t.’

B: Yaksok epsумыen cenyek-ina kathi hal-**kka**?
 plan have.not.if dinner-or.something together do-INT(SUGGEST).INTIMATE?
 ‘If you have no plans, shall we have dinner or something?’

Here the boss moves to a non-formal speech style to indicate a closer, more personal relationship. This might be done, for example, because the boss is aiming to create an inappropriate level of intimacy, or for other reasons, such as because the boss is comforting a long-time employee in a difficult personal situation. The social relations normally assumed in the office (hierarchy softened by the convention of mutual deference) is

temporarily set aside, and a different (intimate) one is imposed as most relevant in the context.

4. WHY MARKERS OF POLITENESS ARE RESTRICTED TO ROOT CLAUSES

Now that we have developed an analysis of the semantic difference between clauses that are headed by *c* and those that lack *c*, we will proceed to discuss why only the latter can be embedded as a complement clause. We will build on the idea, which goes back to Rosenbaum (1967) and Kiparsky & Kiparsky (1970), that argument clauses are, in some respect, more ‘nominal’ than root or adjunct clauses. Our basic proposal is that a *cP* cannot have the nominal character required for a phrase to serve as one of the arguments of a lexical functor such as a verb. However, we wish to go beyond merely stipulating that *cP* is incompatible with nominal syntactic features and tie the restriction to the unique type of meaning introduced by *c*. Specifically, we aim to develop a system in which *cP*-clauses cannot be assigned nominal features because they do not have denotations in the semantic domain appropriate to nominal phrases. To put the matter simply: a *SentMoodP* (or, more generally, the relevant clausal unit in any language, e.g. *TP*) only has a propositional semantic value, its meaning can be represented as an individual, and so it can be embedded. In contrast, a *cP* has a non-propositional, performative meaning that cannot be represented as an individual, and as a result, a *cP* cannot be embedded.

We assume that embedding always involves *CP*, and that the *C* of an argument clause, such as *-ko* in Korean, introduces a [+D] feature that it shares with demonstratives and definite determiners. Thus, the *CP* of an embedded declarative is [+D]. In the semantics, we need to assign a meaning for the *CP* that is also appropriately nominal, and to this end we adopt the basic ideas of the semantic framework developed by Chierchia (1984). In his system, which builds on the work of Cocchiarella (1974, 1976, 1978, 1979, 1983), some semantic values outside of the domain of individuals are correlated with an individual by a ‘Fregean mapping correlate function’ *f*. For example, the property *run*, which would serve as the denotation of *run*, has an individual correlate *f(run)* (sometimes designated as *r*). Chierchia argues that the nominalization of a predicate, such as the gerund *running*, should be taken to refer to *r*.

- (41) a. [_{VP} *run*] ⇒ **run**
 b. [_{DP} *running*] ⇒ *f(run)* = **r**

As a referring expression, *running* can naturally serve as the argument of a predicate. The semantics of 42a is roughly 42b.

- (42) a. Running was fun for Mary.
 b. **fun(r,m)**

Within Chierchia’s system, predicates never take a possible-worlds proposition directly as argument, but rather take the individual correlate of such a proposition. While his work

focuses on infinitives and gerunds, he holds this commitment for finite complement clauses as well. For example, the reference of the complement clause *that Mary ran* would be the individual correlated with the proposition that Mary ran. Using the operator \cap to designate f (i.e. the logical form expression $\cap\alpha$ refers to the individual correlate $f([\alpha])$), the logical form of 43a is 43b.

- (43) a. It is nice that Mary ran.
 b. **nice**(\cap **past**(**run**(**m**)))

Chierchia also notes that not every type of meaning can serve as the argument of a predicate, not even with the help of a nominalization operation. For example, he assumes that adverbs and prepositions are never nominalized and so never function as the argument of a verb or other predicate. As Chierchia (1984, 66) notes, these restrictions can be captured by stipulating that the denotations of adverbs and prepositions do not have individual correlates.

It is helpful to sketch out how the composition works in a step-by-step manner. We propose that $C_{[+D]}$ corresponds in logical form to \cap .¹⁸ Its meaning is f and hence it maps the denotation of its complement (call it d) to its individual correlate (i.e. $f(d)$), provided that d has an individual correlate. As in 43, the denotation d of a declarative SentMoodP is simply a proposition, and it has an individual correlate $f(d)$. Hence a SentMoodP (or, more generally, the relevant clausal unit in any language, e.g. a TP) can be combined with $C_{[+D]}$ to produce a referring CP. A verb like *say* can then take this CP as argument. We illustrate the semantic analysis of 44 through a step by step translation into a logic of the type described above.

- (44) Mary said that it is raining.
 (45) a. $C_{[+D]} \Rightarrow \cap$
 b. [*SentMoodP* it's raining] \Rightarrow **rain**
 c. [*CP* $C_{[+D]}$ [*SentMoodP* it's raining]] $\Rightarrow \cap$ **rain**
 d. Mary said that it's raining \Rightarrow **say**(**m**, \cap **rain**)

These ideas suggest a way of thinking about the unembeddability of utterance-oriented markers. In contrast to the case with embedded clauses of category SentMoodP (or TP), we propose that the denotation d of a cP is not in the domain of f . In other words, after we compute the meaning of a sentence with an utterance-oriented marker of politeness, the result lacks an individual correlate. Therefore C cannot combine with cP — if we did combine C with cP, the computation would fail at the stage where f is applied to d . (A way to put this is to say that \cap cP is not well-formed.) Nor can a verb or adjective take cP as a complement directly, without the mediation of C, since by hypothesis such predicates only take individuals as their semantic arguments. In principle, we would only expect cP to

¹⁸C may have other functions as well, such as binding pronouns to produce a *de se* interpretation. We leave open whether multiple semantic functions are associated with a single element in syntax, or whether there are multiple operators in an extended CP domain.

be possible as a subordinate clause in constructions that do not require it to refer to an individual.¹⁹

This explanation of the unembeddability of utterance-oriented markers works at the level of the syntax-semantics interface, but it is worth asking if we can go further and understand why the restriction holds. Within our analysis, the meaning of cP has two dimensions: $[[\phi]]^p$, the propositional content, and $[[\phi]]^\pi$, the politeness meaning. The propositional content of a cP is the same as that of a SentMoodP; hence it is the presence of politeness meaning that prevents embedding.

What is it about politeness meanings that makes them different from ordinary meanings and could explain the lack of an individual correlate? As we analyzed them in Section 3.2, politeness meanings have two special properties. First, they are of a non-propositional type, functions from the members of J to ranks in O (see 36). So, cP may be unembeddable because values of this type lack individual correlates. This approach is expressed in 46.

- (46) No individual correlates of politeness relations: If a semantic value has a function from individuals in J to ranks in O as one of its dimensions, it lacks an individual correlate.

A second option builds on the idea that politeness meanings are performative, in that they create and maintain the ordering component of the participant structure. So, we might suggest that performative meanings lack individual correlates.²⁰

- (47) No individual correlates of performatives: If a semantic value has a performative dimension, it lacks an individual correlate.

Our analysis captures the performativity of speech style markers in the pragmatics, through the update rule 37 that affects the participant structure (it sets $h_{c'} = [[\phi]]^\pi$). The idea is that nominalization and embedding are impossible when a phrase has a meaning that triggers this update. But 37 also incorporates the ordinary update of

¹⁹We are open to the possibility that there are exceptions to Chierchia's principle that all argument clauses are nominalized. Recall that Japanese utterance-oriented markers can be embedded in contexts described as 'direct discourse' (Harada 1976; Miyagawa 2012). Perhaps in such contexts the embedded clause maintains its propositional type, and interacts with the reported context or the discourse context in the same way as a root clause would interact with the discourse context. Similar issues arise when we try to understand other instances in which 'main clause phenomena' are embedded, for example embedded V2 and imperatives (see Aelbrecht et al. 2012).

²⁰Hypothesis 47 can be compared to the common assumption among linguists and philosophers that illocutionary force and 'speech acts' cannot be embedded (see Portner 2018 for discussion). Though the intuition is similar, note that we are not specifically endorsing that view, for several reasons. First, it has occasionally been proposed that elements that encode force can be embedded (e.g. Krifka 2014). Second, the grammatical constructions to which the restriction has been applied, such as imperatives and V2 declaratives in German, are embeddable under certain circumstances. Thus, if the embedding of these constructions is limited by the way they encode force, the restriction is only applicable some of the time. Finally, in previous work we have argued against the common view that force is encoded in the syntax of clause types (Zanuttini & Portner 2003, Portner 2004, Zanuttini et al. 2012). If this is right, a restriction on embedding force has little work to do.

assertion, adding $[[\phi]]^p$ to the context set. So, if 47 is on the right track, we would need to distinguish meanings used to update the participant structure from meanings used to update the context set. Only the former block embedding. Is this distinction reasonable? The participant structure plays a role in the pragmatic theory quite differently from the context set: it links the centered worlds in the context set to the actual speaker and interlocutor of the conversation, and it models the social relation between these individuals. Thus, it seems reasonable to assume that performative politeness meanings have a special status within the semantic system as well.

In sum, we propose that speech style particles cannot be embedded because their meanings are different from ordinary compositional semantic values. We have explored two intuitions, 46 and 47, for what the crucial feature of their meanings is, but once we get into the details, they turn out quite similar. Our view is that cPs lack individual correlates and cannot be embedded because they have a non-propositional meaning that affects the non-propositional component of the context which models social relations, the participant structure.

5. PRONOUNS THAT ENCODE THE SPEAKER-ADDRESSEE RELATION

We now turn our attention to second person pronouns that mark politeness. They are similar to speech style particles in the meanings they convey, but different in that they can be embedded. We will develop an analysis that aims to capture both this similarity and this difference. In the taxonomy developed in Section 1, politeness pronouns are content-oriented markers. Other content-oriented markers, such as honorifics, are not our main focus here, as they do not involve the speaker-addressee relation.

Many Indo-European languages have second person pronouns that show the so-called ‘familiar’ vs ‘polite’ distinction (‘*T/V* distinction’), that is, they convey information about the relation between the speaker and the referent of the pronoun. For example, in Italian the pronoun *tu* ‘you’ (familiar) is typically used to refer to an interlocutor who is socially lower than the speaker (e.g., an adult talking to a child) or closely related to the speaker (like a family member or friend). In contrast, the pronoun *Lei* ‘you’ (polite) is typically used to refer to an interlocutor who is socially higher than the speaker (e.g. a superior at work) or an adult who is not a family member or friend. Moreover, it has been noted that *T* forms are also used to express, and even create, a sense of solidarity between speaker and interlocutor.²¹ For example, adults who are not family members or friends might use *tu* at a service encounter (like ordering coffee at a café) to avoid remarking on any disparity in terms of age or social hierarchy and to establish instead a sense of parity in social status.

Like the speech style particles of Korean, these politeness pronouns convey information on the relation between speaker and addressee, and presuppose a particular interlocutor as addressee. However, unlike the speech style particles of Korean, these pronouns can occur both in root and in embedded clauses. Why?

²¹There is an extensive literature in sociolinguistics on this topic, including work by Brown & Gilman (1960), Delisle (1986), Silverstein (2003), Clyne et al. (2009), and Norrby & Wide (2015).

One hypothesis could be that the grammar of a language encodes politeness in two distinct and independent ways: (i) through speech style particles that are realizations of *c* and cannot be embedded; and (ii) through noun phrases that have a politeness feature and can be embedded. But this hypothesis is not satisfactory, as it fails to ask whether these two strategies might be different surface manifestations of a single underlying property of the grammar. Moreover, it is incompatible with a deep semantic explanation of the unembeddability of politeness markers of the type that we developed.

The alternative hypothesis – the one we will pursue – is that the meaning under discussion is always encoded in the grammar of a language through *c*, which cannot be embedded for semantic reasons. Why is it, then, that content-oriented markers can occur in embedded clauses while utterance-oriented markers cannot? We argue that it is because content-oriented markers of politeness are not the realization of *c*, but rather acquire the status feature from *c* via binding. In the next section we develop our analysis for politeness pronouns focusing on Italian.

5.1. THE SYNTAX AND SEMANTICS OF POLITENESS PRONOUNS

We pursue the hypothesis that the politeness expressed by utterance-oriented and content-oriented markers stems from a single encoding of this type of meaning in the grammar.

- Information on the relation between speaker and interlocutor is encoded in *c*.

The main difference between the two classes of elements that convey this type of meaning concerns their syntactic distribution: utterance-oriented markers cannot be embedded, whereas content-oriented markers can. In order to account for this difference, we propose the following.

- The speech style particles of Korean are the overt realization of *c*.
- Politeness pronouns (content-oriented markers of politeness) are bound by *c*.

The difference in their distribution stems from being the realization of *c* versus being bound by *c*. Speech style particles (and utterance-oriented markers of politeness more generally) cannot occur in embedded clauses because they are the realization of *c*, which is restricted to root environments. In contrast, politeness pronouns do not require that *c* occurs in an embedded clause because they can be bound by it across clauses. Though they acquire the status feature through agreement as a result of binding, the feature is interpreted in *c*, at the root level.

Our hypothesis builds on two independently motivated existing proposals: that pronouns can be bound, and that their binder can be an abstract operator. Let us see how. First and second person pronouns are traditionally seen as referential elements that pick out the speaker and the addressee, respectively. However, recent literature has pointed out that

they can also have a bound reading. Consider the following examples from Kratzer (2009), modeled after Partee (1989, fn.3).

- (48) a. I_i'm the only one around here who can take care of my_i children.
b. Only you_i eat what you_i cook.

48a implies that I can take care of my children but no one else in the relevant set can take care of their children, and 48b that you eat what you cook but no one else eats what they cook (X doesn't eat what X cooks, Y doesn't eat what Y cooks, etc.). The bound pronouns in these examples don't pick out a fixed referent; rather, their referents range over a set of individuals, suggesting that, in these contexts at least, there must be some mechanism that makes it possible to ignore their person feature. Kratzer (2009) refers to these cases as 'fake indexicals'. She shows that a distinction needs to be drawn between locally bound and long distance bound cases, and argues that the locally bound fake indexicals enter the derivation with an incomplete set of features (as 'minimal pronouns') and acquire the features that they are missing from the operator that binds them. We will not discuss fake indexicals, but will extend Kratzer's idea that certain pronouns are born as minimal pronouns, i.e. with an incomplete set of features.²²

In an independent line of research, aimed at characterizing the structural conditions on person agreement across syntactic categories, Baker (2008) shows that first and second person agreement is fundamentally different from other types of agreement, and that there are important restrictions on where it can be found (for example, never on adjectives). Based on these observations and on evidence from bound pronouns like those in 48, he concludes that first and second person agreement is always dependent on an operator-variable relation. He proposes that agreement in person features (whether on a

²²Kratzer (2009) distinguishes two types of bound variable indexicals, involving local and long distance cases. The local cases are born with a 'defective feature set' and are locally bound by v which functions as a standard lambda-binder; they receive their person feature from the binder. This part of her analysis is compatible with our proposal. The long distance bound indexicals are born with their features fully specified (just as unbound indexicals are, in her system) and are bound by a v that functions as an indexical context-shifter. Her analysis of the long distance cases would be incompatible with our proposal, since we think that pronouns always gain their person features through agreement. We note, however, that her analysis as it stands does not work. Her system allows a bound variable reading in sentences like (i), where one is not available.

- (i) Mary is the only one who knows somebody who understands your paper.

(Here, the v of *knows* should be able to have the feature [2nd] and serve as a context shifter for *your*.) One way to fix this problem, suggested by Angelika Kratzer (p.c.), would be to require that the long distance binding v only occurs in a clause whose subject has the same person feature. This predicts that sentences like (ii) should require both occurrences of *your* to be bound, since the binder would be the v associated with *you gave*, and both are in its scope.

- (ii) Only you gave your mother the books Lisa recommended to your librarian.

However, (ii) has an interpretation where *your (mother)* has a strict reading but *your (librarian)* is a bound variable. This mixed reading should not be allowed under the suggested alternative. In sum, Kratzer's paper correctly shows that there are important differences between local and long distance indexical binding, but more work remains to be done on the subject. We thank Angelika Kratzer for discussion of this matter.

pronoun or on a functional head) is not the result of the standard Agree relation, but rather of operator-variable agreement. The binder of a first or second person pronoun is an element that designates the speaker or addressee, respectively, which is merged in the left-periphery of the clause and acts as an operator; when this type of binding occurs, there is also agreement in phi-features between the binder and the bindee.

Baker (2008, pp.121-134) provides an extensive discussion of the reasons for thinking that the person features of a first or second person pronoun are the result of a binding relation, and not of an Agree relation. He shows that they are not sensitive to the kind of locality constraints that characterize Agree (phase condition, case-valuation, and intervention condition). Rather, a different locality condition holds on first and second person pronouns: they must be bound by the closest *c*-commanding Speaker or Addressee operator, or by the closest element that refers to the speaker or addressee. We will not review this evidence here, due to space constraints, but refer the reader to Baker’s discussion.

While Baker invokes binding from an operator, Kratzer argues for binding by a functional head. The two proposals are fundamentally the same, and only appear to differ because of different notions of syntactic vs semantic binding: where syntacticians speak of a subject as syntactically binding a reflexive, for example, semanticists treat this relation as mediated by an abstraction operator. Given this, we formalize Baker’s operator-variable relation as in 49.

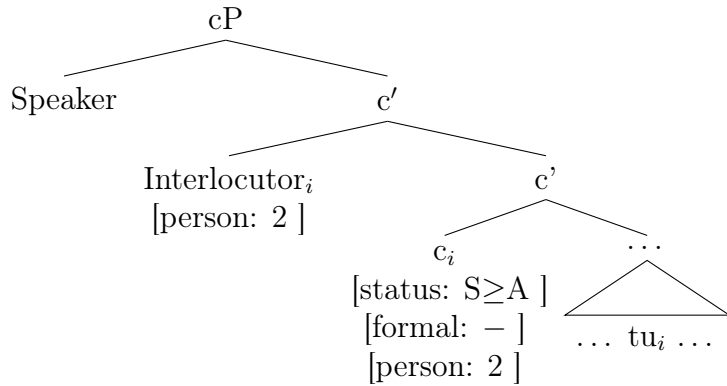
- (49) Operator-variable agreement: In the binding configuration $[XP_\phi[F_i[YP \dots x_i \dots]]]$, the variable x agrees in features with the syntactic binder XP . The agreement relation between XP and x is mediated by the functional head F that serves as a λ -abtractor.

We derive second person pronouns in a way that closely follows Kratzer’s and Baker’s analyses.

- Sentences that require a specific interlocutor contain a null element, Interlocutor, which designates the interlocutor-addressee.
- Interlocutor merges in the specifier of the functional head *c*.
- Pronouns designating the addressee are bound elements and acquire their features through operator-variable agreement.
- When a pronoun is syntactically bound by Interlocutor, mediated by *c* as a lambda abtractor, it refers to the interlocutor-addressee and reflects *c*’s feature values.²³

²³With the Interlocutor syntactically represented as an argument in the structure, we can see that the *A* in the status feature stands for the same entity as Interlocutor. In more formal terms, the correct representation of the value of the status feature is $\lambda i.S > i$, where i saturated by the interlocutor. However, we will continue to use expressions like $S > A$ for clarity.

(50)



In Italian and English, unlike in Korean, we don't see an overt morphological realization of *c*. However, we argue that *c* is present whenever there is an interlocutor-addressee. We assume that in Italian *c* has the features [status] and [formal], though in contemporary speech it is the formality feature, expressing the nature of the speaker-interlocutor relation, which usually determines pronoun choice. When a pronoun that refers to a single individual is bound by Interlocutor, and *c* has the value [−formal], it is spelled out as *tu* (or *te*, *ti*, depending on case), a 2nd person singular form. In contrast, when it is bound by Interlocutor, and *c* has the value [+formal], it is spelled out as *Lei* (or *la*, *le*), a pronoun that is formally 3rd person, singular and feminine but refers to an interlocutor of either gender. (There are some cases in which [status] plays a role, and it was a more important factor in earlier stages of the languages in much the same way as discussed by Delisle 1986 for German.) This is not unique to Italian, of course. For example, in German the familiar form of the pronoun denoting a single interlocutor is *du*, 2nd person singular, while the polite form is *Sie*, formally 3rd person plural feminine; in French the alternation is between *tu*, 2nd person singular, and *vous*, 2nd person plural. Though we can't provide a detailed discussion of the mapping between the abstract features and the features on the pronouns, we view these alternations as resulting from the different values of the features of *c*.²⁴

Since we are analyzing pronouns via an operator-variable relationship, it is interesting to consider intervention effects, the hallmark of such relationships. When a noun phrase that refers to the interlocutor intervenes between the pronoun and the operator in [Spec,cP], we expect that noun phrase to bind the pronoun, because it is the closest potential binder. We thus predict that the pronoun will exhibit the ϕ -features of the noun phrase, and not those that come from binding by the Interlocutor operator mediated by *c*. This is indeed what we find. Consider the French example in 51, a statement addressed to the President by an aide: if the pronoun were bound directly by *c*, it should be realized as *votre*. But in this configuration, only the pronoun *sa*, a 3rd person singular form, is grammatical.

- (51) M. le Président devrait appeler sa/*votre mère. (French, V. Hacquard p.c.)
 Mr. the president should call-INF his/*your mother

²⁴See Collins & Postal (2012), Collins (2014), and references therein on the interesting issue of the mismatch in person features of so-called 'imposters', noun phrases that refer to the interlocutor (or to the speaker) but have a 3rd person form.

‘Mr. President should call his mother.’

This pattern follows from the fact that the subject, which is 3rd person singular, is the closest binder for the pronoun.

With this system in place, we can now understand the distributional difference we aim to account for: speech style particles cannot be embedded, while pronouns can be. We argue that this stems from the fact that speech style particles are the realization of *c*: as such, they are restricted to root environments because a clause headed by *c* cannot be the complement of a predicate, as we explained in Section 4. In contrast, pronouns that pick out the interlocutor are not the realization of *c*: they are simply bound by *c*. This binding can take place across clauses; when a minimal pronoun occurs in an embedded clause, it can be bound by *c* (as long as no other potential binder intervenes); when it is, it acquires the status feature through operator-variable agreement. The status feature is not interpreted where the noun phrase is merged with the rest of the structure; rather, it is interpreted in *c*. This is why second person pronouns can occur in both root and embedded clauses.

5.2. PREDICTIONS

Our analysis makes two clear predictions that can be tested. First, because it views second person pronouns as dependent on *c*, it predicts that they cannot occur in clauses that lack *c*. This prediction is borne out. In Italian, a second person pronoun is impossible on a sign that is meant for anyone who might be looking for a parking spot; a third person pronoun must be used, as we see in 52. The second person pronoun is only possible if the parking rule is expressed through an imperative, which is a form that implies a direct interlocutor, as we see in 53.

(52) Parcheggiare solo nel ***tuo**/**proprio** spazio. (no specific addressee)
park.INF only in-the your/own spot
‘Parking allowed only in one’s own spot.’

(53) Parcheggia solo nel **tuo**/***proprio** spazio. (specific addressee)
park.IMP only in-the your/own spot
‘Park only in your own spot.’

Similarly, in Korean, second person pronouns cannot be used in utterances that lack a specific interlocutor, just as speech style particles cannot. For example, *ne* ‘you’ cannot occur in sentences lacking *cP*, i.e. those directed to a generic addressee, as in 54. However, a lexical noun such as *cengpwu* ‘government’ can be used in protest cries as exemplified in 55.

(54) ***Ne-nun** cinsil-ul palkhi-la.
you-TOP truth-ACC reveal-IMP.PLAIN
‘Reveal the truth!’

(55) **Cengpwu-nun** cinsil-ul palkhi-la.
government-TOP truth-ACC reveal-IMP.PLAIN

‘Government should reveal the truth!’

English allows the pronoun *you* in sentences lacking a specific interlocutor. An example is 56, on its generic reading with ‘generic *you*’ (it can also be used with a specific addressee).

(56) No swimming in your jeans.

We set aside the analysis of generic uses of the second person pronoun.²⁵ The difference between English, on the one hand, and Korean and Italian, on the other, may have to do with the relatively richer politeness information expressed by particles and pronouns in the latter languages, or it may show that the use of the gerund to issue a prohibition when there is no specific interlocutor is different in some way from the uses of the Korean and Italian forms we are comparing it with.

Let us now turn to the second prediction. In our proposal, Interlocutor is an argument of *c* and, when *c* binds a variable in the clause, its features are passed on to that variable. We therefore predict that, in Korean, speech style particles and second person pronouns always show the same value for the status feature. This is indeed the case. For example, *ne* can co-occur with the intimate speech style particle *-e/a*, because they both convey that the speaker has higher social status or is the same age as the interlocutor; but it cannot co-occur with the formal speech style particle *-supnita*, which conveys that the speaker is either socially lower or younger than the interlocutor.

- (57) a. Ne pap mek-ess-e?
you meal eat-PAST-DEC.INTIMATE
‘Did you eat?’
b. *Ne siksaha-si-ess-supnikka?
you have.meal-HON-PAST-DEC.FORMAL
‘Did you eat?’

In other words, the speech style particle and the pronoun need to express the same type of

²⁵ We are not sure if generic pronouns are associated with *c* and the Interlocutor argument in the same way as pronouns that refer to a specific interlocutor. There are many other complexities in the semantics of politeness pronouns that we set aside. For example, the interaction among shiftable indexicality, politeness, and specificity has not been studied in any detail, but we note that pronouns that express politeness can sometimes be shifted, for example in Amharic (Ruth Kramer, p.c.).

- (i) Meriem to Ruth

Almaz lä-Girma *irswo* bät’am rädʒdʒim näwot al-äcc. (Amharic)
Almaz to-Girma you.POL very tall are.2POL say-3FS.S

‘Almaz said to Girma you (pol.) are very tall.’

The pronoun *irswo* indicates Almaz’s politeness (not the actual speaker Meriem’s) towards the referent of *irswo*, either Ruth (unshifted) or Girma (shifted). In terms of our analysis, this means that the S component of the status feature must shift, while the reference of the pronoun (and the A component of the status feature) optionally shifts.

relation between speaker and interlocutor-addressee.²⁶

5.3. RELATION TO OTHER WORK

We are not the first to argue that the notions of speaker and addressee, and the relation between them, are sometimes encoded in syntactic structure. Ross (1970) and other advocates of the performative hypothesis like Sadock (1974) argued that each sentence contains a syntactic representation of the discourse participants. Building on Hale & Keyser (1999), Speas & Tenny (2003) suggest that the pragmatic roles of discourse participants correspond to certain structural positions within what they call a SpeechAct Phrase; for them the configuration of speaker and hearer within this projection gives rise to the illocutionary force of a sentence. Haegeman & Hill (2013) build on Speas and Tenny's proposal that speaker and hearer are part of an articulated syntactic projection, though they dissociate it from the expression of force. In further work (Haegeman 2014; Hill 2007a,b, 2013, 2014) they propose a different articulation of the speaker and addressee projections in order to analyze vocatives and discourse particles expressing the speaker-addressee relation. Miyagawa (2012) adopts Haegeman and Hill's revisions of Speas and Tenny's proposal in his analysis of allocutive agreement in Souletin Basque and the politeness marker *-mas* in Japanese. Zu (2013, 2015, 2018) adopts a Hearer Phrase and a Speaker Phrase to account for agreement with discourse participants in Jingpo, a Tibeto-Burmese language. Among much other work along these lines, we also mention Kim-Renaud & Pak (2006) and Heim et al. (2014) as highly relevant to our proposals.

Our empirical domain is different, but our analysis is inspired by the insights of this body of work. We do not adopt the label SpeechAct Phrase in order to make it clear that (like Haegeman and Hill) we do not view this layer of structure as encoding illocutionary force. We also do not adopt the label Hearer or Addressee for the head *c*, because we give it a meaning that encodes the relation between the speaker and the interlocutor, and not simply features of the interlocutor. We choose 'c' as an abbreviation for 'context': we view cP as the layer of structure that interfaces with the context of utterance (in contrast to CP, which is the interface between a matrix and an embedded clause).

Some of the work just cited has forcefully argued that the layer that interfaces with the context has a more articulated structure. We have not presented cP that way, because we wanted to focus on the syntactic representation of the relation between speaker and interlocutor-addressee abstracting away from other complexities that have been discussed in the literature. But our proposal is compatible with a more finely articulated architecture of this layer of syntactic structure. For example, it is possible that speaker and interlocutor operators are merged in the specifiers of two distinct heads (always, or in some cases) and that the features of these two heads end up in one position as a result of a syntactic or morphological operation, like head movement, spanning or the like.

²⁶One could adopt a pragmatic explanation for these last facts: given that the pronoun and the particle encode the same feature, all tokens in a sentence would have to have the same value, since otherwise the utterance would place incompatible requirements on the context. Even on this view, it is significant that they do encode the same feature.

6. POSSIBLE EXTENSIONS

Our analysis focuses on Korean speech style particles and politeness pronouns, but as we've emphasized, there are several other grammatical patterns that express the relation between speaker and interlocutor-addressee or other individuals. We have briefly discussed two of the most well-studied of these in section 1, the Japanese politeness particle *-mas* and honorifics. Both appear to be closely related to the elements we focus on here, but pose particular, interesting challenges: for *-mas*, the fact that it can be embedded in some environments (though not freely), and for the honorifics, the fact that they relate to individuals other than the speaker and addressee. We would now like to comment briefly on two other cases that can help us better understand the grammatical encoding of the speaker-interlocutor relation.

6.1. POLITENESS MARKERS IN BASQUE

Basque is particularly interesting in the context of our work because, similarly to Korean, it has both utterance-oriented and content-oriented markers of politeness. Both convey information on the relation between speaker and interlocutor in a way that strengthens our claim that they are different manifestations of a single status feature. Moreover, they differ in their distribution in exactly the way that our analysis predicts.

Let us start with the content-oriented markers of politeness: second person pronouns. Basque has a so-called 'familiar' singular form (*hi* 'you') that, according to Hualde & Ortiz de Urbina (2003, 151), 'is generally obligatory (a) between siblings, and (b) between close friends of the same sex and roughly the same age, particularly those who have grown up together'. It can optionally be used with children, and when teasing, cursing or abusing (people or animals). Basque also has another form for the second singular pronoun (*zu* 'you'), which is used with addressees other than the ones just mentioned; as one of our reviewers points out, it is the discursively unmarked form.²⁷ Basque also has utterance-oriented markers of politeness, namely allocutive morphemes, which mark an addressee that is not an argument of the verb and convey information on its status with respect to the speaker. We already saw an example in 7, where an allocutive morpheme changes the shape of the auxiliary and conveys that the speaker is on familiar terms with the addressee (someone that the speaker could refer to with the familiar pronoun *hi*). As stated explicitly in Hualde & Ortiz de Urbina (2003), the allocutive marker only conveys information about the relation between speaker and addressee, so the sentence does not change in propositional content or information structure. What is interesting for us is that allocutive markers like those in 7 express the same pragmatic information that the familiar

²⁷Hualde & Ortiz de Urbina (2003, 151) describe *zu* as the pronoun that is used to refer to an interlocutor who is an adult of the opposite sex, a spouse, an older person, parents, a person of higher status, God, and animals. They also point out that some Eastern and Southern varieties of Basque have more forms for the second person pronoun, expressing an intermediate level of intimacy, or a markedly superior status of the interlocutor. Interestingly, Oyharçabal (1993) points out that Eastern Basque dialects exhibit more forms for the allocutive morpheme, too: in addition to the form that expresses that the speaker is in familiar terms with the interlocutor, they also have a form that expresses the speaker's deference towards the interlocutor.

form of the pronoun conveys.

The fact that the allocutive marker and the familiar pronoun convey the same relation between speaker and addressee calls for a unified analysis, centered around *c*. We can view an allocutive morpheme as the morphological realization of *c*, or as a clitic that is associated with the Interlocutor argument merged in the specifier of *c*. Moreover, along the lines of our analysis of politeness pronouns in Italian, we can view a familiar second person pronoun in Basque as a noun phrase that is in a binding and agreement relation with *c*.

If the allocutive marker on the auxiliary is the morphological realization of *c*, or of the argument that merges with *c*, it follows that it cannot be embedded: the status feature on *c* expresses a kind of performative meaning that prevents it from being an appropriate complement of a higher predicate. In contrast, we expect familiar second person pronouns to be able to occur in embedded contexts: they are syntactically bound by Interlocutor, via the *c* head; but their status feature is interpreted on *c*, and not on the pronouns. Indeed, second person pronouns can occur in embedded clauses.

Viewing the allocutive morpheme as a manifestation of *c* is in accord with several recent analyses, which suggest implementations that are slightly different from one another but always involve a layer of structure higher than TP. For example, Oyharçabal (1993) suggests that it should be seen as a realization of *C*. Miyagawa (2012) builds on this proposal, and on Speas & Tenny (2003) and Haegeman & Hill (2013), which argue that the left-periphery of the clause contains a layer of structure that brings in information about the speaker and addressee. In this framework, Miyagawa views the allocutive morpheme as the head of the functional projection Speech Act Phrase; this head probes, finds as its goal the HEARER argument, and enters an Agree relation with it. Haddican (2015), addressing the morphological properties of allocutive markers, proposes that we view them as clitics and think of them as related to vocatives ('vocative clitics'). His analysis views them as associated with the functional head Addressee, which he takes to be in the left periphery of the clause, higher than *T* and lower than *Fin*. These analyses share the intuition that the allocutive markers are in a functional head in the high periphery of the clause, above TP – the same intuition that we express by analysing the speech style particles as the head *c*.

In sum, without going into the details of the proper analysis of Basque allocutive marking, the fact that it expresses the same kind of information as the second person pronouns supports our proposal that content-oriented and utterance-oriented markers should have a unified analysis.²⁸ Moreover, allocutive markers have been given syntactic analyses that strongly resemble the one we gave to speech style particles in Korean. This suggests that the claim that the relation between speaker and interlocutor is expressed in a status feature in *c* is valid beyond the case of Korean.

²⁸We thank an anonymous reviewer for helpful comments on this point, and for mentioning that further support comes from diachrony: several dialects have lost the familiar/colloquial distinction in pronouns and agreement, and this correlates with loss of allocutive marking.

6.2. VOCATIVES

Vocatives are another way in which a grammar can express the relation between speaker and addressee. Focusing on English, Zwicky (1974) distinguishes CALLS (e.g. **Cabby**, *take me to Carnegie Hall!*), used to get the addressee’s attention, and ADDRESSES (e.g. *You must realize*, **honey**, *that we can’t keep meeting like this*), used to ‘maintain or emphasize the contact between speaker and addressee’, and d’Avis & Meibauer (2013), Hill (2013), Haegeman & Hill (2013) and Slocum (2016) all confirm that, in the languages they examine, addresses establish or reinforce the relationship between speaker and addressee. These descriptions of the functions of vocatives fit well with our semantic/pragmatic analysis; calls set the interlocutor ‘slot’ in the participant structure to the person called, and addresses highlight the social relation between speaker and interlocutor. Interestingly, Slocum (2016, 25) classifies the address terms that occur in vocatives in categories that are reminiscent of those that have been proposed for Korean speech style particles: (a) Formal, polite (*Sir, Mr. President, Your Honor, Professor Finer*); (b) Informal, positive face (*buddy, mom, bro*, nicknames and pet names); (c) Informal, neutral (*Paul, Mr. Kline*); (d) Informal, dismissive (*chick, kid*); (e) Informal, pejorative (*asshole, jerk, bitch*).

Vocatives always refer to the addressee, and in this they resemble politeness pronouns. Indeed, the most extensive recent analyses of vocatives contain the same components we have used for the analysis of politeness pronouns: a person feature and a feature that relates speaker and addressee. Hill (2013, 2014) argues that vocatives are headed by a functional head endowed with a second person feature and a feature [inter-personal], and Slocum (2016) proposes that a vocative phrase is headed by a D that has a second person feature. For Hill and Slocum, these features are present in the vocative phrase. For us, the person feature is present on both the c head and on the Interlocutor argument; the [status] feature is present on c, and while we have not considered whether it is present on Interlocutor as well, if Hill is correct, at least we can say that it is present in that position when it hosts an overt vocative. In light of these proposals, we suggest that we view a vocative phrase as the overt counterpart of the Interlocutor argument that we have postulated to be present in all clauses with a specific addressee.

Support for viewing vocatives as merged in the specifier of c comes from their distribution: Slocum (2016) convincingly argues that the projection that hosts vocatives can only occur in root clauses. When vocatives occur in sentence-medial (rather than sentence-initial) position, the word order is the result of movement. She follows Taglicht (1984) in taking the location of the vocative to mark the edge of the focus domain and proposes that what follows the vocative represents new information and is in FocusP, whereas what precedes it represents old information and is in a topic phrase. Even when a vocative appears to be in an embedded clause, it is really in the matrix clause.²⁹ Viewing

²⁹Previous proposals associate vocatives with the high periphery of the clause, differing on their exact position. Some scholars view them as being structurally higher than the projections that make up CP. For example, Moro (2003), Espinal (2013) and Hill (2014) view them as merged in a position higher than CP (Hill points out that they occur higher than complementizers in Romanian main clauses, and higher than structures with V2 in West Flemish). Other studies propose that vocatives are not structurally higher than all the projections that make up CP. For example, Slocum (2016) analyzes vocatives as merged in a

vocatives as an overt version of the abstract Interlocutor argument allows us to straightforwardly capture the fact that they are restricted to matrix clauses: cP cannot be the argument of a higher predicate, as we have discussed, because it introduces a performative, non-propositional meaning.

Korean vocatives lend empirical support to the idea that vocatives merge with *c*. They carry special particles (*-ya*, *-ssi*, *-nim*, etc.) that convey the same type of information as speech style particles. In fact, a vocative particle and a speech style particle can co-occur only if they express the same value for the speaker-interlocutor relation. For example, only the vocative particles *-ssi* or *-nim* can co-occur with the polite speech style particle *-eyo*. This is because *-ssi*, for example, and *-eyo* have the same value for the status feature. The fact that the values for the status feature must be the same on the vocative and on the speech style particle falls out from viewing the vocative as the argument that has merged in the specifier of *c*. The vocative particle *-nim* is compatible with both the polite and the formal speech styles, which differ in the value of [formal] but not [status]. Kim-Renaud & Pak (2006) also claims that Korean vocatives are in a structural configuration where they agree with the speech style particle.

Finally, let us mention some theoretical support for the idea that vocatives merge with *c*. Haegeman & Hill (2013), Hill (2014), Haddican (2015) and Slocum (2016) all explicitly draw a connection between vocatives and allocutive agreement in Basque, pointing out that they both convey information about the relation between speaker and addressee. In fact, Haddican (2015) analyzes the allocutive agreement morphemes of Basque as vocative clitics. Reflecting on the similarities between his proposal and ours, he suggests (personal communication) that we could view the markers of allocutive agreement in Basque as clitics that are merged in the specifier of our cP as part of a ‘big DP structure’, where the overt morpheme is a clitic and the associated noun phrase is a null argument, our Interlocutor. This would capture the similarities with vocatives, and also account for why allocutive clitics do not allow clitic doubling (differing from all other clitics in Basque): they cannot co-occur with an overt co-referential DP because they co-occur with a covert coreferential DP, namely Interlocutor.

7. CONCLUSION

In this work we make a number of novel empirical contributions.

1. We emphasize the distinction originally made in Comrie (1976) and Harada (1976) between the two types of elements that express the social relation between the speaker and another individual, what we call utterance-oriented and content-oriented markers. We go beyond their discussions in observing that these elements differ in their syntactic distribution: utterance-oriented markers cannot be freely embedded, while content-oriented markers can be.

projection that is higher than FocusP but lower than some of the projections that host topic phrases.

2. We analyze the sentence final particles of Korean and draw a distinction between markers of speech style and markers of clause type. We show that whenever there is a marker of speech style (i) the sentence requires the presence of an interlocutor and (ii) it cannot be embedded. Conversely, when a clause typing marker is present, (i) the sentence does not require a specific interlocutor and (ii) it can be embedded.
3. Focusing on Italian, we show that pronouns that express the relation between speaker and addressee (content-oriented markers) require a specific interlocutor in the same way as the speech style particles of Korean (utterance-oriented markers) do.

We also make contributions to the theoretical understanding of the syntactic and semantic representation of the addressee and of the speaker-addressee relation.

1. We argue that sentences used with a specific interlocutor (what we call an ‘interlocutor-addressee’) and those used with a generic addressee or no addressee at all are syntactically different. Only the former have a functional layer that we label cP.
2. We propose that the relation between speaker and interlocutor-addressee is expressed via a feature [status] on the functional head *c*, the head of cP.
3. We develop a semantic and pragmatic analysis of the status feature and the contribution of cP to the interpretation of a sentence. Not only does it encode aspects of the social relation between speaker and interlocutor, but it also establishes those social relations in a designated component of the discourse context, the participant structure, and in the common ground.

Finally, we propose an account of why utterance-oriented markers cannot be freely embedded while content-oriented markers can.

1. We argue that cP cannot be the complement of a higher predicate, because of the type of meaning that it encodes.
2. We treat the utterance-oriented markers as the overt realization of *c*, thus explaining why they do not occur in embedded clauses.
3. Building on Baker (2008) and Kratzer (2009), we propose that Interlocutor is merged as a specifier of *c*, and we analyze content-oriented markers as bound by it. Since the status feature is spelled out on the pronoun but interpreted in *c*, we explain why content-oriented markers can be embedded.

REFERENCES

- ACTON, ERIC K., and CHRISTOPHER POTTS. 2014. That straight talk: Sarah Palin and the sociolinguistics of demonstratives. *Journal of Sociolinguistics* 18.3–31.
- AELBRECHT, LOBKE; LILIANE HAEGEMAN; and RACHEL NYE (eds.) 2012. *Main clause phenomena: New horizons*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- AHN, HEE-DON, and HANG-JIN YOON. 1989. Functional categories in Korean. *Harvard studies in Korean linguistics III: Proceedings of the 1989 workshop on Korean linguistics*, ed. by Susumo Kuno et al., 79–88. Seoul: Hanshin Publishing Company.
- ANTONOV, ANTON. 2015. Verbal allocutivity in a crosslinguistic perspective. *Linguistic Typology* 19.55–85.
- BAKER, MARK C. 2008. *The syntax of agreement and concord*. Cambridge: Cambridge University Press.
- BIANCHI, VALENTINA. 2006. On the syntax of personal arguments. *Lingua* 116.2023–2067.
- BROWN, LUCIEN. 2011. *Korean honorifics and politeness in second language learning*. Amsterdam: John Benjamins.
- BROWN, LUCIEN, and JAEHOON YEON. 2015. *Handbook of Korean linguistics*. Malden, MA: Wiley-Blackwell.
- BROWN, PENELOPE, and STEPHEN C. LEVINSON. 1987. *Politeness: Some universals in language usage*. Cambridge: Cambridge University Press.
- BROWN, ROGER, and ALBERT GILMAN. 1960. The pronouns of power and solidarity. *Style in language*, ed. by Thomas A. Sebeok, 253–76. Cambridge, MA: MIT Press.
- CHIERCHIA, GENNARO. 1984. *Topics in the syntax and semantics of infinitives and gerunds*. University of Massachusetts, Amherst dissertation.
- CHO, YOUNG-A. 2005. Gender differences in Korean speech. *Korean language in culture and society*, ed. by Ho-Min Sohn, 189–198. Honolulu: University of Hawai'i Press.
- CHOO, MI-HO. 2005. The structure and use of Korean honorifics. *Korean language in culture and society*, ed. by Ho-Min Sohn, 132–154. Honolulu: University of Hawai'i Press.
- CLYNE, MICHAEL; CATRIN NORRBY; and JANE WARREN. 2009. *Language and human relations: Styles of address in contemporary language*. Cambridge: Cambridge University Press.
- COCCHIARELLA, NINO. 1974. Fregean semantics for a realist ontology. *Notre Dame Journal of Formal Logic* 15.552–568.

- COCCHIARELLA, NINO. 1976. On the logic of natural kinds. *Philosophy of Science* 43.202–222.
- COCCHIARELLA, NINO. 1978. On the logic of nominalized predicates and its philosophical interpretation. *Erkenntniss* 13.339–369.
- COCCHIARELLA, NINO. 1979. The theory of homogenous simple types as a second order logic. *Notre Dame Journal of Formal Logic* 20.505–524.
- COCCHIARELLA, NINO. 1983. *Logical investigations of predication theory and the problem of universals*. Naples: Bibliopolis.
- COLLINS, CHRIS (ed.) 2014. *Cross-linguistic studies of imposters and pronominal agreement*. New York and Oxford: Oxford University Press.
- COLLINS, CHRIS, and PAUL M. POSTAL. 2012. *Imposters: A study of pronominal agreement*. Cambridge, MA: MIT Press.
- COMRIE, BERNARD. 1976. Linguistic politeness axes: speaker–addressee, speaker–referent, speaker–bystander. *Pragmatics microfiche*, vol. 1.7:A3, University of Cambridge: Department of Linguistics.
- D’AVIS, FRANZ, and JÖRG MEIBAUER. 2013. Du Idiot! Din idiot! Pseudo-vocative constructions and insults in German (and Swedish). *Vocative! Addressing between system and performance*, ed. by Barbara Sonnenhauser and Patrizia Noel Aziz Hanna, 189–217. Berlin/Boston: Walter de Gruyter.
- DELISLE, HELGA H. 1986. Intimacy, solidarity and distance: The pronouns of address in German. *Die Unterrichtspraxis / Teaching German* 19.4–15.
- ESPINAL, MARIA TERESA. 2013. On the structure of vocatives. *Vocative! Addressing between system and performance*, ed. by Barbara Sonnenhauser and Patrizia Noel Aziz Hanna, 109–132. Berlin/Boston: Walter de Gruyter.
- GINSBURG, JASON ROBERT. 2009. *Interrogative features*. University of Arizona dissertation.
- GIORGI, ALESSANDRA. 2010. *About the speaker: Towards a syntax of indexicality*. Oxford: Oxford University Press.
- HADDICAN, BILL. 2015. A note on Basque vocative clitics. *Ibon Sarasola, Gorazarre*, ed. by Beatriz Fernandez and Pello Salaburu, 303–317. Bilbao: University of the Basque Country.
- HAEGEMAN, LILIANE. 2014. West flemish verb-based discourse markers and the articulation of the speech act layer. *Studia Linguistica* 68.116–139.
- HAEGEMAN, LILIANE, and VIRGINIA HILL. 2013. The syntacticization of discourse. *Syntax and its limits*, ed. by Raffaella Folli, Christina Sevdali, and Robert Truswell, 370–390. Oxford: Oxford University Press.

- HALE, KENNETH, and SAMUEL JAY KEYSER. 1999. Bound features, merge and transitivity alternations. *Papers from the UPenn/MIT roundtable on the lexicon*, ed. by Liina Pylkkanen, Angeliek van Hout, and Heidi Harley, MIT Working Papers in Linguistics, 49–72. Cambridge, MA: MIT.
- HAN, CHUNG-HYE. 1998. *The syntax and semantics of imperatives and related constructions*. University of Pennsylvania dissertation.
- HAN, CHUNG-HYE, and CHUNGMIN LEE. 2007. On negative imperatives in Korean. *Linguistic Inquiry* 38.373–395.
- HAN, KIL. 2002. *Hyuntay wulimal-uy nopimpep yenkwu (Study on the honorifics of Modern Korean)*. Seoul: Yeklak Publishing Company.
- HARADA, S.-I. 1976. Honorifics. *Syntax and semantics 5: Japanese generative grammar*, ed. by Masayoshi Shibatani, 499–561. New York: Academic Press.
- HEIM, IRENE. 1991. Artikel und definitheit [articles and definiteness]. *Semantik: Ein internationales Handbuch der zeitgenössischen Forschung*, ed. by Arnim von Stechow and Dieter Wunderlich, 487–535. Berlin: Mouton de Gruyter.
- HEIM, JOHANNES; HERMANN KEUPDJIO; ZOE WAI-MAN LAM; ADRIANA OSA GÓMEZ; and MARTINA WILTSCHKO. 2014. How to do things with particles. *Proceedings of the annual conference of the Canadian Linguistic Association*, ed. by Laura Teddman. <http://cla-acl.ca/actes-2014-proceedings/> (18 April, 2018).
- HILL, VIRGINIA. 2007a. Romanian adverbs and the pragmatic field. *The Linguistic Review* 24.61–86.
- HILL, VIRGINIA. 2007b. Vocatives and the pragmatics-syntax interface. *Lingua* 117.2077–2105.
- HILL, VIRGINIA. 2013. Features and strategies: The internal syntax of vocative phrases. *Vocative! Addressing between system and performance*, ed. by Barbara Sonnenhauser and Patrizia Noel Aziz Hanna, 133–156. Berlin/Boston: Walter de Gruyter.
- HILL, VIRGINIA. 2014. *Vocatives: How Syntax meets with Pragmatics, Empirical Approaches to Linguistic Theory*, vol. 5. Leiden and Boston: Brill.
- HUALDE, JOSÉ IGNACIO, and JON ORTIZ DE URBINA. 2003. *A grammar of Basque*. Berlin: Mouton de Gruyter.
- KAUFMANN, MAGDALENA. 2012. *Interpreting imperatives*. Dordrecht: Springer.
- KIM-RENAUD, YOUNG-KEY, and MIOK PAK. 2006. Agreement in Korean syntax: A case of sentence final particles. *Harvard international symposium on Korean linguistics XI*, ed. by Susumo Kuno et al., 548–561. Seoul: Hanshin Publishing Company.
- KIPARSKY, PAUL, and C. KIPARSKY. 1970. Fact. *Progress in linguistics*, ed. by M. Bierwisch and K. Heidolph, 143–73. The Hague: Mouton de Gruyter.

- KRATZER, ANGELIKA. 2009. Making a pronoun: Fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry* 40.187–237.
- KRIFKA, MANFRED. 2014. Embedding illocutionary acts. *Recursion: Complexity in cognition*, ed. by Margaret Speas and Thomas Roeper. Dordrecht: Springer.
- KWON, JAE-IL. 1992. *Hankwuke tonsalong (Korean verb theory)*. Seoul: Minumsa.
- LEE, IKSOP, and S. ROBERT RAMSEY. 2000. *The Korean language*. SUNY series in Korean Studies. Albany, NY: SUNY Press.
- LEE, WOO-KYU. 1991. *Honorifics and politeness in Korean*. Madison, WI: University of Wisconsin dissertation.
- MARTIN, STEFAN E. 1992. *Topics in the syntax of nonstandard English*. College Park: University of Maryland dissertation.
- MCCREADY, E. 2014. A semantics for honorifics with reference to Thai. *28th pacific asia conference on language, information and computing (PACLIC 28)*, ed. by Wirote Aroonmanakun, Prachya Boonkwan, and Thepchai Supnithi, 503–512. Stroudsburg, PA: Association for Computational Linguistics (ACL).
- MCCREADY, E. to appear. *Honorification and social meaning*. New York and Oxford: Oxford University Press.
- MIYAGAWA, SHIGERU. 2012. Agreements that occur mainly in the main clause. *Main clause phenomena: New horizons*, ed. by Lobke Aelbrecht, Liliane Haegeman, and Rachel Nye, 79–112. Amsterdam/Philadelphia: John Benjamins.
- MORO, ANDREA. 2003. Notes on vocative case: A case study in clause structure. *Romance languages and linguistic theory 2001*, ed. by Josep Quer, Jan Schroten, Petra Sleeman, and Els Verheugd, 251–265. Amsterdam/Philadelphia: John Benjamins.
- NAM, KI-SIM. 2001. *Hyentay kwuke tonsalon (Modern Korean verb theory)*. Gyeonggi-do: Tayhaksa Publishing Company.
- NINAN, DILIP. 2010a. De se attitudes: Ascription and communication. *Philosophy Compass* 5.551–567.
- NINAN, DILIP. 2010b. Semantics and the objects of assertion. *Linguistics and Philosophy* 33.355–380.
- NORRBY, CATRIN, and CAMILLA WIDE (eds.) 2015. *Address practice as social action: European perspectives*. Basingstoke: Palgrave MacMillan.
- OYHARÇABAL, BEÑAT. 1993. Verb agreement with non-arguments: on allocutive agreement. *Generative studies in Basque linguistics*, ed. by José Ignacio Hualde and Jon Ortiz de Urbina, 89–114. Amsterdam/Philadelphia: John Benjamins.

- PAK, MIOK. 2008. Types of clauses and sentence end particles in Korean. *Korean Linguistics* 14.113–155.
- PAK, MIOK; PAUL PORTNER; and RAFFAELLA ZANUTTINI. 2013. Speech style in root and embedded imperatives. Talk delivered at the Workshop *Imperatives, embeddability, and politeness*, held at Yale.
- PALMER, F.R. 2001. *Mood and modality*. second edn. Cambridge: Cambridge University Press.
- PARK, JISOON. 2006. *Hyuntay kwuke sangtay nopimpep-uy mayklak pwunsekcek hyenkwu-ilsangcek cwunkwue calyo-uy pwunsek-ul pathangulo (Analytical study on the context of Modern Korean addressee honorifics - based on the analysis of daily speech)*. Seoul: Yonsei University dissertation.
- PARTEE, BARBARA. 1989. Binding implicit variables in quantified contexts. *Papers from the 25th regional meeting*, ed. by Caroline Wiltshire, Randolph Graczyk, and Bradley Music, Chicago: Chicago Linguistic Society, 342–365.
- PORTNER, PAUL. 2004. The semantics of imperatives within a theory of clause types. *Proceedings from SALT XIV*, ed. by Kazuha Watanabe and Robert B. Young. Ithaca, NY: CLC Publications, Cornell University. Online: <http://semanticsarchive.net/Archive/mJZGQ4N/>.
- PORTNER, PAUL. 2007. Instructions for interpretation as separate performatives. *On information structure, meaning and form: Generalizations across languages*, ed. by Kerstin Schwabe and Susanne Winkler, 407–425. Amsterdam/Philadelphia: John Benjamins.
- PORTNER, PAUL. 2018. *Mood*. Oxford: Oxford University Press.
- POTTS, CHRISTOPHER. 2005. *The logic of conventional implicature*. Oxford: Oxford University Press.
- POTTS, CHRISTOPHER. 2007. The expressive dimension. *Theoretical Linguistics* 33.165–197.
- POTTS, CHRISTOPHER, and SHIGETO KAWAHARA. 2004. Japanese honorifics as emotive definite descriptions. *Proceedings of Semantics and Linguistic Theory 14*, ed. by Kazuha Watanabe and Robert B. Young, 235–254. Ithaca, NY: CLC Publications.
- RIVERO, MARÍA LUISA, and ARHONTO TERZI. 1995. Imperatives, V-movement and logical mood. *Journal of Linguistics* 31.301–332.
- RIZZI, LUIGI. 1997. The fine structure of the left periphery. *Elements of grammar: Handbook of generative syntax*, ed. by Liliane Haegeman, 281–337. Dordrecht: Kluwer Academic Publishers.

- ROBERTS, IAN G. 2004. The C-system in Brythonic and Celtic languages, V2, and the EPP. *The structure of CP and IP: The cartography of syntactic structures*, ed. by Luigi Rizzi, 297–328. New York and Oxford: Oxford University Press.
- ROOTH, MATS. 1992. A theory of focus interpretation. *Natural Language Semantics* 1.75–116.
- ROSENBAUM, PETER. 1967. *The grammar of English predicate complement constructions*. Cambridge, MA: MIT Press.
- ROSS, JOHN R. 1970. On declarative sentences. *Readings in English transformational grammar*, ed. by Roderick Jacobs and Peter Rosenbaum, 222–272. Waltham, MA: Ginn.
- SADOCK, JERROLD M. 1974. *Toward a linguistic theory of speech acts*. New York: Academic Press.
- SIGURÐSSON, HALLDÓR ÁRMANN. 2004. The syntax of Person, Tense and speech features. *Journal of Italian Linguistics/ Rivista di Linguistica* 16.219–251.
- SIGURÐSSON, HALLDÓR ÁRMANN. 2014. Context-linked grammar. *Language Sciences* 46.175–188.
- SILVERSTEIN, MICHAEL. 2003. Indexical order and the dialectics of sociolinguistic life. *Language and Communication* 23.293–229.
- SLOCUM, POPPY. 2016. *The syntax of address*. Stony Brook University dissertation.
- SOHN, HO-MIN. 1999. *The Korean language*. Cambridge: Cambridge University Press.
- SPEAS, MARGARET. 2004. Evidentiality, logophoricity and the syntactic representation of pragmatic features. *Lingua* 114.255–276.
- SPEAS, MARGARET, and CAROL L. TENNY. 2003. Configurational properties of point of view roles. *Asymmetry in grammar*, ed. by Anna Maria Di Sciullo, 315–344. Amsterdam/Philadelphia: John Benjamins.
- STALNAKER, ROBERT. 1974. Pragmatic presuppositions. *Semantics and philosophy*, ed. by M. Munitz and P.K. Unger, 197–213. New York: NYU Press.
- STALNAKER, ROBERT. 1978. Assertion. *Syntax and semantics 9: Pragmatics*, ed. by P. Cole, 315–332. New York: Academic Press.
- STALNAKER, ROBERT. 2014. *Context*. Oxford: Oxford University Press.
- SUH, CHUNG-SOO. 1996. *Korean grammar*. Seoul: Hanyang University Press.
- TAGLICHT, JOSEF. 1984. *Message and emphasis: On focus and scope in English*. London/New York: Longman.
- TRUCKENBRODT, HUBERT. 2006. On the semantic motivation of syntactic verb movement to C in German. *Theoretical Linguistics* 32.257–306.

- ZANUTTINI, RAFFAELLA. 1997. *Negation and clausal structure: A comparative study of Romance languages*. New York and Oxford: Oxford University Press.
- ZANUTTINI, RAFFAELLA; MIOK PAK; and PAUL PORTNER. 2012. A syntactic analysis of interpretive restrictions on imperative, promissive and exhortative subjects. *Natural Language and Linguistic Theory* 30.1231–1274.
- ZANUTTINI, RAFFAELLA, and PAUL PORTNER. 2003. Exclamative clauses: At the syntax-semantics interface. *Language* 79.39–81.
- ZU, VERA. 2013. Probing for conversation participants: The case of Jingpo. *Proceedings of the 49th annual meeting of the chicago linguistic society*, vol. 49, Chicago: Chicago Linguistic Society.
- ZU, VERA. 2015. A two-tiered theory of the discourse. *Proceedings of the poster session of the 33rd West Coast Conference on Formal Linguistics, CSLI*, 151–160.
- ZU, VERA. 2016. A two-tiered theory of the discourse. *Proceedings of the poster session of the 33rd West Coast Conference on Formal Linguistics*, ed. by Kyeong-min Kim et al., 151–160. CSLI, Somerville, MA: Cascadilla Press.
- ZU, VERA. 2018. *Discourse participants and the structural representation of the context*. New York, NY: NYU dissertation.
- ZWICKY, ARNOLD M. 1974. Hey, whatyourname. *Papers from the tenth regional meeting of the chicago linguistic society*, 787–801. Chicago: Chicago Linguistic Society.