Formality Mismatches as Clashing Expressive Content

Abstract

In a recent paper, Portner et al. (2019) argue that grammatically encoded formality distinctions are best understood as being mediated by a functional head, *c*, which can access relations between the speaker and addressee. In this paper, I will show that pronouns can mismatch in their formal values, both against other pronouns and sentence-level honorifics, which cannot be captured by an account that binds formal pronouns under a single head. I instead spell out an analysis that treats formality features as expressive content which is introduced by the pronoun itself, similar to the treatment proposed for honorifics by Potts (2005) and McCready (2019). The discourse effects derived from clashing formality values are generated as a conversational implicature.

Keywords: *formality, honorific, speaker-addressee relations, expressive, operator-variable agreement, presupposition, mismatch*

1 Background

Going back to Comrie (1976), languages have been described as having at least two strategies for encoding formality relations between the speaker and addressee. One style introduces the addressee as a discourse referent and encodes the level of formality. A well-known example of this style is the *tu-vous* distinction in French on second person pronouns. The other style encodes the level of formality, but does not inherently introduce the

addressee as a discourse referent. Honorific verbal suffixes in Japanese and Korean are an example of this type. Portner et al. (2019) refer to these speech-style markers as *content-oriented* and *utterance-oriented* markers respectively. An example of a content-oriented marker in German, and an utterance-oriented marker in Korean, are given below in (1) and (2) respectively.[1,2]

(1) **Du/Sie** gabst/gaben mir das Buch.
YOU.INFORMAL/YOU.FORMAL GAVE ME.DAT THE BOOK
'You gave me the book.' (German)

(2) Ecey pi-ka o-ass-**supnita**.
YESTERDAY RAIN-NOM COME-PST-DECL.**FORMAL**
'It rained yesterday.' (Korean; Portner et al. 2019)

The type of meaning encoded by utterance-oriented and content-oriented speech-style markers is strikingly similar. In both cases, the speaker indicates their level of formality with respect to the addressee. The two types of markers differ significantly, however, in their morphosyntactic distribution. Of particular interest is that content-oriented markers can appear freely in embedded positions, as shown for German in (3), whereas utterance-oriented markers are restricted in appearing in embedded positions, as shown for Korean in (4).

(3) Hans sagte, dass [**du/Sie** mir das Buch
HANS SAID THAT **YOU.INFORMAL/YOU.FORMAL** ME.DAT THE BOOK
gabst/gaben].
GAVE
'Hans said you gave me the book.' (German; Content Oriented)

(4) *Inho-ka [ecey pi-ka o-ass-**supnita**-ko]
INHO-NOM [YESTERDAY RAIN-NOM COME-PST-DECL.**FORMAL**-COMP]

[1]All examples, unless otherwise noted, are taken from personal communication with at least three native speaker linguists for each respective language. Names of consultants have been redacted throughout the paper for the purposes of blind review.

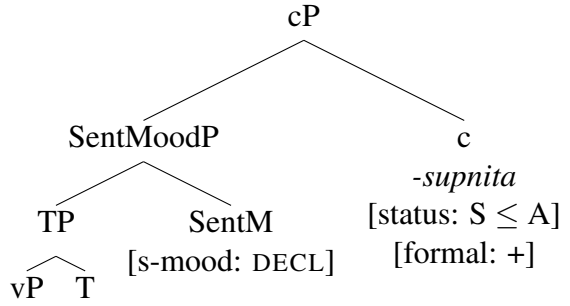
[2]Formal/informal markers will be in **bold** throughout.

malhayss-(**supnita**).
SAID-DECL.**FORMAL**
'Inho said that it rained yesterday.'

(Korean; Utterance Oriented; Portner et al. 2019)

Portner et al. (2019) argue that the distributional difference between content-oriented and utterance-oriented markers is explained by the existence of a functional head related to the context, which they call *c*, that encodes the relation between speaker and addressee. Utterance-oriented speech-style particles, as in (2) and (4), are an overt instantiation of the speaker-addressee features located in *c*. The structure provided by Portner et al. (2019) is shown below in (5), in which *cP* immediately dominates SentMoodP, which in turn immediately dominates TP. In this example, the speaker (S) is marked as less than or equal to the addressee (A), based on the actual real-word relationship between the speaker and addressee (for example, their relative social standing) and the overall formality is set to formal.[3]

(5) Clause Structure described by Portner et al. (2019)



Portner et al. (2019) argue that *c* is a projection that is limited to appear in matrix clauses, because it introduces a performative, non-propositional meaning component. Given that utterance-oriented speech-style particles are pronounced directly on *c*, the analysis in

[3]It is unclear whether more operations than $\leq$ and $\geq$ would be necessary to transfer this system to languages like Japanese and Thai. Iwasaki & Horie (2000), for example, describe Thai as having a three-way formality distinction of low, mid, high. McCready (2019) describes Japanese as having at least four levels of formality for first and second person pronouns.

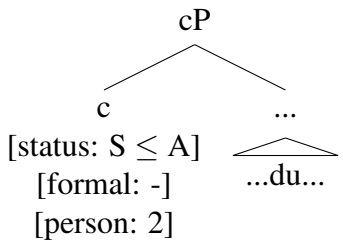
(5) straightforwardly explains the restriction against utterance-oriented markers appearing in embedded position, as shown by the ungrammaticality of (4).

As for content-oriented speech-style markers, Portner et al. (2019) wish to consolidate them under the same analysis as was used to explain the distribution of the utterance-oriented speech-style particles. Given that content-oriented markers can appear freely in embedded positions, they cannot be spelled out directly on *c*. Portner et al. (2019) analyse content-oriented markers as being bound by an operator that is present on *c*. Operator-variable agreement is crucially different from the Agree relation, which is phase-bound (Chomsky 2000). Baker (2008) states operator-variable agreement as the following relation.

(6) If variable X is referentially dependent on operator Y (directly or indirectly), then X has the same ϕ-features as Y. (Baker 2008; 122)

Given that operator-variable agreement is well-known to take place non-locally (Chomsky 1977), content-oriented speech-style particles can appear in embedded positions, across an intervening clause boundary, and will obligatorily match the ϕ-features on *c*, because the pronoun is referentially dependent on the features in *c*. Following this formulation, the informal second person pronoun in German, *du*, is derived by the features on *c* binding the pronoun within the succeeding clause, regardless of distance or intervening heads, like in (7) below.

(7)



This analysis has several desirable consequences. Treating formal speech-style markers

in this way consolidates content-oriented and utterance-oriented speech-style markers by deriving their meaning from the same source. Furthermore, it straightforwardly explains why content-oriented and utterance-oriented speech-style markers have similar semantics but different morphosyntactic distributions.

Unfortunately, the account presented in Portner et al. (2019) relies on operator-variable binding to ensure the values on the pronouns match the features on *c*, which in turn reflect the real world relation between speaker and addressee. Using the operation of operator-variable binding predicts that it should be impossible to have pronouns that do not agree in formality with other pronouns within the same sentence, or with sentence level speech-style particles. This prediction is not borne out, however. In the next section, I will show that it is possible for languages to allow multiple formality values within the same clause, referring to the same speaker-addressee relationship. A new account will be proposed in Section 3 on the basis of this novel empirical observation.

2 Formal Pronouns Are Not Bound by an Operator

This section will highlight two patterns involving content-oriented markers that cannot be captured by an analysis that binds content-oriented markers under an operator. The first pattern is multiple pronouns in the same sentence that differ in their formality value, and the second pattern is pronouns that differ in formality from the sentence level marker.

2.1 Mismatched Formality Between Multiple Content-Oriented Markers

A closer look at languages with content-oriented markers reveals that it is possible, within one sentence, to have both an informal and formal pronoun referring to the same individual. Take the following example from German, where the speaker, addressing a new in-law, first utilizes the formal pronoun *ihre*, and subsequently utilizes the informal pronoun *du*, to refer

to the same individual, in the same sentence.

(8) Jetzt, dass ich **ihre** Tochter geheiratet habe, können
NOW THAT I **YOUR.FORMAL** DAUGHTER GOT.MARRIED HAVE CAN
du und ich uns **duzen**.
YOU.INFORMAL AND I US **SPEAK.INFORMAL**
'Now that I married your daughter, you and I can speak informally with one another.'

My German informants agree that the shift in formality in (8) is grammatical. It is felicitous, however, only if the change in formality is recognized immediately by virtue of switching the formal pronoun from the formal *ihre* to the informal *du*. This utterance is therefore most naturally uttered in a discourse context where the real-world relationship between speaker and addressee has recently undergone a relevant change. In the case of (8), it is natural to refer to a potential parent-in-law with *ihre*, in order to show deference. After marriage, however, it is more common to use the familiar form *du* to refer to a family member. By switching the pronoun value within a single sentence, the speaker emphasizes the real world shift that has just taken place.

The following Turkish example demonstrates the same phonemonon, two pronouns mismatching within the same sentence to mark a recent relevant change in the context.[4] In the case below in (9), there is from the informal singular form to the formal plural form.

(9) Artık tez-**in**-i
NOW DISSERTATION-**POSS.2SG.INFORM**-ACC
savun-duğ-**un** için **siz**-e Dr.
DEFEND-NMLZ-**POSS.2SG.INFORM** FOR **YOU.FORMAL**-DAT DR.
diy-ebil-ir-im.
SAY-ABIL-AOR-1SG.
'Because you just defended your dissertation, I can refer to you as Doctor.'

(Turkish)

[4]Given that Turkish is a PRO-DROP language, the mismatch is most naturally realized through the agreement morphology itself.

(9) is most naturally uttered in a context where the addressee has just shifted their social status with respect to the speaker (in this case, recently defending a dissertation and gaining a new title, while the speaker maintains the same social position). The speaker and addressee normally have an informal relationship, but the speaker is contextually authorized to be formal with the addressee due to the social shift that has just taken place. The contrast between the informal pronoun and the formal pronoun emphasizes the real world status shift that has occurred. It should be noted that this sentence is felicitous even though it is unlikely that the actual relationship between the speakers has changed. That is to say, defending a dissertation does not entail that two individuals who were previously equal will now no longer act equally towards each other in most social situations. Rather, the switch in formality serves as a mark of respect to note the social shift that has occurred, and is anchored to the real-world event.

If content-oriented markers were bound by an operator, then the sentences in (8) and (9) should be impossible in any language with *c*, no matter which features are represented there. This is because there can only be one operator representing formal values per sentence, and the value of this operator must be fixed for the entirety of the sentence. Thus, if the value of the operator is set to formal, then all pronouns bound under that operator are obligatorily formal and vice-versa. But in (8) and (9), the same operator would have to bind both a formal and informal pronoun in the same sentence, which is impossible. Instead, the German and Turkish sentences mismatch formality values within a single sentence. The grammars of languages with content-oriented formality permit multiple formality values to surface in specific discourse contexts; syntactic binding analyses cannot account for this.

Both (8) and (9) could be argued to include multiple *cPs* that are conjoined. If *cP* is a main clause phenomenon, and (8) and (9) were conjunctions of main clauses, we might expect a mismatch to be possible. Under that view, each *cP* would have a different politeness value, and each value would bind its respective pronoun.

Given the actual syntax of the examples involved, however, this seems unlikely. The subordinating complementizer *dass* in German from example (8) is characteristic of embedded clauses, not main clauses.[5] The word order in after *dass* in (8) is also typical of embedded, rather than main, clauses. As for example (9). Kornfilt (2013) argues that *için* is a postposition which takes a nominalized clause as its complement. If these analyses are correct, than the *için* clause these examples are not instances of conjunction, but of subordination. As such, neither embedded clause could host its own *cP*, as embedded environments cannot host main clause phenomena. If there were multiple *cPs* in (8) and (9), one *cP* would have to be in embedded position. The entire purpose of placing utterance-oriented markers on *c* in the first place was to restrict *cP* from appearing in embedded position, to explain the lack of utterance-oriented markers that appear in embedded position. Thus, making this type of adjustment would remove the appeal of the analysis presented by Portner et al., explaining the difference between *content-oriented* and *utterance-oriented* markers. For this reason it is theoretically undesirable.

Although the scenarios in which utterances like (8) and (9) are acceptable are highly limited, this should not take away from the main point. The main point is that it is grammatical to mix multiple formal values for pronouns within the same sentence. That is to say, there is an option in the grammar to mix pronouns, and there is a (highly limited) context in which this mismatch is pragmatically licensed. What this means is that a syntactic explanation that rules out the possibility of mixing formal values cannot be correct. Instead, an account that allows mismatching formal values while restricting the use conditions on doing so would account for the data.

[5]See Schwabe (2011) for an account of main-clause uses of *dass*, which imply a subordinator

2.2 Mismatch Between Content and Utterance-Oriented Markers

It is also possible, in languages that have both content-oriented and utterance-oriented formality markers, for those values to differ within the same clause. In order to demonstrate this, a language is needed that possesses both content-oriented and utterance-oriented speech-style markers. Both Korean and Japanese are examples of such languages. In both Korean and Japanese, it is possible for an informal pronoun to be used with a formal utterance-oriented marker. In example (10) below, the informal second person pronoun co-occurs with a formal sentence level particle.

(10) Kulayse **ney**-ka swukcey-lul ahn ha-ess-e-**yo**?
SO **INFORM.YOU**-NOM HOMEWORK-ACC NEG DO-PST-DECL-**POLITE**
'So, you didn't do the homework?' (Korean)

The addressee-oriented pronoun in (10) is used in informal context, whereas the utterance-oriented speech-style particle attached to the verb is specified as formal. An utterance like (10) is used most naturally when the speaker is being sarcastic, or asking a rhetorical question. A similar effect and syntax is seen in Japanese below (11).

(11) **Anta**-wa sushi-o tabe-**mas**-i-ta-ka?
YOU.INFORMAL.TOP SUSHI-ACC EAT-**FORMAL**-DECL.PST-Q
"Did you eat sushi?" (Japanese)

An example like (11) is most naturally used in a context where the speaker is typically deferential to the addressee, but wishes to be informal, possibly for the effect of rudeness. The opposite effect is also possible in both languages, with an informal utterance-oriented marker with an honorific pronoun or lexical item. In both Korean and Japanese, the informal utterance context can be marked by a null morpheme.[6] Both Korean and Japanese have

[6] An anonymous reviewer points out that a null morpheme may not necessarily indicate "not formal." Though it is difficult to distinguish the two, because omitting the marker has a generalized use condition associated with it, I will treat it as marking "informal."

specific lexical items that are marked as obligatorily honorific, which in the cases below are related to eating. These lexical items therefore introduce a non-formal referent (in this case, meal) and also establish that the speaker is honoring the addressee simultaneously. This is illustrated in Korean below in (12) and Japanese in (13).

(12) **Ttanim/kongcwunim**, **siksa** hay-**e**.
DAUGHTER.HON/PRINCESS.HON MEAL.HON DO-**INTIM.IMP**
'Daughter, eat your meal.' (Korean)

(13) **Anata**-wa sushi-o **meshiaga**-∅-tta-ka?
YOU.FORMAL-TOP SUSHI-ACC **EAT.HON-INFORM**-PST-Q
'Did you eat sushi?' (Japanese)

Both Japanese and Korean possess lexical items that are inherently honorific, yet these honorific items can clash with the sentence level honorific marker. In (12), for Korean, the honorific noun "siksa" when combined with the verb "ha" is an inherently honorific verb meaning "to eat" (literally "do an honorable rice/meal") (Brown 2011). Despite this, it is compatible with an informal utterance-oriented speech-style particle (*-e*). In (13), for Japanese, the verb "meshiaga" is also an inherently honorific lexical item (Nariyama et al. 2005), but it can combine with an informal utterance-oriented speech-style particle. In both Korean and Japanese, it is more common to match the formal sentence level marker with formal lexical items, but it is not obligatory. There is a generalized discourse context for utterances like (12) and (13). (12) is most naturally used by a parent who is trying to convince a child to do something the child is hesitant to do. Thus, the speaker can use the honorific item for *meal*, and use an honorific item for the addressee, but still maintain the use of an informal speech-style particle. An utterance like (13) is typically used in social situations where the speakers think of themselves as being upper-class, and typically use the formal pronoun to talk to individuals with whom they are equivalent. Despite the use of the formal pronoun, the formal sentence-level marker is not required, and the speaker may

omit it to indicate that the speaker and addressee are equal (S = A).

If utterance-oriented speech-style particles were direct spell-outs of the speaker-addressee features, it would be impossible for content-oriented speech-style markers to have a different formality value than utterance-oriented markers within the same sentence. As I have demonstrated, this is not borne out, and the values do not have to match. Instead, sentences where the utterance-oriented marker does not match the value of the content-oriented marker are acceptable. Crucially, in each case, there exists a readily obtainable discourse effect from clashing the formality values. Given that a functional head analysis cannot explain the actual distribution of formal pronouns, the next section will investigate an alternative analysis.

3 An Expressive Account of Formality

The purpose of this section is to argue that formal pronouns introduce expressive content, and that mismatches result from a clash in updates from that expressive content. It is first necessary, however, to explain why a presuppositional account is insufficient.

3.1 A Note on Performativity and Against Presuppositionality

ϕ-features such as gender and number on pronouns are often analyzed as presuppositions (Cooper 1983; Sauerland 2003). It is tempting, therefore, to analyze politeness as another such presupposition. Indeed, such an analysis would have the benefit of consolidating politeness features with other pronominal features. Given that the default assumption should be that all pronominal features act in the same manner, it is worth evaluating whether each feature acts in the same way.

It is initially plausible that formality values could be presuppositional because formal content is not at-issue content. The following discourse in German shows that formality on

a pronoun can never be at-issue in the way the main proposition can.

(14) A: **Sie** müssen morgen gehen.
YOU.FORMAL MUST TOMORROW LEAVE.INF
'You have to leave tomorrow.'

(15) B: Das ist nicht wahr.
THAT IS NOT TRUE
'That's not true!'

B's response is felicitous in (15) if the propositional content of the utterance in (14) is incorrect, and B has to leave at some other time. B's response is incoherent with the attempted meaning that A should not have used the formal pronoun with B. Replies addressing truth and falsity, therefore, are not acceptable with regards to formal content. There are a variety of not-at-issue categories beyond presuppositions, however (Tonhauser et al. 2013). Despite the fact that both gender and formality are not-at-issue, they act differently in several respects.

Section 2 demonstrated that formal values are capable of being mismatched within a sentence. Gender mismatches, on the other hand, are much more highly marked than formality mismatches. In the following example, the speaker cannot mismatch the gender value within the same sentence referring to same individual.

(16) Even though he$_i$ is happier now, I preferred him$_i$ / ???her$_i$ before.

Though gender and formality are both features carried by pronouns, they do not have the same distribution. Given that gender has previously been argued to be presuppositional (Cooper 1983; Sauerland 2003), this suggests formality is therefore not presuppositional.

Going back to at least Karttunen (1974), presuppositional content is well-known to be able to be "plugged" and not pass up to the whole sentence. One such "plug" is a conditional antecedent. One significant point of difference between presuppositional content and

expressive content is that the former is capable of being bound by conditional antecedents, but the latter are not (Potts 2005). 'Binding' in this case refers to the fact that the existence of the conditional antecedent causes the presupposition of existence not to project outside the conditional. The following example, from McCready (2010), demonstrates a presupposition of existence not projecting beyond a conditional antecedent.

(17) If John has a daughter, John's daughter must be pretty.

Without any conditional antecedent, the string "John's daughter must be pretty," typically presupposes the existence of John's daughter. However, this presupposition can be bound by the conditional in (17). Gender is also capable of being bound by an antecedent conditional.[7]

(18) a. If Taylor is male, he can join the men's soccer team.

b. If Taylor is female, she can join the women's soccer team.

In (18a), the male gender presupposition introduced by 'he' is bound by the antecedent conditional, and does not project up to the whole sentence. The same is true of the female gender presupposition in (18b). Data like those in (18a) and (18b) show that gender features on pronouns are best treated as presuppositions, which typically project out of embedded contexts, but can be bound by "plugs," such as antecedent conditionals.

Formal content, on the other hand, is not capable of being bound by antecedent conditionals under any circumstances. Take the following discourse in German, between two individuals who are typically formal towards each other. German has a lexical item, "*duzen*"

[7] McCready (2019) notes the unacceptability of the following example.

(1) #If Donald were a woman, she wouldn't be such an awful person.

The difference between acceptable examples like (18a) and (18b), and Mccready's example on the other hand, may be due to counterfactuality of the prejacent.

which means "to use the *du* form with," or to be informal towards. An antecedent conditional with this lexical item cannot bind the informal pronoun in subsequent dialog, as shown in (19b). Assume for the examples in (19) a context in which two individuals typically use the formal pronoun, *Sie*, with one another.[8]

(19) a. Wenn wir uns duzen würden, würden **Sie** sich freuen.
IF WE US TO.USE.'DU' CONJ.1PL BE **YOU.FORMAL** BE HAPPY
'If we were to use 'du' to each other, you would be happy.'

b. #Wenn wir uns duzen würden, würdest **du** dich freuen.
IF WE US TO.USE.'DU' CONJ.1PL BE **YOU.INFORMAL** BE HAPPY
'If we were to use 'du' to each other, you would be happy.'

(19b) is infelicitous because the speaker used the informal pronoun with the addressee despite the fact that the speaker and addressee do not use the informal pronoun with one another. An antecedent conditional that explicitly mentions using a different formality cannot actually license that formality in the subsequent clause. Doing so would amount to actually changing the formality value between the two participants, which is not the intent of the speaker here. Crucially, (19b) can only be interpreted as the speaker actually updating the formality relation between the two individuals, not as entertaining a hypothetical. Thus, the formality value projects outside of an antecedent conditional, even one that explicitly mentions formality.

Similarly, Turkish has an idiom "*senli benli olmak*" which means "to get on a first-name basis with someone" or "to use informal pronouns with someone". The same observation holds in Turkish, the conditional clause introducing the informal context cannot bind the informal pronoun in the main clause. Again, the context of an utterance like (20) below is two speakers who are accustomed to using the formal pronoun, *siz*, with one another.

[8]McCready (2019) refers to attempts to trap expressive content as *situation trapping*, and notes that it is unacceptable.

(20) a. **Sen**li benli ol-sa-k muhtemelen **siz** daha
YOU.INFORMAL I BE-COND-1PL PERHAPS **YOU.FORMAL** MORE
mutlu ol-acak-**sınız**.
HAPPY BE-FUT-**2SG.FORMAL**
'If we were to be informal to each other, you would probably be happier.'

b. **#Sen**li benli ol-sa-k muhtemelen **sen** daha
YOU.INFORMAL I BE-COND-1PL PERHAPS **YOU.INFORMAL** MORE
mutlu ol-acak-**sın**.
HAPPY BE-FUT-**2SG.FORMAL**
'If we were to be informal to each other, you would probably be happier.'

What these German and Turkish examples show is that formality on pronouns obligatorily projects outside of an antecedent conditional. The formal pronoun has to be used if the actual relationship between the speakers is a formal one, regardless of what conditional may be entertained. Thus, a presuppositional treatment of formality markers makes the wrong prediction with respect to binding in conditional antecedents.

Indeed, Portner et al. (2019) argue convincingly against a presuppositional analysis based on performative uses of formality markers, like the exchange below. Rather than just marking the formality between the participants, formal markers can be used to actively change the relationships between the discourse participants. In (21) below, the mother can switch from the intimate style to the polite style to indicate respect towards her son.

(21) Mom: Inho-ya, onul sihem cal poass-**e**?
INHO-VOC.INTIM TODAY TEST WELL DONE-INT.**INTIM**
'Inho, did you do well on the test today?'

Inho: Ney, emma. 100 cem pat-ass-**eyo**.
YES MOM 100 POINT RECEIVE-PST-DECL.**POL**
'Yes, mom. I received 100.'

Mom: Wa! Cengmal? Cham calhayss-**eyo**!
WOW REALLY INDEED WELL.DONE-DECL.**POL**
'Wow! You did really well!' (Portner et al. 2019; p.14, ex: 35)

I agree with Portner et al. (2019) that exchanges like the one in (21) show that a presuppositional analysis of formality marking is not the best analysis. Presuppositions reflect assumptions that interlocutors make about the world, and when false, should render truth conditions difficult, if not impossible, to access. As correctly pointed out by Portner et al. (2019), the utterance-oriented markers in (21) are used performatively to *update* the speaker-addressee relation.

We have already shown, however, that the right analysis cannot possibly be one in which a functional head binds the formality values on pronouns lower in the clause. The exact same type of update can happen *within* the same sentence. Recall example (9), repeated as (22), below.

(22) Artık tez-**in**-i
NOW DISSERTATION-**POSS.2SG.INFORM-ACC**
savun-duğ-**un** için **siz**-e Dr. Donovan
DEFEND-NMLZ-**POSS.2SG.INFORM** FOR **YOU.FORMAL**-DAT DR. DONOVAN
diy-ebil-ir-im.
SAY-ABIL-AOR-1SG.
'Because you just defended your dissertation, I can refer to you as Dr. Donovan.'

When a formal marker is uttered, the context is dynamically updated with the appropriate value. When a subsequent, different marker is uttered, the context can be dynamically updated again. Whatever captures this type of performative update needs to be able to do so not only across sentence boundaries, as in Portner et al. (2019), but also *within the same sentence*. In the next subsection, I will propose such an analysis, where each formal pronoun provides its own meaning locally as conventionally implicated expressive content. When this expressive content provides clashing updates, various pragmatic flavors can be accommodated. Doing so allows for pronouns to performatively update the relations between discourse participants without resorting to syntactic binding.

3.2 An Expressive Account of Formality

Syntactic binding cannot explain the distribution of formal pronouns. A presuppositional analysis also cannot adequately capture the facts. The question then becomes, what is the best way of analyzing the meanings contributed by expressions with differing formality values? In this section, I will treating formal features on honorific pronouns as expressive content. This is not a novel idea, and has been pursued before (Kaplan 1999; Potts 2005; McCready 2010). I will then provide an analysis of how expressive content may be able to clash with other expressive content without crashing the derivation.

Potts (2005) analyzes honorifics as conventional implicatures, under a broader treatment of a class of expressions he terms "expressives." Honorifics are not limited to speaker-addressee relations, as they can reference third-persons not present in the discourse as well. Nevertheless, given that honorifics are used to mark status between individuals, they are quite similarity to speaker-addressee formality markers. Potts points out using examples like (23) below that expressive content like *bastard* cannot be challenged or falsified, and in this sense he considers them performative.

(23) #That bastard Conner got promoted. But he probably isn't a bastard.
(Potts 2005's example 5.6c; p157, adapted from Kaplan 1999)

Expressives seem to interact with truth and falsity in the same way as formality. A follow-up questioning the truth of (23) can only succeed if it questions Conner's promotion, not the original speaker's attitude towards Conner. Like formality, the following examples from McCready (2010) show that conventionally implicated expressive content also cannot be bound by antecedent conditionals.

(24) a. #If John is a swimmer, then John, a swimmer, came to the party.

b. #If I hate John, then that damn John came to the party.

Honorific pronouns, therefore, are acting like expressive content and not presuppositional content. The most complete account I am aware of that treats honorific pronouns as expressive content is McCready (2019). In this book, she develops a system in which honorific content updates a global register which is an interval of [0, 1], with 0 representing a very informal context and 1 representing a very formal context.[9] Under such a system, honorific lexical items will typically be compatible with sub-intervals of the global register. Below I sketch a very simple system for German pronouns based on this idea, where the formal pronoun *Sie* occupies the formal subinterval of the register, and the informal pronoun *du* occupies the informal subinterval of the register.

(25) a. $[\![$ *Sie / Ihre* $]\!] = [.5, 1]$

b. $[\![$ *du* $]\!] = [0, .5]$

The basic idea here is that, if the global register is set to relatively formal (which corresponds to the sub-interval [.5, 1]), then it is appropriate to use *Sie / Ihre*. If the global register is set to relatively informal ([0, .5]), then it is appropriate to use *du*. Use of formal pronouns serves to performatively update the register to the appropriate subinterval. Over the course of normal dialog, speakers may switch from the use of the formal pronoun to an informal one as the speakers become closer and the global register becomes less formal (Brown & Gilman 1960). Use of a honorific pronoun is not bound by the values of the register, but are used to actively set the register. Thus, by using *Sie*, a German speaker continues to affirm that the register is set between [.5, 1]. By using *du*, they are affirming that the register is set between [0, .5].

What then, do we make of sentences that use mismatching honorific pronouns? A sentence like (8) in German, copied as (26) below, is a proposal to first affirm that the

[9]The value of this register is determined by a 3-tuple of intervals ⟨P,S,F⟩ which corresponds to psychological distance, social distance, and formality respectively. See McCready (2019) for more details on how the global register is computed. For the purposes in this paper, I will just report the global register.

global register is between [.5, 1], and immediately afterwards affirm that the global register is [0, .5].

(26) Jetzt, dass ich **ihre** Tochter geheiratet habe, können
NOW THAT I **YOUR.FORMAL** DAUGHTER GOT.MARRIED HAVE CAN
du und ich uns **duzen**.
YOU.INFORMAL AND I US **SPEAK.INFORMAL**
'Now that I married your daughter, you and I can speak informally with one another.'

→ Speaker proposes to update the context with S is formal towards A and speaker proposes to update the context with S is informal towards A.

We might expect that the type of update induced by an utterance like (26) would immediately crash, because it is a proposal to update the register to two values that do not overlap with one another. However, despite the clashing update, the global derivation does not crash. Rather, there is a generalized discourse effect from first setting the global register as relatively formal, then immediately switching to relatively informal. This discourse effect may vary between languages, but there is some discourse effect available from mixing.

Rather than crashing, the register is updated with each utterance of an honorific pronoun. For (26), there is a pragmatic effect of shifting the values within the sentence to mirror the real-world status shift that has occurred. Each formality marker therefore contributes its own dynamic update to the context, and the result from doing so heightens the contrast between the polite and impolite.

I propose that the discourse effect brought about by mixing values in this way is a *conversational* implicature. That is to say, there is a logical contradiction in the values proposed for the global register by an utterance like (26). However, the addressee seeks to accommodate the utterance. The most natural interpretation of an utterance like (26) is not that the speaker is simultaneously proposing that the global register is both relatively formal and relatively informal, which would be incoherent. Instead, the interpretation is that the

speaker is shifting the register mid utterance to mark the social shift that has occurred recently in the real world. As Portner et al. (2019) show in (21), this type of update can occur across sentence boundaries, but it can, under the right conditions, also occur within a single sentence.

Conversationally implicated content is typically evaluated with respect to alternatives on a scale. In this case, relevant alternatives would be utterances that keep the formality consistent throughout the sentence. The speaker is interpreted as shifting formality as an attempt to mirror the real world shift in status, rather than attempting to provide a contradictory update. Assuming Grice's cooperative principle, we assume that speakers are being informative in their utterances. Therefore, the literal interpretation of a sentence like (26) is ruled out, that the speaker is both formal and informal with respect towards the addressee. Assuming that conversational implicatures are always weighed against the alternatives, in this case we have the fact that the speaker chose not to keep the formality consistent throughout the utterance, with either the formal or informal markers throughout.

This type of contrast is taken to be a discourse-general principle, rather than anything specific to any given language with grammaticalized formality. I take this to be a favorable result. Very similar types of effects can be found even in languages without grammaticalized formality on pronouns, like English, as in (27) below.

(27) With all due respect Your Honor, you are a fucking idiot.

Both "Your Honor" and "fucking" in (27) above are classic examples of expressive content. In this case, they are contradictory, one not-at-issue meaning is reserved for formal contexts ("*Your Honor*", the other informal ("*fucking*"). We can model the honorific title *Your Honor* and the expressive phrase *fucking idiot* with the following values.

(28) a. $[\![\textit{Your Honor}]\!]^c$ = [.8, 1]. A^c is a judge.

b. $[\![\textit{fucking idiot}]\!]^c$ = [0, .2] A^c is an idiot.

Despite the fact that the expressive content selects contradictory sections of the register, the sentence receives an interpretation. (27) can most naturally be used in a context where the addressee is expecting a certain respectful register, and the speaker can shift register mid-utterance for the pragmatic effect of rudeness. The contextual effect of heightened contrast is analogous to the effect from contrasting pronouns in languages with grammatically encoded formality.

What this result ends up meaning is that expressive content is more elastic in certain respects than presuppositional content. Because expressive content can be accommodated, speakers are able to provide contrasting updates without crashing the global derivation.

4 Conclusion

In this paper, novel mismatch data has been introduced that shows formality on pronouns cannot be a matter of operator-variable binding. I have argued that each pronoun introduces an expressive meaning, and that mismatching expressive content creates a conversational implicature. This conversational implicature can be interpreted in context as the speaker being rude, or shifting their formality, or possibly joking, depending on the contextual reasons that a speaker might want to shift formality within the same sentence. This implicature seems to be a discourse general feature, and can be applied to other situations where expressive content clashes within the same sentence, even in languages without grammaticalized formality.

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