Honorifics without [HON]

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Received: 24 January 2021 / Accepted: 10 December 2022 / Published online: 10 January 2023 © The Author(s) 2023, corrected publication 2023

Abstract

Honorifics are grammaticalized reflexes of politeness, often recruiting existing featural values (e.g. French recruits plural *vous* for polite address, and German, third person plural *Sie*). This paper aims to derive their cross-linguistic distribution and interpretation without [HON], an analytical feature present since Corbett (2000). The striking generalization that emerges from a cross-linguistic survey of 120 languages is that only certain featural values are ever recruited for honorification: plural, third person, and indefinite. I show that these values are precisely those which are semantically unmarked, or presuppositionless, allowing the speaker to consider an interlocutor's *negative face* (Brown and Levinson 1978). I propose an alternative analysis based on the interaction between semantic markedness, an avoidance-based pragmatic maxim called the Taboo of Directness, and *Maximize Presupposition!* (Heim 1991) to derive honorific meaning.

Keywords Honorification \cdot politeness \cdot semantic markedness \cdot phi-features \cdot pragmatics \cdot presupposition

1 Introduction

Honorifics are grammaticalized reflexes of politeness, a phenomenon present in many languages of the world. This can be illustrated with French. For one addressee, speakers use the singular pronoun tu for plain address (1) but the plural pronoun vous for polite address (2). (2) also shows that this is grammaticalized, as this usage of the plural for politeness obligatorily triggers corresponding plural verbal agreement.¹

¹Abbreviations: A3: agent (Assiniboine); ABL: ablative; ABS: absolutive; ACT: active voice; ASSERT: assertive sentence-final particle (Ainu); ASSOC: associative; AUX: auxiliary; CAUS1: single causative (Kambaata); CLS: classifier; COMP: complementizer; COP: copular; DAT: dative; DEF: definite; DEFOC: defocusing affix; DS: different subject (Kambaata); DU: dual; ERG: ergative; EXCL: exclusive; EXCLAM: excla-

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Table 1 Attested honorification systems	Cateogry	Honorific	Non-honorific
	Number	PL	SG
	Person	3rd	1st, 2nd
	Definiteness	INDEF	DEF

(1) As tu le livre? have.PRES.2SG 2SG the book 'Do you have the book?'

(plain singular address)

(2) Avez/*As vous le livre? have.PRES.2PL/SG 2PL the book 'Do you (HON) have the book?' (Lit.: 'Do you all have the book?')

(polite singular address)

Here, honorific *vous* triggers a number mismatch: even though *vous* is *grammatically* plural, it is *referentially* singular. We will see that honorifics display *mismatches* between a pronoun's grammatical value and its referential value (this is often the means by which they are detectable). However, the expression of honorification is not limited to plural, as honorifics assume various guises in other languages.

Section 2 illustrates mismatches in the categories of number, person, and definiteness across 90 languages. The main empirical contribution of this paper is the following. While honorifics have diverse manifestations, this diversity is neither random nor unconstrained. Languages have the choice between multiple grammatical categories, but only certain values within these categories are recruited for honorification: honorification systems are constrained to the profiles given in Table 1.

Thus, French is a language which recruits its number opposition for honorification: singular is used for familiar address (1), while plural is used for polite address (2). Languages like Italian recruit its person opposition: second person is used for familiar address (3a), but third person is used for polite address (3b). This is seen from person agreement on the verb, which requires third person agreement in the polite case, creating a person mismatch.

(3) Italian (Pietro Baggio, p.c.)

a.	Alessan	dro, sei/*è	contento?	
	А	2 sg/ 3 sc	G.COP happy.MASC	
	'Alessar	ndro, are you	happy?'	(familiar)
b.	Signor A	Alessandro, è	/*sei contento?	
	sir A	A 3	SG/ 2 SG.COP happy.MASC	

mation; FAM: familiar (Muna); FEM: feminine; FUT: future; GEN: genitive; HAB: habitual; HON: honorific (for lexicalised honorifics); ICO: imperfective coverb (Kambaata); ICP: instrumental-comitative-perlative (Kambaata); IMP: imperative; IMPERS: impersonal; IMPF: imperfective; INCL: inclusive; IND: indicative; INDEF: indefinite; INF: infinitive; JUSS: jussive; LOC: locative; MASC: masculine; NEG: negative; NOM: nominative; NOMLZ: nominalizer; NPC: non-past completive (Mparntwe Arrente); NSG: nonsingular; OBJ: object; PART: particle; PASS: passive; PC: paucal; PF: perfect; PL: plural; POL: polite; POSS: possessive; POT: potential; PRES: present; PROG: progressive; PROH: prohibitive; REAL: realis; RECIP: reciprocal; RE-FLX: reflexive; SG: singular SUBJ: subject; TOP: topic; VOC: vocative.

'Sir Alessandro, are you (HON) happy?' (Lit.: 'Sir Alessandro, is **s/he** happy?') (polite)

Languages like Ainu, on the other hand, recruit a definiteness opposition. Pronouns (necessarily definite elements) such as 2PL *ecioka* are used for familiar address (4a), but the indefinite pronoun *an* is used for polite address (4b).

(4)	Air	u (Refsing 1986: 94, 222, adapted)			
	a.	Ecioka rupne nispa-eci ne ruwe			
		2PL be.grown.up man-2PL COP ASSERT			
	'You (all) are grown men'				
	b.	An nu no.oka			
		INDEF ask IMPF			
		'As you (HON) are asking'			
		(Lit.: 'As someone is asking') (polite)			

The generalization that emerges is that languages widely recruit plural number, 3rd person, and indefinites for honorification, but never recruit singular number, first/second person, and definites for the same purposes.

I explain this generalization by observing that attested honorifics are precisely those grammatical values which are the semantically unmarked elements within their categories. Here, semantically unmarked elements are definitionally equivalent to presuppositionally weak elements, a property that allows them to be used in a wider range of contexts. When a speaker favors a semantically unmarked element over a semantically marked one, this avoidance of specificity creates a vagueness as to the speaker's intended meaning. The preference of semantically unmarked (and hence vague) values is due to a social taboo, the Taboo of Directness (ToD), which militates against direct address/reference in all contexts requiring respect. The overall effect is that of social distancing, an effect that lies at "the heart of respect behavior" (Brown and Levinson 1978: 129).

The ToD proposal is extended to domains of politeness beyond respectful address in later sections—covering honorific reference, politeness in languages with articulated number systems (i.e. systems additionally containing dual and/or paucal), avoidance registers, and polite imperatives. This augments the number of total languages under consideration to 120. Each politeness phenomenon is supplemented with a table of languages exhibiting it, so that the phenomenon itself is illustrated along with its typological robustness.

Crucially, *contra* previous research, stipulations specific to the phenomenon of honorification, such as [HON], are unnecessary in this account. The cross-linguistic distribution and interpretation of honorifics are explained with existing concepts. This is the main desideratum of this account: extra grammatical machinery need not be utilized even though social meaning is, intuitively, extra-grammatical.

1.1 Delimiting empirical scope

Before the data is laid out, two delimitations are made regarding empirical scope. This paper focuses on the use of *existing* morphosyntactic features to encode politeness, that is, reappropriations of number and person. This is to be distinguished from politeness phenomena such as allocutive agreement and differentiated speech registers, which I merely outline here.

Firstly, politeness has several grammatical reflexes. Politeness can also take the form of "allocutive agreement," clause-final agreement markers which signal politeness exclusively geared towards addressees. In Japanese, *-masu* signals politeness towards the addressee, and has been analyzed by Miyagawa (2017) as agreement at C.

(5) Otooto-wa ki-**mas**-u. younger.brother-TOP come-**POL**-PRES 'My younger brother will come.'

(Miyagawa 2017: 20, adapted)

In Souletin Basque (Oyharçabal 1993), politeness is not the only social factor indexed by allocutive agreement; the sex of the addressee may be encoded via the same means. While $-\ddot{u}$ - encodes politeness towards an addressee of either sex, -k-is used for addressing a male colloquially and -n- a female colloquially. Allocutive agreement is also found in a handful of other languages, including Jingpo (Myanmar, Tibeto-Burman; Zu 2013), Tamil (India/Sri Lanka, Dravidian; McFadden 2017), and Magahi (India, Indo-Aryan; Deepak and Baker 2018).

Allocutivity is set aside here because it is markedly different from honorific pronouns in the following ways. Allocutivity originates very high in the clause (as in Japanese (5)), while the polite pronouns can originate as low as within VPs (in simple clauses like French (2)). Morphologically, there is no phi-featural recruitment involved in allocutivity; allocutive markers are always specialized markers. Lastly, allocutive markers may additionally mark the addressee's gender (as in Souletin Basque above), while honorific pronouns never make a gender distinction. Several scholars have acknowledged these differences, terming the two types of addressee-related phenomena *utterance- vs. content-oriented markers of politeness* (Portner et al. 2019), or *referent vs. addressee honorifics* (Comrie 1976), for example.

Returning to Japanese, allocutive agreement (which directs politeness towards addressees) exists in parallel with a system of referent honorification (which directs politeness towards referents). In Japanese, politeness can be signaled towards a subject referent via addition of the passive morpheme -(r)are to the verbal complex, as in (6).²

(6) Sensei-ga taore-**rare**-ta. teacher-NOM fall-**PASS**-PAST 'The teacher (HON) fell down/fell ill.'

(Hasegawa 2006: 511)

²Honorification-as-agreement analyses are widespread in the literature on Japanese honorifics (Toribio 1990; Ura 2000; Niinuma 2003; Boeckx and Niinuma 2004; Potts and Kawahara 2004; Hasegawa 2006; Ivana and Sakai 2007; Sakai and Ivana 2009; Volpe 2009; Kishimoto 2010; Thompson 2011), whereby agreement occurs with a feature [HON] or via a Hon⁰ head. The literature on Korean honorification assumes likewise (Ahn 2002; Choi 2010; Choi and Harley 2019; Chung 2009). Wang and Nakamura (2019) offer an alternative view, showing that Japanese honorifics resemble complex nominalizations and passivizations in form, but without the argument structure alternations.

Other functional morphemes can also be recruited to signal politeness; for example, in Tetelcingo Nahuatl, *mo*- normally marks reflexivity (7a) or reciprocality (7b), but can also be recruited for honorification (7c).

(7)	a.	šo- mo -hta-ku kwali nemehwa mismo-s.	
		IMP- REFLX -see-PL goo 2PL same-PL	
		'Take a good look at yourselves.'	
	b.	mo-lwi-a.	
		RECIP-tell-PRES	
		'They tell each other.'	(Tuggy 1979: 23–24)
	c.	to- mo -ciwt-li-a.	
		2SG-HON-do-APPL-PRES	
		'You (HON) do it.'	(Tuggy 1979: 94)

Politeness may also have lexical reflexes, which are found in languages with speech levels. Javanese distinguishes basic (*ngoko*), polite (*krama*), and super-polite (*krama inggil*) speech styles, with an intermediate style (*madya*). The forms of pronouns and certain predicates differ across speech styles. This is illustrated with variants of the sentence 'I see you,' which are truth-conditionally equivalent but not so-cially so (Suharno 1982: 113, adapted):

(8)	aku	wəroh	kowe.	basic (<i>ngoko</i>)
	kulo	sumərəp	sampeyan.	polite (krama)
	daləm	sumərəp	panjənənan.	super-polite (krama inggil)
	Ι	see	you	

In the honorific register of Pohnpeian (Oceanic), certain predicates differ lexically depending on the social status of the addressee. This is shown for 'to eat' below (Keating and Duranti 2006: 151):

(9)	Commoner	mwenge
	Low-status	tungoal
	Chief	koanoat
	Chieftess	pwenieu
	2nd chief/chieftess	sak

Moreover, the socio-cultural conditions governing the use of honorifics is highly variable. In most European languages, the honorific form is used towards individuals of higher social standing and/or non-intimates. In other languages, the use of honorifics may be additionally governed by factors such as age (e.g. in Korean, Acehnese), caste (e.g. in South India), discourse context (whether the conversation takes place in a casual, formal, or ceremonial setting), familiarity (e.g. in Polish), and kinship relations (e.g. in Aboriginal Australia). Hence, while speakers of French direct honorifics towards persons of higher social standing and non-intimates, speakers of Guugu Yimidhirr, for example, only do so towards fathers-in-law and brothers-in-law. Alternatively, honorifics may be directed towards situations instead of individuals: speakers of Warlpiri use certain honorifics only in ceremonial contexts (specifically, in initiation ceremonies, where boys are formally initiated into manhood). Moreover, the use of honorifics may be either reciprocal (e.g. in in-law avoidance registers) or non-reciprocal (e.g. in South India). In all cases, though, the absence of an expected honorific is deemed inappropriate or offensive.

With regard to diversity of forms, this paper restricts its empirical scope to morphosyntactic reflexes of politeness, that is, honorific uses of morphosyntactic features like number and person. With regard to the socio-cultural factors conditioning the use of such honorifics, I merely touch upon these aspects; focusing instead on deriving the formal representation and interpretation of honorifics.

Section 2 presents novel cross-linguistic data from my typology of honorific pronouns, showing that plural, third person, and indefinite pronouns are widely recruited for honorification; conversely, singular, first/second person, and definite pronouns are never recruited. Section 3 briefly reviews previous analyses based on [HON] and highlights some inadequacies. Section 4 proposes an alternative analysis based on the interaction between semantic markedness, an avoidance-based pragmatic maxim called the Taboo of Directness, and *Maximize Presupposition!*. Honorificity is thus not derived from a [HON] feature, but from a morphopragmatic algorithm. Section 5 extends the basic proposal beyond singular-plural number systems to articulated number systems further using dual and/or paucal for honorification. Section 6 highlights open challenges and avenues of future work. Section 7 concludes and outlines a new research agenda.

2 The typological picture

This section presents a typology of morphosyntactic honorification strategies in the pronominal domain, totaling 90 languages from >35 genera. The honorific uses of number, person, and definiteness will be illustrated in turn. It was mainly informed by descriptive grammars, typological overviews, and anthropological studies; native speakers were consulted whenever possible.

The main empirical contribution of this typology is as follows: the expression of honorification does not have dedicated exponents, but *recruits* certain values of existing grammatical categories in these languages. Only plural number, third person, and indefinites may be recruited for honorification.

The following sections present each strategy in turn: honorific uses of plural, third person, and indefiniteness.

2.1 Honorific uses of number

Recall (2), repeated below as (10), showing that plural number is recruited for honorification in French. For polite address towards a singular addressee, the 2PL pronoun *vous* is used, creating a mismatch between literal meaning (plural) and conveyed meaning (singular and honorific).

(10) French honorific plural

Avezvous lelivre?have.PRES.2PL 2PLthe book'Do you (HON) have the book?'

This pattern is well attested for several other European languages, where 2PL pronouns can be used to respectfully address one person. In some cases, the respectful form is capitalized in the orthography. Such pronouns include Lithuanian $j\bar{u}s$; Swedish *Ni*; Russian *Vy*; Slovenian *Vi*, Sorbian *wy*; Czech, Slovak, Bosnian *vy*; Serbian *vi*; Italian (southern dialects) *voi*; Belarusian *vei*; Ukrainian, Macedonian, Bulgarian *vie*; and Finnish *te*.

However, honorific plural is not just restricted to Europe. It is in fact a crosslinguistic trend, being the most frequent honorification strategy across the world's languages, found in geographically and genetically unrelated languages. In Assiniboine (Canada/USA, Siouan), plural is recruited for honorific reference towards inlaws (11); in Malayalam (India, Dravidian), for honorific reference towards respected persons (12); in Koromfé (Burkina Faso, Volta-Congo) for village chiefs (13).

(11)	Assiniboine honorific plural	
	mik ^h ų o'ínažį Ø-yá- pi	-kta Ø-káya- pi .
	my.mother-in-law town A3-go-I	PL-POT A3-say-PL
	'My mother-in-law said she (HON) is going to town.'
		(Cumberland 2005: 146)
(12)	Malayalam honorific plural	
	Avar oru prasiddha kalaakaar	i aanə.
	3PL .FEM a famous artist	be.PRES
	'She (HON) is a famous artist.'	(Asher and Kumari 1997: 259)
(13)	Koromfé honorific plural	
	ba -gondu.	
	3PL-left	
	'He (HON) has left.'	(Rennison 1997: 246)

In Warlpiri (Australia, Pama-Nyungan), plural can be recruited for either honorific address (14a) or honorific reference (14b) towards coinitiates. The same pertains for Wolaytta (Ethiopia, Omotic), where plural is used for honorific address (15a) or honorific reference (15b).

- (14) Warlpiri honorific plural
 - a. ngana-ngku-**nyarra** ngarrurnu yarlpurru-pardu? who-ERG-**2PL**.OBJ told coinitiate-DEF 'Who told you (HON), (my) agemate-brother?'
 - b. Yuka-ya, kaji-ka-ngku-lu yarlpurru-pardu-rlu enter-IMP COMP-PRES-2SG.OBJ-PL.SUBJ coinitiate-DEF-ERG nya-nyi. see-PRES 'Get in, or (my) agemate-brother (HON) might see you.' (Laughren 2001: 210–211, adapted)
- (15) Wolaytta honorific plural
 - a. 7inté miiCC-ídeta.
 2PL laugh-PF.2PL
 'You (HON) laughed.'

hagéé 7etaa-g-áá.
 this 3PL-NOMLZ-ABS
 'This is his (HON).'

(Wakasa 2008: 1081)

Table 2 shows that honorific plural is very well represented, robustly present in a geographically and genetically diverse group of languages. Thus, the honorific use of plural is by no means an isolated accident, but a typological trend.

Languages differ on whether honorific plural may be used for self-address, address, and/or reference. Tinrin allows honorific plural for singular address, but not honorific reference. Indian languages such as Kashmiri (Koul and Wali 2006: 51), Kannada (Schiffman 1983: 38), and Malayalam (Asher and Kumari 1997) allow for both. In some languages, the plural of majesty is used for honorific self-reference (cf. "royal *we*" in English). This is also found in Thai, for example, where the first person plural pronoun *jeu:ng* can only be used by royalty for self-reference.

The diacritics on several languages in Table 2 mark number systems aside from singular-plural: number systems can be more articulated, with multiple nonsingulars such as dual (for 'two') and paucal (for 'a few'). \star indicates that the language has a singular-dual-plural system, $\star\star$ a singular-dual-plural system, $\star\star\star$ a singular-dual-plural system, $\star\star\star$ a singular-dual-plural system, and $\star\star\star$ a minimal-augmented system, and $\star\star\star$ a minimal-unit augmented-augmented system.

Recent work in number theory captures the diversity of number systems with different featural representations for each number system (since Hale 1973; Silverstein 1976; Noyer 1992; more recently Harbour 2014). If this line of thinking is on the right track, then Table 2 also shows the *featural* diversity of honorific plural: the "plurals" that are put to honorific uses do not stem from identical formal origins. Since these plurals are featurally distinct, this suggests that the phenomenon of honorific plural is not dependent on how a particular language's number system is formally derived.

³Minimal-augmented pronominal systems include an additional first person pronoun, a "minimal" pronoun. This pronoun exclusively refers to the speaker-hearer dyad. An "augmented" pronoun simply adds a number of others to this dyad. This is exemplified with the independent pronouns of Muna below (van den Berg 1989: 51):

	Minimal		Augmented	
1excl	inodi	ʻI'	insaidi	'I and others'
1incl	intaidi	'You and I'	indaidi-imu	'You and I and others'
2	ihintu	'You'	ihintu-umu	'You and others'
3	anoa	'Him/her'	andoa	'Them'

Thus, minimal-augmented systems are characterized by an inconsistent referential cardinality within each number. Minimal pronouns denote dual in the 11NCL person (denoting the speaker-hearer dyad), singular otherwise. Augmented pronouns have a referential cardinality of >2 in the 11NCL person, >1 otherwise.

Unit augmented is an intermediate number category between minimal and augmented, whose cardinality is 1 more than that of the minimal category. Thus, unit-augmented pronouns denote a trial if they contain the speaker-hearer dyad (and one other), but dual otherwise. This is exemplified by the independent pronouns of Wanyjirra (Australia, Pama-Nyungan, Senge 2015: 214):

	Minimal		Unit augm.		Augmented	
1excl	ngayu	ʻI'	ngaliyarra	'I and other'	nganimba, ngadiba	'I and others'
1incl	ngali	'You and I'	ngaliwula	'You and I and other'	ngaliwa	'You and I and others'
2	nyundu	'You'	nyunbula	'You and other'	nyurrara	'You and others'
3	nyandu	'Him/her'	nyanbula	'Him/her and other'	nyarralu	'Him/her and others'

Region	Family	Language(s)
Africa	Bantu	Tsotsitaal, Chichewa, Nsenga, Bemba, Silozi
	Cushitic	Kambaata, Khimt'anga
	Chadic	Bachamar
	Khoisan	Nama*
	Omotic	Haro, Wolaytta
	Volta-Congo	Gbaya, Koromfé, Kolbila, Sango, Yoruba
Australia	Bunaban	Bunaba
	Pama-Nyungan	Djaru*, Guugu Yimidhirr*, Mparntwe Arrernte*, Nyangumarda*, Warlpiri*, Martuthunira ⁺⁺ , Kuku-Yalanji*, Walpiri*, Wik-Ngathana*
	Mangarayi-Marran	Mangarayi*
Brazil	Cariban	Galibi Carib ⁺
Canada	Athabaskan-Eyak-Tlingit	NE. Athabaskan
Caucasus	Nakh-Daghestanian	Lezgian
Eurasia	Turkic	Turkish
Europe	Baltic	Lithuanian*
	Germanic	Swedish
	Kartvelian	Georgian
	Romance	French
	Slavic	Bulgarian, Czech, Macedonian, Russian, Serbian-Croatian-Bosnian, Sorbian*, Slovak, Slovenian*, Serbian
	Uralic	Finnish
India	Austroasiatic	Jahai*, Khasi, Temiar*
	Dravidian	Malayalam, Kannada, Tamil, Telegu
	Indo-Aryan	Hindi, Kashmiri, Urdu
Indonesia	Polynesian	Mori Bawah, Tukang Besi
Japan	Isolate	Ainu ⁺
Mexico	Otomanguean	Silacayoapan Mixtec
Melanesia	Oceanic	Kaulong*, Tigak*
Micronesia	Micronesian	Ponapean*
Middle East	Indo-Iranian	Persian
Oceania	Oceanic	Sursurunga***, Boumaa Fijian**, Standard Fijian**, Iduna, Tinrin*, Kobon*, Usan
Philippines	Polynesian	Pangasinan ⁺ , Tagalog
USA	Caddoan	Caddo*
USA/Canada	Siouan	Assiniboine
Vanuatu	Oceanic	S. Efate*, Imere*
W. Asia	Sino-Tibetan	Camling*, Cogtse Gyarong*, Dhimal*

 Table 2
 Languages with honorific plural

So far, we have seen that the familiar-polite opposition is encoded with the singular-plural opposition. However, further-refined honorification systems can be encoded in systems with more grammatical numbers. This is the case in many Oceanic languages, which have a dual if not a paucal as well.

In Daakaka (Vanuatu, Oceanic), dual is used for polite address or reference, skipping plural for honorification. In (16a), polite address towards a single in-law shows 2DU *ka* being used instead of 2SG *ko*. In (16b), polite reference towards a single respected person shows 3DU *ye* instead of 3SG \emptyset ; note also the mismatch with the numeral *swa* 'one.'

(16)	a.	Ka -p	min lewed	rame mursi?	
		2DU.SUBJ-POT	drink kava	a.bit	
		'Would you (H	ON) like to d	rink a little kava?'	(von Prince 2015: 404)
	b.	Ye mw-	-i yaap	melumlum swa.	
		3DU .SUBJ REA	L-COP big.n	an quiet one	
		'He (HON) is a	quiet man.'	(1	von Prince 2015: 156–7)

There are also honorification systems which use all nonsingulars for honorification. In Boumaa Fijian (Fiji, Oceanic) (17), the use of higher grammatical numbers is accompanied by an escalating cline in the social hierarchy. In ascending social rank, the respected persons in Fijian society are in-laws, matrilineal kin, and the village chief. The lowest nonsingular, dual, can be used for the address or reference of an in-law, but the highest nonsingular, plural, is exclusively reserved for the village chief.

Boumaa Fijian honorific singular address
 2DU (o)mudrau~(o)drau in-law
 2PC (o)mudou~(o)dou opposite-sex sibling/same-sex elder sibling
 2PL (o)munuu~(o)nuu village chief

(Dixon 1988: 53)

Similarly, either nonsingular can be respectfully used in Imere (Vanuatu, Oceanic), where either dual or plural can be used for respectful address (18a) or respectful reference (18b). This is also shown with the number-suppletive stem 'go': only the nonsingular stem *roro* is grammatical in both examples and the singular stem *fano* is ungrammatical. No additional honorific meaning is indicated with the use of the plural over the dual.

- (18) Imere address and reference
 - a. korua/koteu ku-roro.
 2DU/2PL PF-go.NSG
 'You (HON) have gone.'
 b. raua/rateu ku-roro.
 3DU/3PL PF-go.NSG

'He (HON) has gone.'

(own fieldwork)

Such "articulated" honorification systems provide a rich and nuanced source of typological variation, informing the final proposal in important ways. They are the focus of Sect. 5.

Table 3Languages withhonorific third person	Region	Family	Language(s)
	Australia	Pama-Nyungan	Warlpiri
	Alaska	Yupik	Central Alaskan Yupik
	Europe	Romance	Italian
	S.E. Asia	Malayo-Polynesian	Indonesian, Semelai

2.2 Honorific uses of person

Another grammatical category recruited for honorification is person. Italian, for example, uses third person for honorification, where the verbal agreement is obligatorily 3sG for honorific address. This creates a person mismatch between literal meaning (third person) and conveyed meaning (second person and honorific). This is illustrated in (19).

(19) Italian honorific third person

Signor Alessandro, **è/*sei** contento? sir A **3**SG/**2**SG.COP happy.MASC 'Sir Alessandro, are you (HON) happy?' (Lit.: 'Sir Alessandro, is **s/he** happy?')

The same pattern is also found in Central Alaskan Yupik (Alaska, Yupik) (20).

(20)

Central Alaskan Yupik honorific third person ner'-**uq**=am! (=*n*i̇́ýýù*qqam*) eat-IND.**3**SG=again 'You (HON) are eating again!' (Miyaoka 2012: 876)

The number of languages which use honorific third person are fewer than those which use honorific plural. Nonetheless, the relevant languages do not constitute a geographically or genetically homogeneous group, as Table 3 shows.

2.3 Honorific uses of indefiniteness

The last type of honorification strategy to be presented here is that of honorific indefiniteness. In this strategy, a specific, respected person is referred to with an indefinite, creating a mismatch between literal meaning (indefinite) and conveyed meaning (definite and honorific). This is illustrated for Ainu (Hokkaido, isolate), where the indefinite pronoun *an* can be recruited for honorific meaning (21).

(21) Ainu honorific indefinite

Annu no.oka ...INDEF ask IMPF'As you (HON) are asking...'(Lit.: 'As someone is asking...')(Refsing 1986: 222, adapted)

What I am terming honorific "indefiniteness" here also includes instances of honorific uses of impersonals. In Caddo, the "defocusing prefix" may be used towards an

Region	Family	Language
Africa	Afro-Asiatic	Kambaata
	Khoisan	Khwe
Japan	Isolate	Ainu
N. America	Athabaskan-Eyak-Tlingit	Navajo, NE. Athabaskan, W. Apache, Wailaki
	Caddoan	Caddo

Table 4 Languages with honorific indefiniteness

impersonal reading (22a). However, such a sentence has two more possible interpretations: honorifying an addressee (22b) or a referent (22c).

(22) Caddo honorific impersonal

dikat- **yi**- 'a- 'nih- hah? (*=dikadiinihah*) what- **DEFOC**- AGENT- do- HAB

- a. 'What is one doing?'
- b. 'What are you (HON) doing?'
- c. 'What is he/she (HON) doing?'

(Chafe 1990: 64, adapted)

Kambaata exhibits a similar ambiguity. First note that Kambaata has an honorific plural, so that 3PL verbal agreement is used for a respected referent. When this occurs, as in (23) below, then the agreement used for impersonal subjects also appears. The resulting sentence has both impersonal (23a) and honorific (23b) interpretations. (The example below is one with *pro*-drop, and is thus only compatible with previously mentioned referents.)

(23) Kambaata honorific impersonal

Qeer-s-éen moog-éenno. become.deep-CAUS1-**3PL** bury-**3IMPERS**.IMPF

- a. 'One buries it deeply.'
- b. 'S/he (HON) buries it deeply.' (Treis 2008: 332)

Honorific indefiniteness has also been reported for several Athabaskan languages, where the category of "fourth person" (normally used for generic statements, indefinite referents, and/or absent referents) is recruited for honorification. This is found in Navajo (Goossen 1995: 53, 283), Western Apache (De Reuse and Goode 2006: 348), and Wailaki (Begay 2017: 174). Unfortunately, no examples were provided, and I cannot replicate any for the reader here.

Table 4 summarizes the known uses of honorific indefiniteness found in my survey. It is again notable that these languages are geographically and genetically heterogeneous.

2.4 Combinations across, and within, languages

Cross-linguistic data shows that honorifics do not have their own exponents. Rather, plural, third person, and indefiniteness—grammatical categories which independently have non-honorific meanings—are *recruited* as honorification strategies in these languages.

Strikingly, we find more elaborated honorific systems which provide further support for the reality of these recruitment patterns. In one type of system, the two strategies of honorific plural and honorific third person are *combined*. The result is that 3PL pronouns are used for honorific address. In another type of system, more than one strategy is active *in tandem* for different social contexts requiring honorifics. For example, honorific plural is used for one respected category of persons, but honorific third person is used for another. I will go through each type of system in turn.

German is a language which combines the two strategies of honorific plural and honorific third person. Its 3PL pronoun *Sie* is recruited for honorific address, which obligatorily triggers 3PL verbal agreement (24). This creates a person *and* number mismatch between literal meaning (third person plural) and conveyed meaning (second person singular and honorific).⁴

(24) German honorific third person plural

Sind/*Bist Sie müde? 3PL/2SG.COP 3PL tired 'Are you (HON) tired?' (Lit.: 'Are they tired?')

The same pattern is found in Norwegian (Norway, Germanic), where its 3PL pronoun, *De*, is recruited for honorific address.

(25) Norwegian honorific third person plural

Er **De** syk? COP **3PL** sick.SG 'Are you (HON) sick?'

(Nathan Young, p.c.)

In my survey, other instances of honorific third person plural are found in certain dialects of Slovenian (Slovenia, Slavic) and Tagalog (Philippines, Polynesian).

Readers might notice that Tagalog was already listed as a language which uses honorific plural in Table 2. This is because Tagalog uses honorific plural and honorific third person plural in tandem: both are equally available options. Thus, for honorific address, both 2PL *kayó* and 3PL *silá* are valid polite substitutions for 2SG *ikáw* (Schachter and Otanes 1972: 90–91).

Resembling Tagalog in this regard are Slovenian (mainly spoken in Slovenia, Slavic) and Ilocano (Philippines, Polynesian). In Slovenian, the 2PL pronoun *Vi* is used for honorific singular address, and Priestly (1993: 414–415) notes that 3PL

⁴In German, honorific *Sie* is phonologically identical to two other pronouns: 3SG.FEM *sie* and 3PL *sie*. However, it is clear that the honorific pronoun is built on 3PL, becuase 3PL verbal agreement is triggered, not 3SG agreement. Orthographically, honorific uses of the 3PL pronoun is capitalized.

Onikanje is also a valid substitution in some dialects.⁵ In Ilocano, both 2PL *dakayo* and 3PL *isuda* can be used for honorific singular address (Rubino 1999: 52), where the 3PL substitution is considered more formal than the 2PL one.

In addition to combining number with person for the purposes of honorification, languages can also combine number with indefiniteness. Exemplifying this is Caddo, where honorific indefiniteness is used for one in-law (26a), but honorific plural is used for two in-laws (26b). The following example illustrates this for honorific reference, but the same pertains for honorific address as well.

(26) Caddo

a.	dikat- yi -	'a-	'nih- hah? (=a	likadiinihah)
	what- DEFO	C- AGEN	T-do- HAB	
	'What are yo	u (HON) doing?'	
	(Lit.: 'What	is one d	oing?')	
b.	kúyt- 'a=	wa=	= dih- hah? (= <i>kúy</i>	t'awadihah)
	where- AGE	T= PL=	e go- HAB	
	'Where are t	hem two	(HON) going?'	
	(Lit.: 'Where	e are the	y all going?')	(Chafe 1990: 65–6, adapted)

Also combining honorific uses of phi-features with indefinites is Kambaata (S. Ethiopia, Afro-Asiatic): it exhibits 2PL verbal agreement for honorific address, but impersonal verbal agreement for honorific reference.

(27) Kambaata

a.	Á'nnu	kánne	e ang-á-'nne	barg- iteenáni -yan	
	2pl.nom	1 here	hand-FEM.AC	C-2PL.POSS add-2PL.ICO-DS	
	án	ká'e	kaa'll-áamm.		
	1sg.nom	л there	help-1SG.IMPF	1	
	'While y	ou (HC	N) are helping	here, I will help there.'	
b.	Íssa	qeh-ć	on	ha'mm-ichch-ú	
	3pl.nom	1 chop	oing.tool-FEM.I	CP enset.corm-SG-M.ACC	
	dass- éenno .				
	chop-3IM	APERS	.IMPF		
	-			t corm with the qehúta.'	
				(Treis 2008: 331–2, adapted)	

Lastly, languages can also have distinct honorification strategies operating in tandem, each reserved for different interactional contexts. Exemplifying this is Warlpiri (Laughren 2001), where honorific plural and honorific third person are both active. The strategy of honorific third person is used only if the interaction is taking place within a ceremonial context; for example, in initiation rituals, where boys are initiated into manhood. Within such ceremonies, the speaker addresses other participants with a 3SG pronoun. In contrast, the strategy of honorific plural is used for everyday contexts where politeness is required; for example, if the speaker is addressing anyone related by marriage, or anyone who was co-initiated with the speaker.

⁵Corbett (2000: 226, fn. 4) also notes that the 2DU pronoun *Vidva* can be used for honorific singular address in the written language, but no examples of this were given.

This concludes the main empirical section of this paper. Many other strategies (such as reflexivization, passivization) also formed small typologies (n < 10), but these are not so robustly attested, and are left for future work.⁶

2.5 Generalizations

In the previous sections, we have seen that honorifics may recruit values across a range of categories spanning person, number, and definiteness. Strikingly, certain values within these categories are never recruited for honorification. Hence, languages show considerable diversity in the grammatical features recruited for honorification, but this diversity is constrained and non-arbitrary. Generalizations that emerge from the typology are stated below:

(28) Unattested honorifics

- a. Singular is never recruited for honorification.
- b. First person and second person are never recruited for honorification.
- c. Definites are never recruited for honorification.

To appreciate these generalizations, consider the potential empirical profiles of unattested honorification systems.

For number, recall that French uses plural *vous* for honorifying a single addressee (it can also be used to honorify multiple addressees). However, we never find a language French', where the second singular pronoun is used for doing so, which would resemble (29).

(29) French' honorific singular

*As tu le livre? have.PRES.2SG 2SG the book *Intended*: 'Do you all (HON) have the book?'

Neither do we find languages where third person singular pronouns are used to honorify multiple referents. Such gaps are captured by (28a): singular is never recruited for honorification.

For person, recall that Italian uses third person for honorific address. But we never find a language like Italian', where first person is used for honorific address, which would look like (30a). Moreover, we never find second person used for honorific reference, which would resemble (30b).

(30) Italian' honorific first/second person

a. *Signor Alessandro, sono contento? sir A 1SG happy.MASC *Intended*: 'Sir Alessandro, are you (HON) happy?'
b. *Sei Signor Alessandro contento? 2SG sir A happy.MASC *Intended*: 'Is Sir Alessandro (HON) happy?'

 $^{^{6}}$ For interested readers, honorific passivization was illustrated by Japanese in (6), while honorific reflexivization was illustrated by LANG in (7).

The absence of the patterns in (30) exemplifies (28b): first and second persons are never recruited for honorification.

Lastly, for indefiniteness, recall that Ainu uses the indefinite pronoun *an* for honorific address. But again, never do we find a language like Ainu', where pronouns (which are necessarily definite) are used to honorify indefinite persons, as in (31).

(31) Ainu' honorific definite

*Eani nu no.oka ... 2SG ask IMPF *Intended*: 'As someone (HON) are asking...'

This is due to (28c): definites are never recruited for honorification.

Even in languages with combinations of distinct honorification strategies, the attested combinations do not deviate from the generalizations in (28). For combinations of honorific plural and third person, recall that German uses 3PL for honorific address. There is no language German', which uses 1PL or 1SG for doing so which would defy (28a) and (28b). For combinations of honorific plural and indefiniteness, neither is there a language Caddo', which uses demonstratives to honorify one inlaw, and 2SG to honorify two in-laws. This is because definites and singular number are never recruited for honorification, and hence form an illicit combination, which would defy (28a) and (28c).

Rather, the only options in these grammatical domains are honorific uses of nonsingulars (Sect. 2.1), third person (Sect. 2.2), indefiniteness (Sect. 2.3), or combinations of these (Sect. 2.4). Even though other honorification systems are logically possible, they are never attested in these languages. The distribution of honorifics, then, is highly restricted despite the wide range of grammatical categories recruited. This restriction will be the main explicandum of this paper. Section 3 briefly reviews previous proposals. Section 4 works towards a principled analysis of honorifics, arguing that honorifics actually form a natural class, consisting only of elements which are semantically unmarked.

3 Previous analyses

Previous analyses of honorific pronouns typically assume a feature specialized for honorification: for example, Simon (2003) and Ackema and Neeleman (2018) assume [HON] in their representations of honorific pronouns. Macaulay (2015a) takes a similar stance, assuming the feature [STATUS]; with Portner, Pak and Zanuttini (2019) proposing [formal].

Corbett (2012) takes a more cautious approach, considering a [HON] feature only for a handful of languages (some of these are illustrated in Sect. 6.4). Others do not situate their honorific feature in the morphosyntax, but in the expressive dimension within a multidimensional semantics (e.g. Potts 2005; McCready 2019). Nongenerativist perspectives (e.g. Listen 1999: 44) use conceptual metaphors such as POWERFUL IS PLURAL to capture honorific uses of plural.

Here, I review two recent proposals in detail: the impoverishment-based proposal of Ackema and Neeleman (2018), and the agreement-based one of Portner, Pak and

Zanuttini (2019). Both assume a grammatical feature dedicated to honorification, and are critiqued in light of the typological findings from Sect. 2.

3.1 Ackema and Neeleman (2018): Impoverishment

For Ackema and Neeleman (2018) (henceforth A&N), the grammatical feature [HON] is included in the representation of all honorific pronouns, formally distinguishing plain from honorific pronouns. [HON] is on par with other pronominal features, such as those of number and person. However, [HON] does not affect reference, merely indicating that the members in its set are honorable. (A&N develop their own features for person and number, but their analysis of honorifics is fairly theory-neutral.)

As we have extensively seen, a hallmark of an honorific pronoun is the mismatch it creates. A&N explain such mismatches with *impoverishment*, where [HON] conditions deletion of the offending feature, either at LF or PF.

Consider how this works for, say, French honorific *vous*, which exhibits a number mismatch. A&N assume that, whereas plain *vous* contains features for a second person plural denotation, honorific *vous* additionally contains a [HON] feature. In honorific contexts, [HON] triggers deletion of the plural feature. This is termed *LF impoverishment*, which conditions deletion of features after syntax but before interpretation, as in (32).

$$(32) \quad PL \to \emptyset / [_HON] \qquad (at LF)$$

The resulting pronoun is number-neutral, concordant with the interpretation of honorific *vous*: it can be used respectfully towards one or more addressees. This can be seen from variable number agreement on the adjective. If *vous* is respectfully directed towards one addressee, adjectival agreement is singular (33a). Towards multiple addressees, adjectival agreement is plural (33b).

(33)	a.	Vous êtes loyal .	
		2.HON COP.2PL loyal.SG	
		'You (HON) are loyal.'	(honorific singular address)
	b.	Vous êtes loyaux .	
		2.HON COP.2PL loyal.PL	
		'You all (HON) are loyal.'	(honorific plural address)

This also explains why honorific *vous* obligatorily triggers plural verbal agreement, as this impoverishment happens at LF, after syntactic agreement has taken place. The variable adjectival agreement is taken to be semantic agreement (see Ackema 2014; also Wechsler 2011 on notional agreement).

Consider further how this would work for German honorific *Sie*, which creates both number and person mismatches when deployed for honorific address. Whereas plain *sie* contains features for a third person plural denotation, honorific *Sie* additionally contains a [HON] feature. In this case, impoverishment takes place at PF. [HON] triggers impoverishment of the feature responsible for a second person interpretation (in their framework, the [PROX(IMAL)] feature) at PF (34a), so the resulting pronoun is phonologically identical to the third person plural pronoun *sie*. This eliminates the person mismatch. Another dose of impoverishment, this time at LF (34b), derives the desired number-neutrality, eliminating the number mismatch.

(34)	a.	$PROX \rightarrow \emptyset / [_DIST HON PL]$	(at PF)
	b.	$PL \rightarrow \emptyset / [-HON]$	(at LF)

PF impoverishment allows honorific *Sie* to lead a double life: it is phonologically identical to third person plural, but syntactically identical to a second person plural. This is because PF impoverishment only establishes a surface similarity to 3PL *sie*: the authors cite Simon (2003) in observing that honorific *Sie* syntactically behaves like the second person plural pronoun, *ihr*, rather than the third person plural pronoun, *sie*. Evidence is given from close appositions (35a–b) and relative clauses (36). In both constructions, the distribution of honorific *Sie* patterns with that of 2PL *ihr*, away from that of 3PL *sie*.

(35)	a.	ihr/Sie Finnen
		2PL/HON Finns
		'You (plural)/you (HON) Finns' red
	b.	*sie Finnen
		3PL Finns
		Intended: 'them Finns'
(36)	a.	ihr/Sie, die *(ihr/Sie) Bücher samm
		2PL/HON, who 2PL/HON books colled

neln, besitzt fünf Ausgaben five editions own ct der Bibel the.GEN Bible 'You (plural)/you (HON), who collect books, own five editions of the bible. Sie, die (*sie) Bücher sammeln, besitzt fünf Ausgaben der b. 3PL, who 3PL books collect own five editions the GEN Bibel.

Bibel. Bible *Intended*: 'They, who collect books, own five editions of the bible.'

Although, it remains a mystery under A&N's account as to why honorific *Sie* is incompatible with second person plural verbal agreement (37).

- (37) a. *Seid Sie müde? COP.2PL HON tired Intended: 'Are you (HON) tired?'
 - *Sie geht zum Platz.
 HON go.2PL to.the square
 Intended: 'You (HON) are going to the square.'

In sum, A&N's proposal of recruited honorifics rests on the assumption that [HON]-conditioned impoverishment (at LF or PF) resolves the mismatches that recruited honorifics create.

A&N's account does have adequate empirical coverage, as it ensures that certain values can never be a target of impoverishment for the following reasons. (It remains a mystery as to why definites are never recruited for honorification (28c), but honorific uses of indefiniteness were not within their empirical scope.) The privative view of number adopted by A&N accounts for (28a) naturally. Plural forms are specified via

a PL feature. The absence of a feature has interpretative effects, so that the absence of plural implies singular. Since singular is never specified in syntax, it can never be the target of impoverishment. This explains why singular pronouns are never recruited for honorifics.

As to why first and second persons are never recruited for honorification, A&N give functional explanations. Second person singular pronouns are never recruited for honorific singular address, as the intended respectful effect would not be detectable via a mismatch. Neither are first person singular pronouns, due to learnability considerations: a mismatch is necessary for a pronoun to be interpreted as honorific. But a mismatch is never possible for the first singular, as it is always interpreted as the speaker, making its acquisition as a honorific "difficult if not impossible" (Ackema and Neeleman 2018: 46). Since honorification is definitionally equivalent to grammaticalized social meaning, this social meaning would be difficult to detect if there were no grammatical indications in the form of a mismatch.

However, such explanations are not fully satisfactory. A mismatch would be detectable if second person pronouns were recruited for honorific *reference* (honoring a third person), but this is unattested. Two further aspects of the proposal are problematic: [HON] is an unusual morphosyntactic feature, having none of the typical properties of its ilk, and the impoverishment approach derives unattested honorification systems. I turn to these below.

3.2 An unusual feature, an unusual operation

By assuming that [HON] triggers impoverishment, A&N is able to account for why mismatches are typical for honorifics. Here, I review the consequences of assuming [HON], and the impoverishment operation it triggers. We start by observing that [HON] is highly unusual as a grammatical feature, patterning away from other well-established features with regard to its phonological and syntactic properties.

Let us first consider phonological properties, comparing [HON] to better-established features such as [PL]. In many languages, plurality has dedicated exponence, whether they are pronominal or nominal markers of plurality. A few examples of pronominal plural markers are Yauyos Quechua *-kuna* (Shimelman 2017), Tok Pisin *-pela* (Wurm and Mühlhäusler 1985: 343), Vietnamese *chúng*, Burmese *-tyev* (Cooke 1965); examples of nominal plural markers are Vietnamese *nhung*, Burmese *dowq* (Cooke 1965).

However, Sect. 2 showed that this is not the case for [HON]; rather, languages extensively *recruit* existing exponents. Thus, there is little phonological basis for assuming [HON] as a dedicated grammatical feature, if we assume that syntactic features generally have their own exponents.

What about languages which do have dedicated exponents for honorification? In many European languages, the pronoun for honorific address is not recruited from any existing part of the pronominal paradigm. Well-known examples include Spanish *usted*, Portuguese *Você*, Romanian *dumneavoastră*, Dutch/Afrikaans *u*, Polish *Pan/Pani*. For such pronouns, it seems reasonable to assume that [HON] serves to formally distinguish them from their non-honorific counterparts. Indeed, A&N assume dedicated spell-out rules for these honorifics without making use of impoverishment. Let us call such forms *lexicalised honorifics*.

Despite the dedicated exponence, dedicated syntactic reflexes are still lacking. Syntactic features usually drive many formal operations (e.g. movement, concord, agreement). For example, [wh] triggers *wh*-movement. Plural is well-known for having syntactic effects, such as triggering plural concord. Plural number also participates in omnivorous agreement, where one plural marker may cross-reference more than one plural argument (e.g. Nevins 2011), a phenomenon exclusive to singular number.

[HON] does not have any of these syntactic repercussions. As far as I know, no language exhibits syntactic movement triggered by the presence of a honorific pronoun. When a language recruits a pronoun for honorification, the language does not display specialized honorific agreement either.⁷ Consider Spanish *usted*: when used for honorific address, it obligatorily triggers 3SG agreement, creating a now-familiar person mismatch (38). For such pronouns, then, A&N must assume that impoverishment selectively targets verbal agreement, but not the pronoun itself.

(38) ¿**Tiene/*tienes** usted la hora? have.**3**SG/**2**SG 2.HON the time 'Do you (HON) have the time?'

However, the lack of dedicated honorific agreement is due to the fact that many European honorific pronouns originate from nominals referring to purported traits or virtues, such as 'grace,' 'lordship,' or 'holiness.' Lexical material is recruited and subsequently grammaticalized. (Since I only mention their diachronic history here, I return to the question of their synchronic representation in Sect. 6.3.) Penny (1991: 125) documents this in detail for Spanish, where the expression *Vuestra Merced* 'your mercy' reduced gradually into the present-day pronoun *usted*, used for singular honorific address: *Vuestra Merced* > *vuessa merced* > *vuessansted* > *vuessa*

This process derived pronouns from similar expressions for honorific singular address in related languages, as shown in (39). Note that even though these pronouns were meant for singular address, in many cases the plural possessive pronoun was used, instantiating further instances of plural being recruited for honorification.

- (39) Diachronies of lexicalised honorifics
 - a. Portuguese *Você* (from *Vossemecê* < *Vossa Mercê* 'your.PL mercy')
 - b. Italian Lei (from La Vostra Signoria 'your lordship.FEM')
 - c. Dutch *u* (from *Uwe Edelheid* 'your nobility')
 - d. Romanian variations on *dumneavoastră* and *dumneata* (from *Dumnia Voastra* 'your.PL grace' and *Dumnia Ta* 'your.SG grace' respectively)
 - e. Polish variations on Pan (from moj miłościwy Pan 'my merciful Lord')⁸

⁷To explain this, Ackema and Neeleman (2018: 48) state that impoverishment rules are underspecified for grammatical category, so that they may target verbal agreement as well. But this is tantamount to saying that [HON] does not trigger unique agreement, as it triggers the same process of impoverishment for verbs as it does for pronouns.

⁸*Pan* is used for male addressees and *Pani* for female addressees. Furthermore, *Pan* and *Pani* are not "honorific" in the same sense as the others: they are merely alternatives to the familiar forms, used in any situation where the speaker is not intimate with the addressee.

f. Hebrew adoni (from adon-i 'my master')

These honorifics do not trigger unique honorific agreement, but trigger the agreement that accurately reflects their nominal origins. Such mismatches systematically pertain with Portuguese (40a), Italian (40b), Dutch *u* (40c), Romanian *dumneavoastră* (40d), Polish *Pan* (40e), Hebrew *adoni* (40f). In the Italian example (39b), there is an additional mismatch in gender if it is directed towards a male addressee. This is because *Lei* is grammatically feminine, a remnant effect of the possessive pronoun undergoing gender concord with its feminine head noun *Signoria* 'lordship.FEM.'

(40) Lexicalised honorifics recruit existing agreement

a.	Você vem/*vens . HON come.PRES. 3 SG/ 2 SG 'You (HON) are coming.'		(Pedro de Lima, p.c.)
b.	Lei è/*sei malat-a/*-o.		(Teuro de Linia, p.e.)
0.	HON COP.3SG/2SG sick-FEM/MASC		
	'You (HON) are sick.'		(Pietro Baggio, p.c.)
c.	Heeft/*hebt u een konijn?		
	have.3SG/2SG HON a rabbit		
	'Do you (HON) have a rabbit?'		(Frank Hullekes, p.c.)
d.	Dumneavoastră beți/*bei vin.		
	2.HON drink.2PL/2SG wine		
	'You (HON) drink wine.'		
e.	Pan chyba zwariował .		
	HON perhaps mad.3SG.MASC		
	'You (HON) must be mad.'		(Siewierska 2004: 224)
f.	Im adoni yiten/*titen	li	2-3 dowt
	if 2.HON give.FUT.3SG.MASC/2SG.MASC	me	e 2-3 minutes
	'If you (HON) would give me 2-3 minutes		

For instance, Romanian *dumneavoastră*, being derived from *Dumne* 'lord' and *avoastră* 2PL.POSS, was grammatically 2PL, and so triggers 2PL agreement in (40d). In fact, Romanian has developed a whole host of honorific pronouns which are obviously not dedicated as they vary systematically in person, number, and gender (Stavinschi 2015: 36), in accord with the possessive suffixes which are attached to the feminine noun *dumne* 'lord' via the possessive article *-a*. The agreement of each form reflects their diachronic origins, exemplified for all honorific pronouns as subjects of *a bea* 'to drink' in (41).

(41)	Dumne-a-ta	bei. (drink.2sG)	'You (SG, HON) drink.'
	Dumne-a-voastră	beți. (drink.2PL)	'You (SG/PL, HON) drink.'
	Dumne-a-lui	bea. (drink.3SG)	'He (HON) drinks.'
	Dumne-a-ei	bea. (drink.3SG)	'She (HON) drinks.'
	Dumne-a-lor	beau. ('drink.3PL)	'They (HON) drink.'

In French, a level of politeness higher than *vous* (albeit stilted) is possible with these abstractions, which trigger third person agreement. (42) shows that use of the title *Monsieur* 'sir' for honorific address requires the third person pronoun *il* for co-

reference, creating a now-familiar person mismatch. (43) additionally shows that the grammatically feminine abstraction *Votre Altesse* 'your highness' for honorific address towards a man requires the feminine pronoun *elle* for co-reference, creating mismatches in both person and gender.

(42)	Et Monsieur, qu'est-ce qu'il	désire?
	and Sir what.is-this what.3s	SG.MASC desire
	'Sir, what do you (HON) desire?'	
(43)	Votre Altesse, que désire-t-elle?	,
	Your Highness, what desire-t-3SG	JEEM
	'Your Highness, what do you (HON) desire?' (Siewierska 2004: 222)

We see that lexicalised honorifics never trigger dedicated honorific agreement. Rather, agreement simply reflects the original featural specification of the nominal. This also explains why (37) was ungrammatical: agreement with the German honorific *Sie* cannot be second person plural, as *Sie* is third person plural, contrary to what A&N predict.

Thus, [HON] has a very limited range of applications: it triggers impoverishment of certain features on certain pronouns and verbs, but not movement, concord, or agreement, essentially leaving no morphosyntactic trace behind. In fact, the only operation that [HON] is assumed to trigger—impoverishment—requires some very specific stipulations so that it derives only and all the attested patterns. In particular, LF impoverishment must only target number features, while PF impoverishment must only target person features. I say *must* here, because the two other logical possibilities for impoverishment (that PF impoverishment targets number features; LF impoverishment targets person features) would derive unattested properties of honorifics. I pursue these possibilities below.

Let us first explore LF impoverishment of person, illustrating with Italian. Recall that Italian uses a third person singular pronoun *Lei* for honorific address. Imagine that [HON] conditions LF impoverishment of the third person feature. In A&N's theory of person, impoverishment of the third person feature would result in a bare person node, so that the resulting honorific pronoun would be one which is *person*-neutral: such a pronoun can be flexibly used for honorific self-address, honorific address or honorific reference.

However, person-neutral honorific pronouns are unattested. Italian's third person pronoun *Lei* may only be used for honorific address (44a), but not for honorific reference (44b) or honorific self-reference (44c). (Since Italian is a *pro*-drop language, the following cleft forces an overt pronoun to appear.)

- (44) É Lei che mi ispira a studiare. COP.3SG HON who 1SG.DAT inspire.PRES to study.INF
 - a. 'It is you (HON) who inspires me to study.'
 - b. *'It is him (HON) who inspires me to study.'
 - c. *'It is I (HON) who inspires me to study.' (Pietro Baggio, p.c.)

Note that the impossibility of (44c) is not due to a mere error in verbal agreement. This is because even in the grammatical sentence (44a), there is already a mismatch between the values reflected in verbal agreement (3SG) and the referential force (2SG).

Honorification systems where a honorific pronoun has flexible person designations are unattested—there are no languages in which a honorific pronoun has available all three interpretations in (44a–c).

Next, consider PF impoverishment of number, illustrating with French (a language which would normally require LF impoverishment of plural). [HON] would condition PF impoverishment of the plural feature, establishing a surface similarity with plural *vous*. However, since LF impoverishment has not applied, this pronoun would *not* be number-neutral, and would only have a plural denotation. The lack of number-neutrality is not the case for French *vous*, as (33) demonstrates (repeated below as (45)).

- (45) a. Vous êtes **loyal**. 2.HON COP.2PL loyal.**SG** 'You (HON) are loyal.'
 - b. Vous êtes loyaux.
 2.HON COP.2PL loyal.PL
 'You all (HON) are loyal.'

We do not find any language where a plural pronoun recruited for honorification is used exclusively towards multiple respected addressees. This is not an attested honorification system. Either a language has two unique honorific forms for singular and plural address (as in Spanish *usted/ustedes*), or a recruited form is number-neutral (as in French *vous*, German *Sie*).

In principle, to pair a type of phi-feature with a type of impoverishment is licit. However, once the "wrong" feature is targeted at the "wrong" level of interpretation, then we derive unattested honorification patterns: namely, honorific pronouns which are person-neutral or exclusively plural. These are *ad hoc* stipulations required for an impoverishment analysis for honorifics.

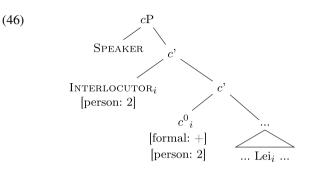
3.3 Portner, Pak and Zanuttini (2019): Agreement

Similar in spirit to A&N's impoverishment analysis is Portner, Pak and Zanuttini (2019) (henceforth PPZ), who also propose a dedicated feature for honorification, [formal], sensitive to whether the interaction calls for formality or not.

Like much previous work on speaker-addressee relations, components of the speech act are assumed to be syntactically encoded (e.g. Speas and Tenny 2003; Haegeman and Hill 2013) so that syntax makes available the (null) abstract representations of SPEAKER and INTERLOCUTOR. PPZ's feature [formal] originates on c^0 , a high functional head above CP, so that c^0P is the syntactic locus for utterance-level meanings. [formal] can be copied onto bound pronouns in the domain of c^0 via an operation similar to Kratzer's (2009) Feature Transmission.

In this analysis, all second person pronouns are bound by INTERLOCUTOR via operator-variable agreement (the operator being INTERLOCUTOR, and the variable being the pronoun). c^0 is the functional head mediating this agreement. Having this

agreement relationship with INTERLOCUTOR is what makes a pronoun second person, as PPZ assume that pronouns are minimally specified when they enter the derivation (\dot{a} la Kratzer 2009). This configuration is illustrated in (46) with the Italian honorific pronoun *Lei*. The honorific, the INTERLOCUTOR head, and the c^0 head are all in an agreement relation involving a [formal] feature.



What determines the form of the honorific pronoun is a set of spell-out rules sensitive to the specification of the binary feature [formal]. When a pronoun is bound by INTERLOCUTOR, and c is valued [-formal], it is spelled out as tu. When a pronoun is bound by INTERLOCUTOR, and c is valued [+formal], it is spelled out as Lei. This is schematized in (47).

(47) a. (pronoun)
$$\rightarrow tu$$
 / INTERLOCUTOR_i ... $c^{0}_{[-\text{formal}]}$... ____
b. (pronoun) $\rightarrow Lei$ / INTERLOCUTOR_i ... $c^{0}_{[-\text{formal}]}$... ____

However, this denies any relationship between polite second person *Lei* and the homophonous informal third person *lei* in Italian. Recall from Sect. 2.2 that *Lei* is a recruitment of third person, but this recruitment is left unexplained in this analysis. As PPZ's analysis relies on highly specific spellout rules for the honorific pronouns of each language, it becomes *ad hoc* as to which pronoun can be bound in the honorificity-producing configuration in (47b). In principle, it is possible for first-person pronouns to be recruited for addressee honorification, but this is typologically unattested, as shown in Sect. 2.5.⁹

As a result, PPZ do not explain the robust typological trends in recruitment; the authors themselves state that their analysis "can't provide a detailed discussion of the mapping between the abstract features and the features on the [polite] pronouns" (Portner et al. 2019: 31). While this was never an analytical goal of [HON]- or

⁹[formal] is carried over from PPZ's analysis of allocutive markers. Yet, PPZ explicitly acknowledge that allocutivity exhibits important distributional differences from honorific pronouns, so it is unclear why the same morphosyntactic features are used for both phenomena, beyond having polite meanings in common. Furthermore, PPZ claim that c^0 , the syntactic locus for utterance-level meanings, is covert in languages with honorific pronouns, and overt in languages with utterance-oriented markers of politeness, predicting a two-way typology in this regard. This predicts that there should be *no* language exhibiting *both* allocutivity and a honorificity distinction in pronouns. Yet Basque is precisely such a language: it has both allocutive markers (*-ü-* for formal situations, *-k-/-n-* for colloquial situations) and a familiar/polite distinction in second person pronouns (*hi/zu*).

[formal]-based theories, leaving the typological trend unacknowledged is an unparsimonious move.

Hence, whether an analysis of honorific pronouns is based on impoverishment triggered by [HON], or agreement involving [formal], a feature dedicated for honorification does not capture—or explain—significant typological trends regarding the shape of honorific pronouns. In some cases, the operation proposed may derive typologically unattested forms. Avoiding dedicated features for honorification, the next section proposes an alternative analysis.

4 Proposal: Honorifics without [HON]

This section puts forward a proposal of honorifics without [HON] or [formal]. The proposal consists of two main ingredients: semantic markedness (Sect. 4.1), and the introduction of an avoidance-based pragmatic maxim, the Taboo of Directness (Sect. 4.2). The analysis is shown to extend to both honorific reference (Sect. 4.3) and to non-pronominal domains (Sect. 4.4). Such an account is shown to have empirical, analytical, and theoretical advantages (Sect. 4.5).

4.1 The emergence of the semantically unmarked

Section 2 showed that plural number, third person, and indefinites are consistently recruited for honorification cross-linguistically. Conversely, singular number, first/second person, and definites are never recruited for honorification.

Here, I show that honorifics do not recruit random values, but *semantically un-marked values*. In what follows, I will show that plural, third person, and indefinites are semantically unmarked. Of course, what is unmarked in a given language may be subject to language-specific variation, but for ease of exposition, I will mostly illustrate with English (although, to establish this in any given language requires detailed semantic fieldwork with the aim of establishing semantic markedness clines, which has not yet been conducted for many other languages).

A *semantically unmarked* element is said to have default or neutral interpretations (e.g. Sauerland 2008b). This means that, given a pair of values in the same category (e.g. SG versus PL in the category of number), the less marked element is compatible with a wider range of contexts because it carries a weaker presupposition than its marked counterpart.

Before we illustrate this notion for phi-features, it is important to clarify that the concept of *semantic* markedness is independent from that of *morphological* or *syntactic* markedness. *Morphological markedness* relates to the presence of overt encoding of some grammatical feature. For instance, plural is said to be morphologically marked, as it is often overt (like English -s). On the other hand, *syntactically marked* categories trigger exceptional syntactic behavior; for instance, plural triggers omnivorous agreement (e.g. in Georgian; Nevins 2011), is susceptible to ϕ -neutralization (e.g. Long Distance Agreement in Basque; Etxepare 2006) and is also more susceptible to agreement errors (e.g. Eberhard 1997; Tucker et al. 2015). Thus, across these distinct notions of "markedness," some form of extra complexity is involved (Haspelmath 2006: 26).

Importantly, it is the notion of *semantic* markedness which is relevant to this proposal. This is an empirical issue: there are no languages in the sample that recruit the morphologically or syntactically unmarked option for honorification. For instance, no language recruits the singular, which is both syntactically and morphologically unmarked.

In singular-plural number systems, plural is said to be semantically unmarked (Krifka 1989; Croft 2003; Sauerland 2003, 2008b; Sauerland et al. 2005; Spector 2007; Zweig 2009; Bale et al. 2011; *a.o.*).¹⁰ This is because the denotation of the plural can entail singular meanings, giving rise to inclusive interpretations of the plural (*one or more*). This shows that plurals are not restricted to exclusive interpretations (*more than one*) as traditionally thought. Consider the monologue in (48), where the speaker is contemplating pet hamsters past and present.

(48) How many *hamsters* do I own?

- a. Just one hamster, I think.
- b. ... Last month the breeder promised an increase in numbers. (sarcastically) I've seen an increase all right, an increase of -2 hamsters.
- c. ... Last year, I owned only an average of 0.5 hamsters per month.
- d. ... (discovering escape of last remaining hamster) Oh no, actually, *zero hamsters*.

(48a) contains a singular NP (*one hamster*). Yet, it is still a felicitous answer to the question containing a plural noun (*hamsters*), showing that the plural form can be felicitously used to inquire about individuals. (48b–d) are also possible answers: even though they denote neither pluralities nor individuals (*-2 hamsters, 0.5 hamsters, 0 hamsters*), plural marking is obligatory. This shows that plural is compatible with a wider range of uses, while singular marking is only compatible with a cardinality of 1 as in (48a).

This number-neutrality of plural forms fits with the observation that honorific pronouns are number-neutral: they can be used to indicate respect towards one or multiple persons. For example, this is the case for French *vous*, as was demonstrated in (33).

Quantificational contexts are also useful here. In scenarios involving mixed categories, the semantically unmarked value surfaces under quantification. Consider (49) with the universal *every*:

(49) Every girl owns hamsters.

(49) is compatible with a scenario where each girl owns exactly one hamster. However, it is also compatible with a mixed scenario, where some girls own exactly one hamster and other girls own multiple hamsters. In such a mixed scenario, plural marking is obligatory, again showing that plural is less marked.

¹⁰Bale et al. (2011) originally concluded that in Turkish and Western Armenian, it is the singular which is semantically unmarked, not the plural. However, Yatsushiro et al. (2017) later disputes this conclusion. This dispute in the literature is noted here as a disclaimer, necessary since the project to investigate semantic markedness cross-linguistically is ongoing. Thanks to an anonymous reviewer for pointing this out.

Thus, (48) and (49) show that the denotation of plural contains that of the singular: plural can refer to and quantify over both non-atomic and atomic individuals, but singular may only refer to and quantify over atomic individuals. Thus, plural is less marked than singular in the category of number.

The quantification test can also be applied to the category of person. In scenarios involving mixed persons, third person agreement surfaces under quantification, showing that third person is the least marked person. Imagine (50) was uttered in a scenario where *us* denotes a mixed-person group of the speaker, the addressee, and a third person. Here, the anaphoric pronoun can only be in third person (*his/her*).

(50) Every one of us has to call *his/her/*my/*your* mother.

(Sauerland 2008b: 72, adapted)

Consider also imposter phenomena (e.g. Collins and Postal 2012; Podobryaev 2017), where third-person expressions can take on first or second person reference. (51) shows that the third-person nominal, *the authors*, may point to first person:

(51) [At a conference] *The authors* will now show that...

Similarly, (52) shows that another third-person nominal, *my one and only*, may point to second person:

(52) [To her boyfriend on Valentine's Day] I give this rose to my one and only.

Crucially, imposters cannot be of any other person: first and second person expressions cannot take on non-canonical points of reference; only third person expressions can. This restriction on the shape of imposters suggest that third person is the least marked person.

Moving onto definiteness, it is widely assumed that definites contain additional presuppositions of uniqueness and/or familiarity compared to their indefinite counterparts (e.g. Strawson 1950; Heim and Kratzer 1998; Heim 2011). (53) illustrates this briefly. The definite article in English can only be felicitously used in a context where there is a salient or previously-mentioned hamster in the discourse (53a). Otherwise, its indefinite counterpart must be used (53b).

- (53) a. I've picked up *the* new hamster from the store.
 - b. I've picked up *a* new hamster from the store.

We see that indefinites are less marked, as they carry weaker presuppositions and can thus be felicitously used in a wider range of contexts.

Since the typology mostly consists of non-European languages, readers may wonder about the validity of the previous examples which were exclusively given in English. Since the proposal is typologically motivated, a note on the universality of these markedness clines is in order. Given practical constraints, I cannot present languagespecific markedness diagnostics for all 120 languages that are eventually considered. In principle, to formulate any language universal is an unattainable goal, given the impossibility of covering all languages and of obtaining negative evidence for each language. However, stipulations of this type are necessary for theoretical work of this type to progress. It is important to note here that the universality of these markedness clines is an assumption, not a proven fact. However, making this assumption is neither controversial nor futile. It is not controversial: all existing work on cross-linguistic semantic markedness, while not comprehensive, finds that plural is semantically unmarked. For instance, Yatsushiro et al. (2017) present experimental evidence supporting the hypothesis that the plural is semantically unmarked across 18 European languages. (Owing to a dearth of relevant work, the universality of third person and indefinites as semantically unmarked is not so clear.) It is not futile: once the uniformity of markedness clines is assumed, the proposal is able to make concrete and testable predictions for possible crosslinguistic variation. Later sections show that my predictions are indeed borne out for all languages in the sample.

Since I claim a close connection between semantic markedness and honorification, I make the following typological predictions: all languages which recruit plural for their honorifics are languages with semantically unmarked plural; all languages which recruit third person for their honorifics are languages with semantically unmarked third person; all languages which recruit indefinites for their honorifics are languages with semantically unmarked indefinites. The semantic unmarkedness of plural, third person, and indefinites are assumed to be universal (*modulo* the disclaimer above).

Summing up, plural number, third person, and indefinites have more inclusive interpretations, as they are more permissive in the range of possible interpretations compared to their counterparts. A formalization of markedness is given below in terms of presuppositional strength. The presuppositions carried by phi-features are given below using Heim's (2008) notation, where presuppositions are stated after a colon. Plural, third person, and indefinites are the semantically unmarked elements, carrying no presupposition.

- (54) Presuppositions on number
 - a. $\llbracket PL \rrbracket = \lambda x_e \cdot x$
 - b. $\|SG\| = \lambda x_e : |x| = 1 . x$
- (55) Presuppositions on person
 - a. $\llbracket 3 \rrbracket = \lambda x_e \cdot x$
 - b. $[\![2]\!] = \lambda x_e : x$ is the hearer of the discourse . x
 - c. $\llbracket 1 \rrbracket = \lambda x_e : x$ is the speaker of the discourse . x
- (56) Presuppositions on (in)definites
 - a. $[INDEF] = \lambda x_e \cdot x$
 - b. $[DEF] = \lambda x_e : x$ is familiar or unique in the discourse . x

Significantly, it is precisely the semantically unmarked values—and *only* these values—that are co-opted for honorification, leading to an emergence of the semantically unmarked in honorific contexts. What enables semantically unmarked elements to be co-opted in this way? The next section addresses this.

4.2 Whence honorific meaning?

It is a common intuition that avoidance, or social distancing, forms the core of polite behaviors. Interactions with respected persons are typically characterized by avoidance behaviors: refraining from direct eye contact and/or physical contact, hedging, circumlocution, being vague, and so forth. Such strategies have been formalized in previous anthropological research by Brown and Levinson (1978) as strategies addressing *negative face*: "the basic claim to territories, personal preserves, rights to non-distraction—i.e. to freedom of action and freedom from imposition" (Brown and Levinson 1978: 61). In this way, *negative politeness strategies* maximize autonomy to the addressee and minimize any potential obstruction that the speaker imposes.

Here I formalize honorific meaning as the result of an interaction between semantically unmarked forms, social taboo, and *Maximize Presupposition* (Heim 1991). The resulting account introduces a morphopragmatic algorithm to derive honorific meaning, in a way that links semantic unmarkedness to negative politeness.

We have seen that cross-linguistically, honorifics are realized by semantically unmarked forms. The present step is to assume that, in contexts requiring respect, there exists a social taboo that militates against direct behaviors, in favor of avoidance behaviors. Call this the Taboo of Directness (ToD), a pragmatic maxim for politeness, formalized in (57):

(57) *Taboo of Directness* (ToD):

In respect contexts, use the form with the weakest presupposition.

When applied to morphosyntactic features, then, ToD will favor the use of semantically unmarked forms over use of semantically marked forms. Recall that semantic markedness was cashed out in terms of presuppositional strength: semantically marked elements carry stronger presuppositions than their unmarked counterparts; making plural, third person, and indefinites semantically unmarked as stated in (54)–(56) above.

ToD derives avoidance behavior as follows. Less semantically marked forms are more compatible with politeness because they have wider denotations and are thus compatible with a wider range of contexts. When a semantically unmarked form is used, then, there is a certain ambiguity as to the precise denotation that the speaker intends. Conversely, if the speaker had chosen to use a more semantically marked form, then there would be no such vagueness: the intended denotation is more precise because the more marked forms are only compatible with specific contexts. This vagueness (via choice of the less marked form), combined with the taboo against specificity (resulting in relinquishment of the more marked form), allows ToD to formally capture the intuition that avoidance is a key component of respect.

Let us illustrate how honorific meaning is derived via use of honorific plural in French *vous* (2), repeated below as (58).

(58) Avez vous le livre? have.PRES.2PL 2PL the book 'Do you (HON) have the book?'

As (56) was uttered in a context requiring respect (in French, this might be a student addressing a professor), ToD applies. In French, ToD is parameterized to apply to the domain of number, where it militates against the use of the singular form (since it is more semantically marked). The speaker must then resort to the remaining alternative, the plural form (since it is less semantically marked). As a pragmatic maxim which picks out the form with the weakest presupposition, ToD shrinks the set of

available forms from SG, PL to PL. The plural verbal agreement which appears is treated as a mere reflex of dependency with plural *vous*. Since ToD enforces the use of *vous* for honorification, agreement upstream will be plural also.

This vagueness is costly, however, particularly because ToD forces the speaker to choose the less marked form whenever possible, regardless of the real-world denotation. Even though the speaker in (2) is aware that her addressee is singular, ToD forces her to use a plural form. By doing so, ToD conflicts with another, more general pragmatic maxim, *Maximize Presupposition!* (henceforth MP!). MP! states that the form carrying the strongest presupposition should be used whenever possible (59):

(59) Maximize Presupposition! (Heim 1991)
 Choose the strongest presupposition compatible with what is assumed in the conversation.

MP! requires the speaker to choose the singular form, because it is the singular which carries the strongest presupposition compatible for the following reason. In the context of one addressee, only the singular form presupposes a cardinality of one; the plural has inclusive semantics and carries no presuppositions about cardinality. If MP! did indeed hold in honorific contexts, we would find none of the mismatches which characterize honorifics.

This means that MP! is flouted in honorific contexts, the culprit being the politeness consideration that is ToD. While featural mismatches have been used throughout the paper to illustrate instances of honorific meaning, a mismatch is not necessary to trigger an honorific inference. Rather, what is necessary is the following ranking between the two pragmatic maxims, such that ToD » MP!. Thus, honorific meaning arises from the interaction between these two pragmatic maxims.

Since this suggests that the ranking ToD » MP! is sufficient to trigger an honorific inference, it may be instructive to consider cases where the rankings ToD » MP! and MP! » ToD are indistinguishable from one another. This concerns "ceiling" cases, where honorific plural overlaps with actual plural cardinality, resulting in no featural mismatch. For instance, French honorific *vous* is number-neutral: it can be felicitously used for honorification towards a plural addressee (60).

(60) Avez vous le livre? have.PRES.2PL 2PL the book 'Do you all (HON) have the book?'

Here, I claim that the honorific inference is still present. Featural mismatches have been used extensively throughout this paper because they are characteristic of honorification, presenting a starting puzzle with the phi-featural mismatches that honorification creates. However, while mismatch is characteristic of honorification, it is not necessary. I propose that the interaction of ToD and MP! in cases of mismatch eventually leads to conventionalization, so that the use of the presuppositionally weaker feature is taken to indicate honorification across the board, even when no mismatch pertains.¹¹ (Such conventionalization also drives the diachronic development of honorifics, which is covered later in Sects. 3.2 and 6.3.)

It is worth emphasizing that the notion relevant to ToD is that of semantic markedness, as neither syntactic nor morphological markedness bears on the range of meanings an element may have. What matters for the pragmatic maxim being proposed is presuppositional strength, not morphological complexity (as honorifics are formidentical to the features they recruit), or syntactic exceptionality (as honorific meaning does not appear or disappear with the type of construction used; neither does honorificity trigger certain syntactic operations).¹²

We can now relate the typological patterns laid out in Sect. 2 to the current proposal. Since honorifics take on such diverse forms, parameterization determines which phi-category is relevant for ToD in a certain language. For languages with honorific plural, ToD pertains to number; for those with honorific third person, ToD pertains to person; for those with honorific indefinites, ToD pertains to definiteness. Which phi-feature is targeted by ToD is arbitrary; more detail on this is given in Sect. 5.2. Despite this degree of arbitrariness, ToD does not derive unattested typological patterns: it is impossible to apply ToD such that honorific singular, honorific local person, or honorific definites result. This is because ToD » MP! in all honorific contexts, and ToD enforces the use of the least semantically marked form.

ToD is meant as a universal; for languages without grammatical honorification, I assume that ToD does not target any of the aforementioned phi-features. This does not necessarily mean that ToD is entirely dormant: again, it may target any grammatical category exhibiting a presuppositional cline, not just the categories of number, person, and definiteness. So far, pronouns have been used to illustrate the bulk of honorificity phenomena, but only as proxies for illustrating the phi-featural presuppositions located on them. Thus, the domain of ToD is not restricted to pronouns, or even phi-features located on pronouns; in principle, the effects of ToD may be found wherever presuppositional clines exist.¹³ Indeed, its effects on lexical presuppositions and imperatives are later presented in Sect. 4.4.

In some cases, verbal agreement was exclusively used to diagnose honorificity; for instance, for Assiniboine's honorific plural (11) and for Central Alaskan Yupik's honorific third person (20) (both repeated below).

¹¹Thanks to an anonymous reviewer for drawing my attention to these ceiling cases, and for suggesting conventionalization for them.

¹²The type of markedness relevant here is a key difference from A&N. To reconcile form and interpretation, A&N rely on impoverishment, which deletes morphologically marked forms (PL, first/second person) so that honorifics may appear in morphologically unmarked contexts (as SG, third person). The present account relies on ToD, which allows semantically unmarked forms (PL, third person, indefinites) to appear in pragmatically marked contexts (contexts requiring respect). Thus, A&N's account stipulates the neutralization of the morphologically marked, while this account results in the emergence of the semantically unmarked.

¹³Readers might wonder why presupposition instead of entailment was used in this treatment of honorific pronouns. This is due to honorifics being able to project out of semantic operators like negation and universals, something characteristic of presupposition but not entailment; indeed, Potts and Kawahara (2004: 255) note that "honorific content does project up out of all the standard presupposition holes." Furthermore, Sauerland (2008a) notes that phi-features have the profile of "implicated presuppositions," being able to project through both negation and universals as well, neatly patterning together with the projection properties of honorifics. Thank you to a reviewer for pushing for clarification on this point.

(61) mik^hų o'ínažį Ø-yá-pi-kta Ø-káya-pi.
my.mother-in-law town A3-go-PL-POT A3-say-PL
'My mother-in-law (HON) said she is going to town.'

(Cumberland 2005: 146)

 (62) ner'-uq=am! (=nɨżyżùqqam) eat-IND.3SG=again
 'You (HON) are eating again!'

(Miyaoka 2012: 876)

Here, the locus of honorificity is not located on a pronoun but on an agreement morpheme. The approach to verbal agreement goes along the same lines of reasoning: since ToD acts on presuppositional clines, it does not matter that the cline is located in the verbal domain. Since bound agreement morphemes index phi-features just as pronouns do, they are not exempt from ToD.¹⁴

Readers might recall from Sect. 3.2 that A&N overgenerate honorific pronouns used exclusively for plural antecedents, and person-neutral honorific pronouns. First, since plural is the presuppositionally weakest number, it would be very surprising on this account if plural honorification had a dedicated marker: this would mean that different forms are used to honorify plural antecedents and singular antecedents. The number recruited for honorification, whether for plural or singular antecedents, is predicted to be plural and plural only.

However, this account does not rule out the existence of person-neutral honorific pronouns either. Since third person is the presuppositionally weakest person, recruiting a third person form to span honorific reference, honorific address, and honorific self-address should be plausible, resulting in ceiling cases pertaining to person. As mentioned in the critique of A&N earlier, these are not attested. Under this account, though, this may be due to a purely empirical gap (since person-recruiting honorification systems are much less attested in the typology than number-recruiting honorification systems are). This might also be due to an economy consideration: in the number-related ceiling cases, plural spans two feature values (singular, plural); while for hypothetical person-related ceiling cases, third person would span *three* feature values (first, second, third person). Since the present account already places an emphasis on feature economy by eschewing a dedicated feature [HON] in favor of repurposing existing features, the latter explanation for the inexistence of person-neutral honorifics is adopted here.

Importantly, no machinery specific to honorification is assumed in this account. Semantic markedness and MP! are well-established tools and have been proposed for wide-ranging phenomena elsewhere in formal semantics/pragmatics. ToD is indeed an innovation, but note that it simply reflects Brown and Levinson's (1978) notion of negative politeness.

¹⁴That phi-features on bound-variable pronouns are interpretable is not an uncontroversial assumption to make. Some literature has suggested that phi-features on agreement morphemes receive no interpretation (Heim 2008; Kratzer 2009); however, this suggestion has been disputed (Rezac 2016). Either way, the shape of bound-variable pronouns in politeness contexts suggests that bound phi-features *are* interpreted. Recall (33) above where the number marking on French adjectives reflects the cardinality of the honorified addressee, suggesting that the plural is interpreted. Aside for number morphology on adjectives, it would also be fruitful to investigate the number marking of bound honorific pronouns. Thank you to an anonymous reviewer for pointing this out.

4.3 Honorific reference

Given that ToD is a grammatical manifestation of negative politeness, which confers autonomy and independence to an interlocutor, it is important to consider how honorific *reference* is derived, in addition to honorific address. When a speaker is merely referring to a third person who is not present, one might wonder if the considerations of taboo and avoidance still apply.

I propose that honorific reference is derived exactly parallel to honorific address. Once a tabooed relation is established, it is equally prohibitive to refer to that relation as it is to address them. Both linguistic and anthropological work highlight this feature of taboo, particularly those of in-law taboos. Rushforth (1981:35–36) notes the following rules of in-law avoidance in the Northeast Athabaskan-speaking Bear Lake Dene community. At all times, one is to avoid unnecessary conversation with an in-law. If conversation is necessitated, it should be done indirectly, through an appropriate proxy. If an appropriate proxy cannot be found, only then can one speak directly to an in-law, but only in the affinal speech style, characterized by use of the honorific plural. Rushforth explicitly notes the "importance of restraint, individual autonomy, and independence," a striking parallel to the notion of negative politeness which ToD reflects. Previous studies about the Dene ethnographic group in general (Helm 1965; Savishinsky 1970) are concordant regarding this practice.

Similar taboos can be found in many other language communities. In Guugu Yimidhirr, brothers-in-law "not only use the respectful vocabulary; they sit far apart, orient their bodies so as not to face one another, and avoid direct eye contact" (Haviland 1979: 170). In Warlpiri, tabooed relations are identified as in-laws, co-initiates, and opposite-sex relations. These taboos are arbitrated by honorific plural, regardless of whether the recipient is an addressee or a referent. Laughren (1996: 192) notes that speakers "use the plural pronoun *nyurrurla* and not the singular *nyuntu(lu)* to address or refer to a different sex sibling." Furthermore, plural is used to refer to in-laws, as in (63) where the speaker asks after his son-in-law with the plural. Note also his explicit avoidance to the "son-in-law" relation, which is only alluded to by pointing out that his addressee is his son-in-law's mother.

(63) Nyarrpara waja-lu ngarrijarri-ja nyuntu-npa japun-warnu-ju? where.NOM P-PL.SUBJ locate-PAST you-2.SUBJ mother-ASSOC-TOP 'Where is it he (HON) went? You're his mother.' (Lit.: 'Where did you say he was located that you are the mother of?') (Laughren 1996: 213)

The reader might recall that Warlpiri has been used to illustrate honorific address towards a co-initiate in (14) above. This shows that honorific plural pertains for both address (14) and reference (63), and the act of "conferring independence" does not depend on whether an interlocutor is in direct earshot or not.

There are also languages where the taboo in place affects honorific self-address (*i.e.* self-humbling), honorific address, and honorific reference, affecting all three grammatical persons. In Iduna (Papua New Guinea, Oceanic), honorific use is driven by matriarchy, and "a woman who is a mother is addressed, responds and is referred to in the plural" (Huckett 1974: 74). This pervasiveness of taboo across grammatical

Family	Language(s)	Taboo towards	Drives
Athabaskan- Eyak-Tlingit	NE. Athabaskan	in-law	address, reference
Austroasiatic	Jahai	sibling-in-law, father-in-law	self-address, address, reference
	Но	in-law	self-address, address, reference
Bunuban	Gooniyandi	in-law	address, reference
Pama-Nyungan	Warlpiri	in-law, cross-sex siblings, co-initiates	address, reference
Malayo- Polynesian	Pangasinan	respected person	address, reference
Oceanic	Iduna	mother	self-address, address, reference
	Ponapean	chief, respected person	address, reference
West Ambrym	Daakie	in-law, respected person	reference

Table 5 Languages with honorific reference, the taboos in place, and range of application

persons can also be found in two Austroasiatic languages, Jahai (Fleming 2017: 109) and Ho (Anderson et al. 2008: 209).

Table 5 summarizes the languages in my typology which display honorific reference, the taboos driving honorific reference, and whether the taboo also extends to humbling self-address and/or honorific address. In all cases below, the honorification strategy involves honorific number.

A more compelling case for the pervasiveness of taboo may be found with "bystander honorifics," used towards tabooed relations who are mere bystanders to the discourse. In Dyirbal (Aboriginal Australia, Pama-Nyungan), a speaker must switch to the avoidance register if a tabooed kin is within earshot, even if the speaker was neither addressing nor referring to the kin (Dixon 1972: 32). Bunuba is similar, with mother-in-laws being the bystander to consider (Rumsey 1982: 161). Keating and Duranti (2006: 148) note for Ponapean that "when the chief or some other high status person is present, the use of honorifics becomes relevant on that basis alone. Radio announcements are therefore made using honorific forms."

Hence, the use of honorific registers is driven by the speaker's relation to the recipient, and does not depend on whether the recipient is an addressee, a referent, or a bystander. Thus, the notion of negative politeness driving ToD can still be maintained, if we agree with previous anthropological studies that social taboos are pervasive enough so that "mere" reference is also considered an infringement of autonomy. If we expand the notion of conferring autonomy so that it also respects the sovereignty of the individual (the right to one's bodily integrity and to one's exclusive control of their social life), then negative politeness is still in effect, whether it grants autonomy (in the case of honorific address) or sovereignty (in the case of honorific reference).

4.4 Further support: ToD in other domains

4.4.1 Lexical

Languages can also deploy ToD on *lexical* presuppositions. To illustrate this, we turn to *semantic bleaching*, the phenomenon whereby multiple, lexically distinct verbs in the ordinary register are replaced wholesale by a vaguer "catch-all" verb in the avoidance register. Here, I illustrate with the in-law avoidance registers of Aboriginal Australia.

(64) exhibits the semantic bleaching in the avoidance register of Warlpiri. Multiple lexically distinct verbs in the ordinary register are conflated into one verb in the avoidance register used with brothers-in-law (Laughren 2001:205).

(64)	parntarri 'to crouch,' yani 'to go,' kanyi 'to take,' yirrarni 'to put,' nyina 'to sit,' karri 'to stand,' nguna 'to lie,' kulpa 'to return'	\rightarrow	<i>marrari-yani</i> (generally indicating spatial relations)
	wangka 'to speak/say,' ngarrirni 'to tell'	\rightarrow	<i>kangarra-pinyi</i> (generally indicating speech)

(65) shows semantic bleaching in the Guugu Yimidhirr (Australia, Pama-Nyungan) avoidance register, with the same many-to-one correspondence between the ordinary and brother-in-law registers (Haviland 1979: 218).

(65)	biilil 'to paddle,' yaalgal 'to limp,'	\rightarrow	balil
	dhaarmbil 'to float, sail, drift'		(general predicate indicating direction)
	daabal 'to wade,' gaynydyarr 'to crawl'		

Semantic bleaching in avoidance registers makes fewer lexical presuppositions about the action carried out by honorified referents. For instance, both 'to go' and 'to paddle' presuppose motion, but only 'to paddle' carries the additional presupposition that this motion was via water, and accomplished with some instrument. This suggests that ToD is also active in non-pronominal domains. Semantic bleaching serves the same purpose as using presuppositionless forms for honorific pronouns: both strategies avoid individuation of the referent, thereby respecting negative face.

This phenomenon can be also found in Australasia. In Samoan (Polynesia, Oceanic), there are distinct common vs. high-status registers, with the high-status register exhibiting avoidance-based polysemy in the nominal domain (Keating and Duranti 2006: 153):

(66)	mata 'eye,' isu 'nose,' nutu 'mouth'	\rightarrow	fofoga
	lima 'hand/arm,' vae 'leg/foot'	\rightarrow	'a'ao

Semantic bleaching is a typologically robust phenomenon, found the languages shown in Table $6.^{15}$

¹⁵A reviewer rightly points out that such semantic bleaching might have assertive content instead of presuppositional content; so perhaps lexical honorifics like these should not receive the same ToD treatment as pronominal honorifics. To show that the languages in Table 6 involve presupposition instead of assertion, one would need to have access to native speaker judgements for those languages; for instance, if the social meaning expressed by semantically bleached items can be used to answer a question, then it would have

Region	Family	Language(s)	
Australia	Bunaban	Bunaba, Gooniyandi	
	Gunwinyguan	Gunwinngu	
	Pama-Nyungan	Dyirbal, Djaru, Guugu Yimidhirr,	
		Uradhi, Warlpiri, Wik-Ngathana	
Asia	Austroasiatic	Vietnamese	
	Central Malayo-Polynesian	Tetun (Fehan dialect)	
Micronesia	Oceanic	Ponapean	
Polynesia	Oceanic	Samoan, Tongan	

 Table 6
 Languages with semantic bleaching

4.4.2 Imperatives

Politeness considerations are especially salient in imperatives, as imperatives are manipulative speech acts. A preliminary survey of polite imperatives finds that the same patterns hold: only plural, third person, and the combination of third person plural are attested as imperative softening strategies.

Languages may distinguish singular from plural imperatives (see WALS, Chap. 70), so that they morphologically distinguish imperatives directed towards one *vs.* multiple addressees. It is to such languages that we now turn, as it is only in these languages where honorific plural is discernible in imperatives.¹⁶

In Xamtanga (Ethiopia, Cushitic), the singular imperative is null-marked, distinguishing from the plural imperative which is marked with -t'in. For a polite imperative towards one addressee, it is the plural form which is used, resulting in the ambiguity in (67a–b). Such ambiguity is also exhibited in the prohibitive, as in (68a–b).

(67) bəbi-**t'in**!

swim-IMP.**PL**

- a. 'Swim!' (towards multiple addressees)
- b. 'Please swim!' (politely towards one addressee)
- (68) bəbi-**t'inə**!

swim-proh.**pl**

- a. 'Do not swim!' (towards multiple addressees)
- b. 'Please do not swim!' (politely towards one addressee) (Belay 2015: 281, adapted)

Chichewa (South/East Africa, Bantu) also employs honorific plural in its imperatives. Singular imperatives consist of the bare verb stem, while plural imperatives add the

assertive meaning, not presuppositional meaning. Unfortunately, I am currently lacking such access, so I can only state the assumption that semantically bleached items do have presuppositional content in these languages.

¹⁶Readers concerned about the interpretability of phi-features on agreement are referred to fn. 14 above.

enclitic *-ni*. As in Xamtanga, the Chichewa plural imperative may also be used politely towards one addressee:¹⁷

- (69) Thamangá-**ni**! run-IMP.**PL**
 - a. 'Run!' (towards multiple addressees)
 - b. 'Please run!' (politely towards one addressee)

(Mchombo 2004: 33–4)

Other languages morphologically distinguish imperatives (commands directed towards second persons, e.g. *Eat!*) from jussives (commands directed towards third persons, e.g. *Let him eat!*). In these languages, honorific uses of person can be detected. One such language is Huallaga Huánuco Quechua (Peru, Quechuan). Imperatives are marked with -y or -nki, while jussives are marked with -*chun*. One way of forming a polite imperative is to use jussive marking instead:

- (70) Chay-lla-chaw ka-ku-yka:-**chun**. there-just-LOC be-REFLX-IMPF-**JUSS**
 - a. 'Let it just be there.' (neutrally towards referent)
 - b. 'Leave it right there.' (politely towards addressee)

(Weber 1989: 101–2, adapted)

This type of imperative softening is parallel to using honorific third person, a pattern also present in the pronominal domain.

A combination of plural and third person is found in Amharic (Ethiopia, Semitic). Where one wishes to express a polite command, the plural jussive, marked by the circumfix y_{∂} -...-u, is used:

(71) **yə-bg-u**

JUSS.PL-enter-JUSS.PL

- a. 'Let them come in!' (neutrally towards multiple referents)
- b. 'Come in, please!' (politely towards one addressee)

(Leslau 2000: 75–7, adapted)

An overview of languages which soften imperatives via phi-distinctions are given in Table 7. Importantly, the patterns for polite imperatives are entirely consistent with what we saw for honorific pronouns. There are no languages where imperatives are softened with singular number, or languages where polite jussives are indicated with imperative morphology. Thus, polite imperatives provide further support for the empirical generalizations drawn in Sect. 2 and the subsequent analysis. (Honorification strategies within a language with both polite imperatives and polite pronouns may align. Where data is available, such alignment is indicated with italicization.)

4.5 Advantages

Here, I outline the empirical, analytical, and theoretical advantages of this account.

¹⁷Unlike Xamtanga, this ambiguity is not present in prohibitives, where the number distinction is neutralized.

Softener	Region	Family	Language(s)
Plural	Australia	Gunwinyguan	Waray
	Africa	Bantu	Chichewa
		Gur	Koromfé
	India	Dravidian	Tamil, Telugu
		Indo-Aryan	Kashmiri
	USA	Pomoan	Southern Pomo
	Vanuatu	Oceanic	Lamen
Jussive	Peru	Quechuan	Huallaga Huánuco Quechua
	S. Asia	Malayo-Polynesian	Javanese
Combination	Africa	Semitic	Amharic

 Table 7
 Languages with polite imperatives

Empirically, we have seen that the set of grammatical representations that honorifics piggyback on is wide-ranging, yet non-arbitrary. There are specific grammatical values which are never recruited for honorification: singular number, first/second person, and definites. This is unexpected under a [HON] account, since there are minimal restrictions on the representations that [HON] can sit on. In contrast, the current account makes the correct empirical predictions, as the set of possible honorifics neatly correlates with the notion of semantic markedness. Semantically unmarked values are widely recruited as honorifics, while semantically marked values are unattested as honorifics.

This account also makes some predictions about which other grammatical categories may be co-opted for honorification. This paper has focused on number, person, and definiteness. However, it is also predicted that grammatical case is never found to have honorific effects, a prediction which is borne out. This is because case is a presuppositionally empty category. For example, there is no sense in which nominative case entails accusative case, or where the interpretation of nominative case properly includes that of accusative case, or vice versa. (In contrast, there *is* a sense in which plural entails singular, leading to an inclusive interpretation of the plural.) Case does not feature a presuppositional cline, is not a valid consideration with regard to ToD, and thus cannot have honorific effects.

Analytically, ridding our feature inventory of [HON] restricts the feature inventory to patterns of exponence which are both detectable and typologically robust, with the welcome consequence that the inventory is not populated with *ad hoc* features. By eschewing [HON], we sidestep unwelcome secondary consequences such as enlarged pronoun inventories and rampant impoverishment.

Rather than relying on [HON], this account explains the distribution and interpretation of honorifics to independently established mechanisms. I link the observation that possible honorifics are semantically unmarked to a politeness consideration, ToD, previously formalized in Brown and Levinson's (1978) anthropological work as *negative face*. ToD captures the intuition that honorification involves the avoidance of directness, an intuition absent from [HON] analyses. ToD interacts with *Maximize Presupposition!*, a maxim with well-supported effects from a diverse range of other phenomena, to derive honorific meaning. This account requires no stipulations specific to the representation of honorifics.

Theoretically, this proposal also postulates that inventory of features is more economically organized. The same features may be "recycled" to serve different functions (e.g. Hale 1986; Biberauer 2018): learners conservatively postulate the minimal amount of features and make maximal use of them. With an extensive typology of honorification, I have tried to show that recycling takes place at *both* the levels of exponence and interpretation: honorifics resemble certain forms *morphologically*, precisely because honorifics resemble them *pragmatically* as well.

5 Articulated honorification systems

Section 2.1 prefaced articulated honorification systems which recruited dual and/or paucal for honorification. Without further elaboration of the proposal, these systems present a major puzzle. If we assume that plural is always the least semantically marked number, and assume that ToD » MP! in any respectful context, then we predict that languages will only ever use plural for honorification. I expand my typology by presenting honorific uses of nonsingulars from SG-DU-(PC)-PL languages, which are only attested in four shapes: honorific dual only, honorific plural only, escalating honorific nonsingulars, and non-escalating honorific nonsingulars. I introduce another strength of ToD, and capture the variation in the expanded typology by varying the activity and ranking of the pragmatic maxims at hand.

5.1 A typology of honorific nonsingulars

To be dual or not to be?

The starting puzzle is the existence of honorific dual: *contra* the current proposal, SG-DU-PL languages can use its dual for honorification, skipping its plural. This was prefaced by Daakaka in (16) above, and can be further illustrated with Mwotlap (Vanuatu, Oceanic) in (72).

(72)	Ēt!	Yohē!	Amyo	van	tō	me!	
	EXCLAM	DU.VOC	2DU.IMP	AORIST.go	POL.IMF	hither	
	'Hey, you	ı (HON)!	Come her	re for a seco	ond.'	((François 2005: 121)

Honorific dual is found to apply for both address and reference. In Daakie (Vanuatu, Oceanic), addressee honorification towards an in-law (73a) and referent honorification towards a respected person (73b) exclusively use dual, skipping plural.

a. motlo Wili Santo ka-p mee kidye-p tene father.in.law W. S. 2DU-POT come 1PC.EXCL-POT pay s-amoo tuutuu mane kamoo. CL1.POSS-2DU grandparent with 2DU 'Father-in-law Wili Santo, you (HON) come and we pay out your grandfather to you (HON).'

b.	okege Maika koloo kolo -m	du	weren	
	LOC Maika 3DU 3DU-REAL	stay	LOC	
	'at the place where Maika (HO	N) li	ves'	(Krifka 2019: 70)

Strikingly, in Kharia (India, Munda), dual marks honorification towards any number of entities. Dual is used for honorific singular address (74a), but can also be used to honorify 3 referents (74b).

(74)	a.	solo? gam-te ambar bura um- bar mane=te ^s j
		dog say-ACT.PRES 2DU bad NEG-2DU consider-ACT.PROG
		'The dog says, "If you (HON) don't consider it bad" '
	b.	iŋ-a? tay konon tin bhaya-ŋ- kiyar ayi ^Ŷ j- kiyar .
		1SG-GEN ABL small three brother-1.POSS- 3DU COP.PRES- 3DU
		'I have three younger brothers (HON).'
		(Peterson 2011: 169–170, adapted)

In contrast, languages can skip their dual for honorification. In Slovenian (SG-DU-PL), dual has no honorific effects. Plural *vi* is used for honorific singular address, but dual *vidva* is not (at least not in the spoken language):

(75)	a.	Ali se	boste	Vi	used-l-i?
		Q REFLX	K AUX.FUT.2PI	2 2 PL	sit-PART-PL.MASC
		'Would yo	ou (HON) like t	o sit	down?'
	b.	Ali se	bosta	Vid	lva used-1-a?
		Q REFLX	AUX.FUT.2D	U 2DI	U sit-part-du.masc
		'Would yo	ou like to sit do	own?'	(Corbett 2000: 226)
		•			

The same pattern pertains in some Pama-Nyungan languages of Aboriginal Australia, as illustrated for Mparntwe Arrente (76) and Warlpiri (77). Both have SG-DU-PL number systems.

(76)	Kere-rlke, merne-rlke nhenhe the k	nge-tyenhe arrekantherre .
	meat-too bread-too this 1SG.AGENT c 'I'll carry this bread and meat in for you (Ho adapted)	
(77)	ngana-ngku- nyarra ngarrurnu yarlpurru-pa	rdu?
	who-ERG- 2PL .OBJ told coinitiate-DE 'Who told you (HON), agemate-brother?'	(Laughren 2001: 210–1)

The split between honorific dual-only and honorific plural-only is manifested in a diverse pool of languages. Mwotlap-like honorific dual-only languages are shown in Table 8. Slovenian-like honorific plural-only languages are shown in Table 9, a subset of languages previously listed in Table 2.

(Non-)escalating honorific nonsingulars

Languages can also choose to use multiple nonsingulars for honorification, using dual/paucal in addition to plural.

Table 8 Languages with honorific dual, skipping plural	Region	Family	Language(s)
	Melanesia	Oceanic	Daakie, Daakaka, Kilivila, Mwotlap, Nadrogā, Oroha, Wuvulu
	S.E. Asia	Munda	Kharia, Ho, Mundari, Santali
	Polynesia	Oceanic	Tuvaluan

Table 9 Languages with honorific plural, skipping dual	Table 9	Languages	with	honorific	plural,	skipp	oing d	lual
--	---------	-----------	------	-----------	---------	-------	--------	------

Region	Family	Language(s)
Africa	Khoisan	Nama
Australia	Mangarrayi-Maran	Mangarrayi
	Pama-Nyungan	Djaru, Guugu Yimidhirr, Kuku-Yalanji, Mparntwe Arrernte, Warlpiri, Wik-Ngathana
Europe	Slavic	Slovenian, Sorbian
Melanesia	Oceanic	Kaulong, Tigak
N. America	Athabaskan-Eyak-Tlingit	NE. Athabaskan
W. Asia	Sino-Tibetan	Camling, Cogtse Gyarong, Dhimal

In Imere, recall that either dual or plural can be used to indicate the equal amount of respect, for both honorific address (78a) and reference (78b).

- (78) Imere address and reference
 - a. korua/koteu ku-roro. 2DU/2PL PF-go.NSG 'You (HON) have gone.'
 - b. raua/rateu ku-roro. 3DU/3PL PF-go.NSG 'He (HON) has gone.'

(own fieldwork)

Alternatively, the use of higher nonsingulars can correlate with higher levels of respect. This was prefaced with Boumaa Fijian in (17) above. A Standard Fijian consultant offers a similar paradigm for her dialect, where the escalating pattern pertains for both address and reference (79).

(79)	Standard Fijian address	and reference	
	2/3DU (mudrau/rau)	matrilineal cousin	(own fieldwork)
	2/3PC (mudou/ratou)	in-law/matrilineal sibling	
	2/3PL (<i>munu/ra</i>)	village chief	

In Ponapean (Micronesia, Oceanic), there are two levels of honorification: royal (higher) and respectful (lower) (Rehg 1981: 368). For singular honorific address, the respectful honorific pronoun is *komwi*, which significantly resembles the 2NSG root *kumw-*, and the royal honorific pronoun is 3PL *ihr*. For singular honorific reference, both levels of honorification are expressed with 3PL *ihr*. Thus, the lower level of

Туре	Region	Family	Language(s)
Non-escalating	Melanesia	Oceanic	Imere, South Efate (Lelepa)
Escalating	E. Asia	Austroasiatic	Jahai, Temiar
	Melanesia	Mandang	Kobon
		Oceanic	Boumaa Fijian, Standard Fijian, Tinrin
	Micronesia	Oceanic	Ponapean

 Table 10
 Languages with (non-)escalating honorific nonsingulars

honorification recycles the nonsingular, but the highest nonsingular, the plural, is reserved for the higher level of honorification.¹⁸

Table 10 lists other languages like Imere and Fijian which use multiple nonsingulars for honorifics.

5.2 Strong and weak ToD

Above, we saw that languages can recruit nonsingulars for honorification in only four ways: recruit dual only, recruit plural only, recruit both in an escalating fashion, or recruit both in a non-escalating fashion. The challenge is to derive all and only these four patterns. This will involve two ingredients: a markedness cline for dual relative to other numbers, and differing strengths of ToD.

First, we assume the markedness cline for dual and plural as in (80): dual has an intermediate level of markedness, sandwiched between plural (least marked) and singular (most marked). This will be assumed consistent across all languages, regardless of which nonsingulars are recruited for honorification. The relative unmarkedness of plural to singular is also consistent with previous theoretical and experimental work mentioned above (e.g. Sauerland 2008b; Yatsushiro et al. 2017).

(80) Presuppositions of SG, DU, PL

a.	$\llbracket PL \rrbracket = \lambda x_e . x$	(weakest)
b.	$\llbracket DU \rrbracket = \lambda x_e : x \leqslant 2 . x$	(intermediate)
c.	$\llbracket SG \rrbracket = \lambda x_e : x \leq 1 . x$	(strongest)

While semantic fieldwork on dual has so far been scarce, the cline in (80) is also adopted by existing work on this topic (Dvoř'ak and Sauerland 2006). Preliminary fieldwork presented in Sauerland (2008b) concurs, claiming that the Slovenian dual in (81) is compatible with a reading where some students have one book and some others have exactly two, adopting the presupposition of dual as stated in (80b).

 $^{^{18}}$ Rehg (1981: 158–159) shows that Ponapean pronouns can be analysed such that dual and plural are composed from nonsingular roots. 1NSG is exponed by *kit*-, 2NSG by *kumw*-, 3NSG by *ir*-. To then form dual and plural from these nonsingular roots, -*a* is added for dual, and -*ail* for plural.

	SG	DU	PL
1excl	i	se	se
1incl	—	kita	kitail
2	ke	kumwa	kumwail
3	е	ira	irail/re

(81) Vsak študent je prinesel s seboj svoj-i knjig-i. every student be.SG brought.MASC with self his-du book-du 'Every student brought his books.'

Second, to derive the typological nuance displayed by articulated honorification systems, we modify the proposal such that there are two strengths of ToD: strong ToD (82a) and weak ToD (82b).

(82) a. Strong Taboo of Directness (SToD) In respect contexts, use the form with the weakest presupposition.
b. Weak Taboo of Directness (WToD)

In respect contexts, avoid the form with the strongest presupposition.

Thus, three pragmatic maxims in total are at play: SToD, WToD, and MP!. I propose that it is the activity and relative ranking of the three pragmatic maxims we have at hand that derives all attested patterns of honorific number laid out so far.

Consider SG-PL languages, which only ever recruit plural. The effects of SToD and WToD are indistinguishable, as plural is simultaneously the form with no presuppositions (satisfying SToD) and *not* the form with strongest presupposition (satisfying WToD). In obeying either, the result of recycling plural for honorification obtains. (Following the same logic, the effects of SToD and WToD are indistinguishable in languages which recruit third person or indefinites for honorification.) The ranking for these languages is SToD/WToD » MP!.

It is in articulated number systems where we can distinguish SToD from WToD. Imagine that the starting set of available forms in articulated number systems is SG, DU, PL, a set which shrinks after pragmatic maxims apply.

For languages with honorific plurals only, I propose that the ranking is SToD » MP! » WToD. SToD enforces the use of the presuppositionally weakest form, the plural, shrinking SG, DU, PL to PL. At this point, MP! applies, but vacuously, because only plural remains after the application of SToD. The effects of WToD is undetectable, because it is lowest-ranked.

For languages with honorific duals only, I propose the ranking WToD » MP! » SToD. WToD leaves open the choice of either nonsingular for honorification, since it only eliminates the form with the strongest presupposition, thus shrinking SG, DU, PL to DU, PL. Then, MP! applies. MP! chooses the remaining form with the strongest appropriate presupposition, further shrinking DU, PL to DU. (This is also compatible with Kharia, where dual may honorify three entities. Since WToD outranks MP!, WToD cancels the potential effect that MP! has of choosing plural, which would otherwise be appropriate for cardinality 3.) Again, the effects of the lowest-ranked SToD are undetectable.

Note that the distinction between "strong" and "weak" ToD is not *ad hoc*, but socially motivated: strong ToD is called as such because it is essentially a stronger negative politeness strategy than weak ToD. The options that SToD leaves the speaker are more restricted. While SToD enforces the use of the *maximally* presuppositionless item, WToD only excludes the *minimally* presuppositionless item.

This makes the current analysis amenable to languages with escalating nonsingulars like Fijian. I propose that WToD applies for low-politeness contexts, *i.e.* when the speaker is addressing kin. SToD applies for high-politeness contexts, *i.e.* when the speaker is addressing the village chief. Thus, Fijian amalgamates the two rankings we have already seen (WToD » MP! » SToD for honorific dual, SToD » MP! » WToD for honorific plural), but relativizes them for the degree of politeness appropriate.

For languages with non-escalating nonsingulars like Imere, I propose that in respect contexts, WToD is active, but MP! and StoD are inactive.¹⁹ WToD eliminates the use of singular for honorification, shrinking SG, DU, PL to DU, PL, and speakers are free to choose between dual and plural.

One might imagine an alternative hypothesis, where the strength of ToD is constant across all languages, and it is the markedness of dual which differs across languages. Languages with honorific dual have a markedness cline where dual is more marked than plural, while languages with honorific plural have a markedness cline where plural is more marked than dual. However, this alternative is extremely stipulative in the absence of evidence from detailed semantic fieldwork to establish this specific difference between the two groups of languages, and this alternative is rejected.

In sum, we derive the typology of articulated honorific systems, assuming a markedness cline consistent across all languages (80), and three pragmatic maxims (strong ToD, weak ToD, MP!). Here, morphological forms are filtered out in successive cyclic fashion based on an ordered ranking of the pragmatic constraints. This fits into a broader framework of OT pragmatics, e.g. Blutner et al. (2003).²⁰ This is summarized in (83).

(83) Deriving the typology of articulated honorific systems

- a. Honorific dual only (e.g. Mwotlap, Kharia): Weak ToD » MP! » Strong ToD
- b. Honorific plural only (e.g. Slovenian, Warlpiri): Strong ToD » MP! » Weak ToD
- c. Honorific nonsingulars, escalating (e.g. Fijian, Ponapean): Weak ToD » MP! » Strong ToD for low-politeness contexts; Strong ToD » MP! » Weak ToD for high-politeness contexts
- d. Honorific nonsingulars, non-escalating (e.g. Imere): Weak ToD

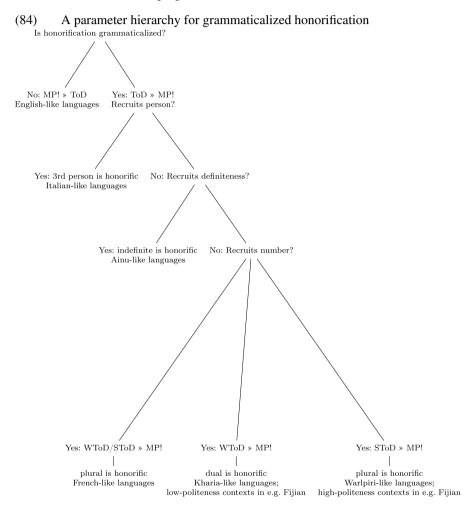
The enriched proposal, with an elaborated interaction of ToD with MP!, derives *all* attested honorification systems, while also excluding all unattested honorification systems. There is no ranking in (83) that results in honorific singular, fitting typological facts across the board.

The parameterization of the proposed pragmatic maxims derives all and only the attested honorification systems, as shown in the hierarchy in (84). If honorification is

¹⁹Since MP! is posited to be a universal, this predicts that, in Imere-like languages, MP! is either selectively inactive in honorific contexts, or MP! is inactive across the board—both surprising predictions. Unfortunately, this requires extensive semantic fieldwork to uncover, and I can only note this stipulation here.

²⁰The spirit of the analysis is also similar to Harbour's (2016) theory of number features, where the order of application of features derives all and only the attested number systems from only three number features ([atomic], [minimal] and [group]). Here, pragmatic maxims are being applied in cyclic fashion to derive all and only the attested honorification systems.

grammaticalized at all (that the ranking ToD » MP! pertains in polite contexts), then the grammar has the choice of recruiting person, definiteness, or number, as these phicategories exhibit presuppositional clines. Within number, the effects of WToD and SToD are differentiated in articulated honorification systems. The parameterization of pragmatic maxims is indeed an innovation within feature theory, but fits naturally within a framework of OT pragmatics.



6 Challenges and open issues

Here I acknowledge areas for future work, identifying phenomena which do not provide direct evidence for the current proposal to varying degrees. First, the lack of honorific gender poses a potential counterexample since grammatical gender can exhibit markedness clines (Sect. 6.1). Second, large socially-nuanced pronoun inventories do not provide direct support for [HON], but they do not provide direct support for ToD

either (Sect. 6.2). Third, lexicalised honorifics like Spanish *usted* only provide partial evidence for ToD: while ToD may explain their diachronic origins, it is unclear if ToD explains their synchronic representation (discussed in Sect. 6.3). Lastly, I note a small sample of counterexemplifying languages in my sample which seem to have dedicated reflexes of honorification (Sect. 6.4).

6.1 Gender

In languages with (at least) a feminine-masculine opposition, previous work has shown that gender does correlate with markedness oppositions (Sauerland 2008b; Bobaljik and Zocca 2011). In several European languages, it is the masculine that is less marked. This can be shown with the behavior of noun pairs like *actor/actress* under ellipsis. The masculine noun licenses an elided feminine noun, but not vice versa. This explains why (85a) is deemed more acceptable than (85b) for Brazilian Portuguese *ator/atriz*. (Elided constituents are bracketed.)

(85)	a.	[?] O Paulo é ator e a Fernanda também é <atr-iz>.</atr-iz>
		the Paulo is actor and the Fernanda also is actr-ess
		'Paulo is an actor and Fernanda is too.'
	b.	[#] A Fernanda é atr-iz e o Paulo também é <ator>.</ator>
		the Fernanda is actr-ess and the Paulo also is actor
		Intended: 'Fernanda is an actress and Paulo is too.'
		(Bobaljik and Zocca 2011: 144–5)

A similar asymmetry holds with English actor/actress:

- (86) a. Froggy is a waiter, and Anne is $\langle a waiter \rangle$ too.
 - b. [#]Anne is a waitress, and Froggy is <a waitress> too.

If such findings are on the right track, then it is quite surprising that gender is never recruited for honorification, at least in European languages. Here, I only offer some speculations as to why.

To start, "gender" is far from a uniform category across languages. In Romance, many nouns may show a discrepancy between grammatical and biological values (e.g. Italian *il soprano* the.MASC soprano.MASC denoting normally-female sopranos, Spanish *la persona* the.FEM person.FEM denoting men, etc.). This shows that gender may be a purely formal reflex of noun categorization. Languages may also choose to make different types of gender distinctions, varying from a feminine-masculine opposition, to human-nonhuman, to animate-inanimate, and so on. In comparison, person and number are much more uniform categories, with languages partitioning the relevant ontological spaces relatively homogeneously (Harbour 2014, 2016).

Furthermore, gender is often parasitic on other phi-features: for example, gender is marked only in third person, preferably third person singular, in many languages. This observation is captured by Greenberg's (1963) Universal 36: "If a language has the category of gender, it always has the category of number."

Here I offer a further difference between gender and number/person, which forms part of a speculative explanation as to why gender never has honorific effects. ToD is proposed as a grammatical reflex of a negative politeness strategy. However, readers might wonder if there exists a grammatical reflex corresponding to *positive politeness strategies*: those which acknowledge that an interlocutor's wants and needs are respected and "desirable to at least some others" (Brown and Levinson 1978).

I stipulate that the lack of honorific gender might be a relic of the pressure of addressing *positive* face-wants for the following reason. While one's cardinality is not generally considered an important part of one's social image, or face, one's gender generally is (at least in indigenous communities where many of the languages considered in the current sample are spoken). Unlike number/person, gender is grounded in one's identity and one's presentation of this identity. The use of honorific gender might be very threatening to positive face, since a gender mismatch ostensibly overlooks the interlocutor's own desires for how this important part of their identity is perceived.

6.2 Socially nuanced pronoun inventories

Large pronominal systems in Asian languages offer speakers fine-grained nuances in social meaning. These languages do not make use of any presuppositional cline to express politeness, but recruit lexical material (such as respectful abstractions and humbling expressions) instead. I first illustrate the phenomenon, then give some evidence showing that these deictic forms pattern more like nouns than pronouns, concluding that these languages do not provide direct evidence for either the [HON] or ToD analysis.

Let us begin by considering the Japanese pronominal system, noted by many previous studies (Hinds 1971; Wetzel 1994; Ishiyama 2019) as unusual for the following reasons. Speakers have at their disposal a large repertoire of pronominal forms, with multiple forms for each grammatical person, each with its own social nuances. We see that the sex of the speaker, the speaker-addressee relationship, and other social factors are indexed via the choice of a particular form. When a speaker chooses to use an overt form, they are making a social statement. For example, *boku* indexes the speaker as being male, while *ore* additionally indicates that an informal relationship. There is no socially neutral form, the most neutral form being *pro*-drop (in the sense that it makes no social assumptions).

Table 11 shows the forms, their connotations, and origins (if known) for first person forms of Japanese. Many originated as nouns, and social connotations can be transparently seen from their lexical meanings: the self-humbling forms *shousei* and *yo* were literally 'small student' and 'left over,' respectively. Italicized forms are almost obsolete, or perceived as old-fashioned.²¹

Other languages in South Asia have similarly large pronoun inventories, shown in Table 12. Several 1SG expressions are polite by dint of their self-humbling or self-deprecating nature: 'slave' and 'servant' are frequent sources of polite first person forms. Conversely, respectful expressions or titles such as 'master' or 'lord' are frequently grammaticalized into second and third person forms.

Here, I note several unusual properties of the forms in Tables 11 and 12, showing that they pattern away from pronouns.

²¹Many thanks to Yasutada Sudo for valuable native speaker judgements here.

Form		Social connotation(s)	Origin
atakushi	わたくし	Female	Reduction of watakushi
atai	わたい	Female, defiant	
atashi	私	Female	Reduction of watakushi
boku	ぼく	Male	'servant'
shousei	小生	Male, humble	'small student'
chin	朕	Emperor	
kochira	こちら	Female/male, business setting	'this way'
kochitora	こちとら	Male, colloquial, working-class	
oira	おいら	Male, colloquial, uneducated	
ora	おら	Female/male, Northern, country-bumpkin	
ore	おれ	Male, informal	
temae	手前	Highly formal	'in front of hand'
washi	わし	Male, elderly	
watakushi	わたくし	Very formal	'private'
warera	われら	Not too formal nor informal	
wareware	われわれ	Not too formal nor informal	
watashi	私	Formal Reduction of <i>watak</i>	
wacchi	わっち	Male	
wagahai	わが輩	Elderly	
уо	余	Humble 'left over'	

 Table 11
 Some 1sg forms in Modern Japanese (Christofaki 2018: 113–114, citing Tsujimura 1968)

First, consider Thai, which displays several transparently elongated forms in both first and second persons (e.g. self-humbling *khâa* 'servant,' *khâaphacâw* 'lord's servant,' *khâaphraphútthacâw* 'Your Majesty's servant'), where humility increases with morphological complexity. This capacity for free modification shows that they constitute an open class, unlike pronouns which are closed-class elements. This suggests that this paradigm is reducible to a socially nuanced system of nouns, displaying, for example, the difference between English *Your Highness, Your Most Royal Highness*, and *Your Most Esteemed and Royal Highness*, deictic expressions which can be freely elaborated upon.

Second, they pattern like common nouns with regards to both origin and syntactic behavior. Describing Cambodian, Haiman (2011: 185) explicitly states that most pronouns behave like common nouns "not only in terms of their etymology, but in terms of their capacity for modification and quantification, and for themselves acting as modifiers." For example, the Cambodian 1PL pronoun *jeu:ng* can function as a modifier (87a) or a modified noun (87b). The same holds for Thai, where pronouns can function as objects of prepositions (88a), be modified by numeral phrases (88b) or clauses (88c).

(87) Nominal capacity of Cambodian pronouns

a. jeu:ng teang pi: neak
 1PL all two people
 'both of us'

Language	Deixis	Form	Origin	
Acehnese	1	(u)lôn, (u)lông	'slave'	
		(u)lôntuwan	'your slave, lord'	
	3	gopnyan, götnyan	'that other person'	
Cambodian	1	knjom	'slave'	
	2	vrah pāda	'his sacred feet'	
		lo:k	'monk'	
Hindi	1	benda	'slave'	
		xaqsar	'dust-like'	
		naciz	'nothing'	
	2	aqa	'master'	
		bendaevaz	'patron'	
		serkar	'master/government'	
Lao	1	khòój5	'slave'	
		khaa5-phacaw4	'slave of the lord'	
	2	caw4	'lord'	
	2/3	thaan1	'exalted one'	
Malayalam	1	atiyan	'one at your feet'	
	2	svami	'master'	
	2/3	tirunmeni	'auspicious body'	
		tampuran	'one's own lord'	
		avitunne	'from there'	
	3	addheham	'that body'	
Nepali	2	yahã	'here'	
	2/3	sarkaar	'government'	
	3	wahã	'there'	
Sinhalese	3	mahatteya	'gentleman/sir/master'	
		nona, mis	'lady'	
Thai	1	khâa	'servant'	
		khâaphacâw	'lord's servant'	
		khâaphraphútthacâw	'Your Majesty's servant'	
		phǒm	'hair'	
		kraphŏm	'hair of the head'	
		áattamaa	'the self' (only by monks)	
		пйи	'rat' (classifier)	
	2	khun	'virtue/merit'	
		tâaythaaw	'underneath foot'	
		fàabàat	'sole of foot'	
		tâayphrabàat	'sole of royal foot'	
		tâayfàaphrabàat	'underneath sole of royal foot'	
		tâayfàalaəəŋphrabàat	'dust under sole of royal foot' (towards royalty)	
		tâayfàalaəəŋthúliiphrabàat	'dust under sole of royal foot' (towards King)	

 Table 12
 Humbling/polite forms in large pronoun inventories

	b.	hawm jeu:ng strong 1PL 'we strong ones'	(Haiman 2011: 190)
(88)	No	minal capacity of Thai pronouns	(
	a.	khəəŋ kháw of 3.MASC 'his'	
	b.	raw tháŋ lǎaj, kháw sǎam khon 1PL all several, 3.MASC three person.CLS 'us all', 'them three'	
	c.	raw sŷn pen khon.ruaj 1PL who are rich 'who are rich persons'	(Cooke 1965: 17)

Third, not all forms have rigidly fixed deixis like true pronouns do. In Thai, four forms alternate between second or third person reference, one form between first and third, and one form between first and second. Most common nouns which denote status, occupations, or kinship can also be used this way in Cambodian, Thai, Japanese, and Korean. Flexible deixis is illustrated with the Thai kinship term $ph\hat{o}o$ 'father' in (89).

(89)	phá	ο maw lέεw.	
	fatl	her COP drunk	
	a.	'I am drunk.' (Father is speaker)	
	b.	'You are drunk.' (Father is addressee)	
	c.	'He is drunk.' (Father is referent)	(Smyth 2005: 43)

Thus, these forms pattern more like common nouns: they are open-class elements, can be readily modified, and may be deictically flexible. These socially nuanced pronoun inventories do not constitute direct evidence for the ToD proposal: they do not make use of any presuppositional cline for the purposes of expressing negative politeness. However, they do not constitute direct evidence for [HON] analyses either: they pattern more like common nouns than pronouns, and any reflexes of honorific agreement are hard to detect.

A possible way to formally capture these forms would be to treat them as *imposters*: third person expressions with a first or second person interpretation, which received a brief discussion in Sect. 4.1. The English imposter *the authors* would be akin to Thai *khâa* 'servant,' in that both are third-person expressions which can point to the speaker; the English imposter *my lord* would be akin to Hindi *aqa* 'master,' in that both are third-person expressions which can point to the addressee. However, imposters characteristically display "homogeneity effects," where pronouns coreferent with imposters must often have the same deixis (Collins and Postal 2012: 141). In the absence of relevant data for the Southeast Asian languages under consideration, though, this parallel with imposters is merely a suggestion, and I do not make any analytical claim here.

6.3 Lexicalised honorifics

Section 3.2 provided a counterargument to [HON] analyses by pointing out the following. When examining a lexicalized honorific like Spanish *usted*, neither its morphological form nor its agreement patterns motivate a dedicated morphosyntactic feature, providing no evidence for [HON]. However, lexicalised honorifics do not necessarily provide support for the current proposal, either, because they raise the following question: what is their *synchronic* representation so that the proposed notions of taboo avoidance and negative politeness would still apply for current speakers? I address this question after illustrating another source of lexicalised honorifics, the plural.

A diachronic lens reveals another now-expected pattern, the recruitment of plural for honorification. In many languages, the familiar-honorific opposition is created via depluralization, after the plural form has developed into a singular honorific form. In Basque, the 2PL form, *zu*, was recruited for singular honorification, and eventually lost its plural denotation. To fill the resulting gap in the paradigm for plural, a new plural form *zuek* was created by adding the plural marker, *-ek* (Laka 1996: 94). In current Basque, *zu-zuek* forms the familiar-honorific opposition.

If a language forgoes redressive efforts, then number distinctions may be leveled. This is the case for Old English (where the formerly honorific 2PL *you* ousted its familiar counterpart *thou*)²² and Brazilian Portuguese (where the formerly 2PL *você* is ousting the familiar *tu* in most parts of Brazil). More drastic is the case of Old Norwegian, which was a SG-DU-PL system. When the then-2PL form, *bér*, was reappropriated for honorification, the then-2DU pronoun was subsequently reappropriated for plural. This resulted in the loss of the dual category (Guðmundsson 1972; Haugen 1975), so that the modern descendant of Old Norwegian, Icelandic, does not have a grammatical dual.

These diachronic processes can be seen from the intermediary stages of pronominal paradigms. Table 13 gives the origins of several honorific pronouns, showing that frequent sources are third-person abstractions and plural forms, which pertains for both current honorific forms (boldfaced) and intermediary, now-obsolete honorific forms (not boldfaced). Whenever known, the lifespan of a particular honorific form is given. Any known repercussions of these grammaticalization processes (repluralization, or loss of forms/categories) are also given in the last column. (Unfortunately, diachronic data is mostly available only for European languages, hence Table 13's typological skew.)

While these forms might have been the result of ToD for *former* speakers, it is an open question whether this is still the case for *current* speakers. If it is, then this goes against the intuition that pragmatic maxims (which ToD claims to be) are synchronic components of the grammar. If it is not, then this raises the question of how honorific meaning is represented *after* ToD has reshaped the pronominal paradigm. Does the subsequent grammaticalization make inaccessible the original motivation of taboo

²²Interestingly, the lack of repluralization in Standard English has resulted in a lacuna: there currently is no socially neutral or indexically neutral form of 2PL. *You guys*, for example, is only compatible with casual contexts, while *y'all* or *yous* indexes the speaker as a Southern speaker of American English (SUSE), and *you plural* indexes the speaker as a linguist. Thanks to Yasutada Sudo for raising this point.

Family	Language	Period	Honorific	Origin	Repercussions
Aslian	Semelai	Present	уғ	1pl	Repl.: $y \varepsilon = ?en$
			ji	2pl	Repl.: ji=?en
Cushitic	Kambaata	Present	'a'n(u)	2pl	Repl.: 'a'n-no'óot
Germanic	Danish	?	i	2pl	-
		Present	De	3pl	_
	Dutch	~1300-1600	gij	2pl	Repl.: gijlieden ('you people')
		\sim 1700s-present	и	3sg title	_
	German	~1100-1950	ihr	2pl	-
		~1550-1730	er/sie	3sg.m/f	-
		\sim 1950-present	Sie	3pl	-
	Icelandic	Present	þér	2pl	None: loss of grammatical dual
	Standard English	~ 1600 -present	уои	2pl	None: loss of 2SG thou by 1800
	S. Am. English	Present	y'all	2pl	Repl.: y'all'all, y'all y'all
Isolate	Basque	Present	zu	2pl	Repl.: zu-ek
Mongolic	Mongolian	Present	ta	2pl	Repl.: ta-nar, ta-nuus
Romance	Italian	?	voi	2pl	_
		Present	Lei	3sG title	-
	Portuguese	?	vos	2pl	-
		Present	você	3sG title	-
	Spanish	~1100-1700	vos	2pl	-
		?-1700	él/ella	ЗSG.M/F title	-
		1600-present	usted	3sG title	-
Slavic	Slovak	?	oni	3pl	_
		Present	vy	2pl	-
	Slovenian	?	oni	3pl	-
		Present	vy	2pl	-
Turkic	Turkish	Present	Siz	2pl	Siz-ler (associative honorific)

Table 13 The diachrony of honorific pronouns

avoidance, so that negative politeness is not in effect when speakers use lexicalised honorifics?

I do not know how to solve the dilemma here, and can only note that synchronic processes still sensitive to diachronic factors represent a more general problem. For example, Latinate stems in English exhibit a variety of idiosyncrasies. Of the adjectival prefixes *un-*, *in-*, only *in-* is used with Latinate stems and triggers place assimilation. Of the nominalizing suffixes *-ness*, *-ity*, only *-ity* combines with Latinate stems and triggers trisyllabic shortening (e.g. in *ag[ai]le-ag[1]lity*, *ins[ai]ne-ins[ɛ]nity*). Latinate affixes are also less productive in their application (Chomsky and Halle 1968; Aronoff 1976; Plag 2003).

To capture this, some have suggested that English contains Latinate and Germanic sublexicons, essentially baking in a stem's diachrony into the grammar, so that phonological processes selectively apply in one or the other. Aronoff (1976) goes so far to introduce the feature [\pm Latinate]. Others find it implausible that productive derivational exponents would display such selection; rather, the Latinate affixes are analyzed as lexicalized elements rather than productive ones (e.g. Blevins 2006). Regardless of the final approach, the phenomenon is pervasive enough that it necessitates an analysis. Both synchronic and diachronic patterns are at play, and both must be accounted for.

The synchronic representation of Latinate affixes and lexicalised honorifics pose similar issues, since they are phenomena which display sensitivity to both diachronic and synchronic factors. Hence, lexicalised honorifics only provide partial evidence for ToD. On one hand, their diachronic origins display ToD-compliant effects: in all cases, the innovation of honorifics follows predicted patterns of recruiting plural and third person forms. There is no stage of any language, current or intermediary, which recruit(ed) forms counter-exemplifying ToD. As Sect. 3.2 showed, these forms also recruit existing agreement. On the other hand, this calls into question ToD's status as a pragmatic maxim, since pragmatic maxims are typically conceived as synchronic components of the grammar.²³

In sum, there is no clear answer how to resolve the diachronic/synchronic tension, but it is worth noting that such tension does not pose a problem specific to lexicalised honorifics.

6.4 Counterexemplifying cases

There are a handful of languages which have been described to have unique honorific agreement, posing a challenge for the current proposal.

In Nengone (New Caledonia, Malayo-Polynesian), the suffix $-(\varepsilon)\eta o$ distinguishes the honorific series from the plain series for almost all numbers and persons (90).

(90) Nengone pronouns (Tryon 1967: 65)²⁴

Plain	SG	DU	PL	Honorific	SG	DU	PL
1EXCL	inu	ene	eņij	1EXCL	inu-ŋo	еп-єпо	епіў-єпо
1incl	-	eθew	εje	1incl	-	еθеw-єŋо	еў-єпо
2	bo, eme	теђо	buniĵ	2	bua, bua-ŋo	bumeŋo	bunij-eŋo
3	bən	bušenon	buič	3	bon-eno	bušenon-eno	buič-eno
	nubon (formal)	-			nubən-Eŋo		
	ič (trivial)	bušew (trivial)			-	-	

In Muna (Indonesia, Malayo-Polynesian), the first person inclusive dual pronoun *intaidi* is recruited for honorific address. Normally, this form triggers the agreement marker *do*- (91a). However, the honorific use of *intaidi* is accompanied by a unique agreement marker *to*- (91b).

(91) a. intaidi **do**-kala. 1INCL.DU FAM-go 'We (you and I) go.'

 $^{^{23}}$ It is also unclear how to measure "productivity" in the case of honorific meaning, compared to the case of affixation. With affixation, a standard measure of productivity tests if affixes are extended to novel wug forms. With honorific meaning, it is hard to imagine how something can be "productively honorific." Do we test if speakers extend the honorific to a never-before-encountered social category?

²⁴It is unclear what the author meant by "trivial" and "formal" here: no use conditions were given. "Trivial" pronouns do not have honorific counterparts.

b.	intaidi to- kala.	
	2.hon hon-go	
	'You (HON) go.'	(van den Berg 1989: 51)

to- also appears in polite imperatives (92).

(92)	to -kala Bapa.	
	HON-go sir	
	'Please go, sir.'	(van den Berg 1989: 226)

Overall, it seems that the familiar-polite opposition in Muna is morphologically distinguished in verbal agreement (but not in the pronouns). *do-* is 'familiar' agreement, while *to-* is 'polite' agreement.

In South Indian languages such as Maithili and Magahi (both Indo-Aryan), the case for honorific agreement is also persuasive. These languages have multiple tiers of honorificity in the pronouns—hon-honorific (NH), mid-honorific (MH), honorific (H)—each with their own agreement suffixes. An example of this is given in (93), the agreement paradigm for Maithili intransitivies (Yadav 1996: 168).

(93)

	PAST	PRES	FUT
1	-i / -əhũ	-i	$\emptyset \sim -ik$
2NH		-e / -ẽ	
2MH		-əh	
2H	-i / -əhũ	-i	$\emptyset \sim$ -əik
3NH	-ək	$\emptyset \sim -2$	ik
3H	-əinh / -ah / -əkhinh	-əith / -əthinh	-ah

It is worth noting, though, that Maithili and Magahi pronouns do not make number distinctions. Plurals are formed analytically, with quantifiers or with nouns (e.g. in Maithili, with the quantifier *səb* 'all,' or with the noun *lokəin* 'people'; Yadav 1996: 103). This is unlike other Indo-Aryan languages such as Hindi, which lacks honorificity distinctions, but distinguishes singular from plural number in agreement. Hence, honorificity distinctions might not have originated independently, but only via replacing previous number/person distinctions. In fact, Macaulay (2015b) notes exactly these diachronic paths for honorific pronouns in several Indo-Aryan languages.

It is important to note that such languages are the typological minority in the sample, and are far from universal, which is why Corbett (2012) cautions against [HON] as a universal morphosyntactic feature. These languages are also comparatively understudied: for Maithili agreement, the literature is inconsistent on the precise shape of the agreement paradigm (Yadav 1996; Bickel et al. 1999). Owing to these factors, it is still plausible that these honorific morphemes recruited previous number/person markers in the language. This highlights the need for detailed fieldwork on such languages.

7 Conclusions

Despite wide-ranging variation in social hierarchies and norms, languages display strikingly uniform patterns with regard to the grammaticalization of politeness. Singular number, first/second person, and definites are never recruited as honorifics in the 120 languages of the typology. Building on these generalizations, this paper proposes that the underlying representation of honorifics is intimately tied to the notion of semantic markedness. Honorifics are semantically unmarked elements, a crucial property which allows them to be used in accordance to ToD. This morphopragmatic algorithm resolves the mismatch between grammatical and referential values that honorific pronouns create.

The basic analysis was extended to account for the shape of politeness phenomena beyond honorific pronouns: to articulated honorification systems, semantic bleaching in avoidance registers, and polite imperatives. Across these multiple grammatical domains, the proposal is shown to be empirically adequate for 120 languages: it derives all attested patterns (94) while excluding unattested ones (95).

- (94) Attested patterns derived:
 - a. Honorific plural in SG-PL languages
 - b. Honorific dual-only systems in SG-DU-(PC)-PL languages
 - c. Honorific plural-only systems in SG-DU-(PC)-PL languages
 - d. Honorific dual and/or plural systems in SG-DU-(PC)-PL languages
 - e. Honorific third person
 - f. Honorific indefiniteness
 - g. Semantic bleaching in avoidance registers
- (95) Unattested patterns excluded:
 - a. Honorific singular
 - b. Honorific first/second person
 - c. Honorific definiteness
 - d. Honorific case

In contrast with analyses invoking a dedicated grammatical feature for honorification, this proposal has posited novel uses of existing machinery in formal semantics and pragmatics. I make use of a presuppositional calculus based on the interaction of semantic markedness with pragmatic maxims to account for the same facts. While honorifics do carry extra-grammatical meaning, they do not require extra-ordinary analyses. Rather, they are shown to sit at the intersection of encoded meaning and pragmatic reasoning. Nothing in this account appeals to phenomenon-specific assumptions, an approach with empirical, analytical, and theoretical advantages.

Such a treatment of honorifics initiates a new general research agenda, whereby grammaticalized social meanings (honorification) is directly derived from existing machinery in formal semantics and pragmatics. Hopefully, we have explored what a leaner grammar would look like—one which still accounts for the same empirical facts, but without *ad hoc* machinery. This economical view of grammar affords us a fresh outlook at how meanings previously delegated to the realms of sociolinguistics and anthropology may be represented by formal semantics.

Acknowledgements Many thanks to Coppe van Urk, Daniel Harbour, Yasutada Sudo, Angelika Kratzer, Pietro Baggio, Hagit Borer, Omri Doron, Adéle Mortier, Ido Benbaji, Norvin Richards, and Patrick Elliot, for their insightful input, valuable judgements, and enduring encouragement.

Funding Note Open Access funding provided by the MIT Libraries.

Declarations

Conflicts of interest/Competing interests The author has no relevant financial or non-financial interests to disclose.

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References

- Ackema, Peter. 2014. Semantic versus syntactic agreement in anaphora: The role of identity avoidance. In *Identity Relations in Grammar*, 161–196. Boston: De Gruyter.
- Ackema, Peter, and Ad Neeleman. 2018. Features of person: From the inventory of persons to their morphological realization. Linguistic inquiry monographs. Cambridge, MA: MIT Press.
- Ahn, Sung Ho. 2002. Honorification and AgrP. Talk delivered at 2002 Winter Conference of Linguistics Society of Korea, Seoul National University.
- Anderson, Gregory D. S., Toshiki Osada, and K. David Harrison. 2008. Ho and the other Kherwarian languages. In *The Munda languages*, 195–255. London and New York: Routledge.
- Aronoff, Mark. 1976. Word formation in generative grammar. Cambridge, MA: MIT Press.
- Asher, Ronald E., and T. C. Kumari. 1997. *Malayalam. Routledge descriptive grammars*. London: Routledge.
- Bale, Alan, Michaël Gagnon, and Hrayr Khanjian. 2011. On the relationship between morphological and semantic markedness. *Morphology* 21(2): 197–221.
- Begay, Kayla Rae. 2017. Wailaki grammar. PhD diss, University of California, Berkeley.
- Belay, Teshome. 2015. A grammar of Khimt'anga, Ethiopia. PhD diss, Addis Ababa University.
- Biberauer, Theresa. 2018. Pro-drop and emergent parameter hierarchies. In Null subjects in generative grammar: A synchronic and diachronic perspective, eds. Federica Cognola and Jan Casalicchio, 94–140. London: Oxford University Press.
- Bickel, Balthasar, Walter Bisang, and Yogendra P Yādava. 1999. Face vs. empathy: The social foundation of Maithili verb agreement. *Linguistics* 37(3): 481–518.
- Blevins, James P. 2006. English inflection and derivation. In *The handbook of English linguistics*, eds. Bas Aarts and April McMachon, 507–536. Oxford: Blackwell Publishing.
- Blutner, Reinhard, Anne Bezuidenhout, Richard Breheny, Sam Glucksberg, and Francesca Happé. 2003. *Optimality theory and pragmatics*. Berlin: Springer.
- Bobaljik, Jonathan David, and Cynthia Levart Zocca. 2011. Gender markedness: The anatomy of a counterexample. *Morphology* 21(2): 141–166.
- Boeckx, Cedric, and Fumikazu Niinuma. 2004. Conditions on agreement in Japanese. *Natural Language* & *Linguistic Theory* 22(3): 453–480.
- Brown, Penelope, and Stephen C. Levinson. 1978. Universals in language usage: Politeness phenomena. Cambridge: Cambridge University Press.
- Chafe, Wallace. 1990. Uses of the defocusing pronominal prefixes in Caddo. *Anthropological Linguistics* 32(1/2): 57–68.

- Choi, Jaehoon, and Heidi B. Harley. 2019. Locality domains and morphological rules: Phases, heads, nodesprouting and suppletion in Korean honorification. *Natural Language & Linguistic Theory* 34(4): 1319–1365.
- Choi, Kiyong. 2010. Subject honorification in Korean: In defense of Agr and Head-Spec agreement. *Language Research* 46(1): 59–82.
- Chomsky, Noam, and Morris Halle. 1968. The sound pattern of English. Cambridge, MA: MIT Press.
- Christofaki, Rodanthi. 2018. Projected self: The de se across dimensions and beyond pronouns. PhD diss, University of Cambridge.
- Chung, Inkie. 2009. Suppletive verbal morphology in Korean and the mechanism of vocabulary insertion. *Journal of Linguistics* 45(3): 533–567.
- Collins, Chris, and Paul Martin Postal. 2012. *Imposters: A study of pronominal agreement*. Cambridge, MA: MIT Press.
- Comrie, Bernard. 1976. Linguistic politeness axes: Speaker-addressee, speaker-referent, speakerbystander. *Pragmatics Microfiche* 1(7): 1–12.
- Cooke, Joseph. 1965. Pronominal reference in Thai, Burmese, and Vietnamese. PhD diss, University of California, Berkeley.
- Corbett, Greville G. 2000. Number. Cambridge, UK: Cambridge University Press.
- Corbett, Greville G. 2012. Features. Cambridge, UK: Cambridge University Press.
- Croft, William. 2003. Typology and universals. Cambridge, UK: Cambridge University Press.
- Cumberland, Linda A. 2005. A grammar of Assiniboine: A Siouan language of the Northern Plains. PhD diss, Indiana University.
- De Reuse, Willem Joseph, and Phillip Goode. 2006. A practical grammar of the San Carlos Apache language, Vol. 51. Lincom Europa.
- Deepak, Alok, and Mark Baker. 2018. On the mechanics (syntax) of indexical shift: Evidence from allocutive agreement in Magahi. Ms., Rutgers University.
- Dixon, Robert Malcolm W. 1988. A grammar of Boumaa Fijian. Chicago: University of Chicago Press.
- Dixon, Robert Malcom W. 1972. *The Dyirbal language of North Queensland*. Cambridge: Cambridge University Press.
- Dvořák, Bostjan, and Uli Sauerland. 2006. The semantics of the Slovenian dual. In *Proceedings of FASL*, Vol. 14, 98–112.
- Eberhard, Kathleen M. 1997. The marked effect of number on subject-verb agreement. *Journal of Memory* and Language 36(2): 147–164.
- Etxepare, Ricardo. 2006. Number long distance agreement in (substandard) Basque. Anuario del Seminario de Filología Vasca "Julio de Urquijo" 40(1-2): 303–349.
- Fleming, Luke. 2017. Honorific alignment and pronominal paradigm: Evidence from Mixtec, Santali, and Dhimal. In *Proceedings of the 43rd annual meeting of the Berkeley Linguistics Society*, eds. Julia Nee, Margaret Cychosz, Dmetri Hayes, Tyler Lau, and Emily Remirez, Vol. 1, 95–120.
- François, Alexandre. 2005. A typological overview of Mwotlap, an Oceanic language of Vanuatu. Linguistic Typology 9(1): 115–146.
- Goossen, Irvy W. 1995. Diné bizaad: Speak, read, write Navajo. Salina Bookshelf.
- Greenberg, Joseph H. 1963. Some universals of grammar with particular reference to the order of meaningful elements. In *Universals of language*, ed. Joseph H. Greenberg, 73–113. Cambridge, MA: MIT Press.
- Guðmundsson, Helgi. 1972. Pronominal dual in Icelandic. University of Iceland publications in linguistics 2. Reykjavík: Institute of Nordic Linguistics.
- Haegeman, Liliane, and Virginia Hill. 2013. The syntacticization of discourse. *Syntax and Its Limits* 48: 370–390.
- Haiman, John. 2011. Cambodian: Khmer, Vol. 16. John Benjamins Publishing.
- Hale, Kenneth. 1986. Notes on world view and semantic categories: Some Warlpiri examples. In *Features and projections*, eds. Peter Muysken and Henk van Riemsdijk, 233–254. Dordrecht: Foris.
- Hale, Kenneth Locke. 1973. Person marking in Warlbiri. In A festschrift for Morris Halle, eds. Stephen R. Anderson and Paul Kiparsky, 308–344. New York: Holt, Rinehart and Winston.
- Harbour, Daniel. 2014. Paucity, abundance, and the theory of number. Language 90(1): 185-229.
- Harbour, Daniel. 2016. Impossible persons, Vol. 74. Cambridge, MA: MIT Press.
- Hasegawa, Nobuko. 2006. Honorifics. In The Blackwell companion to syntax, eds. Martin Everaert and Henk van Riemsdijk, Vol. 1, 493–543. Blackwell Publishing.
- Haspelmath, Martin. 2006. Against markedness (and what to replace it with). *Journal of Linguistics* 42(1): 25–70.

- Haugen, Einar. 1975. Pronominal address in Icelandic: From you-two to you-all. Language in Society 4(3): 323–339. https://doi.org/10.1017/S0047404500006709.
- Haviland, John B. 1979. Guugu Yimidhirr brother-in-law language. Language in Society 8(2-3): 365–393.
- Heim, Irene. 1991. Artikel und definitheit. In *Semantics: An international handbook of contemporary research*, eds. Arnim von Stechow and Dieter Wunderlich, 487–535. Berlin: de Gruyter.
- Heim, Irene. 2008. Features on bound pronouns. In *Phi theory: Phi-features across modules and interfaces*, eds. David Adger, Susana Béjar, and Daniel Harbour, 35–56. London: Oxford University Press.
- Heim, Irene. 2011. Definiteness and indefiniteness. In Semantics: An international handbook of natural language meaning, eds. Claudia Maienborn, Klaus von Heusinger, and Paul Portner. de Gruyter Mouton. Chap. 2.
- Heim, Irene, and Angelika Kratzer. 1998. Semantics in generative grammar. Wiley-Blackwell.
- Helm, June. 1965. Bilaterality in the socio-territorial organization of the Arctic Drainage Dene. *Ethnology* 4(4): 361–385.
- Hinds, John. 1971. Personal pronouns in Japanese. Glossa 5(2): 146-155.
- Huckett, Joyce. 1974. Notes on Iduna grammar. Workpapers in Papua New Guinea Languages 3: 63-133.
- Ishiyama, Osamu. 2019. *Diachrony of personal pronouns in Japanese: A functional and cross-linguistic perspective*. Amsterdam: John Benjamins.
- Ivana, Adrian, and Hiromu Sakai. 2007. Honorification and light verbs in Japanese. Journal of East Asian Linguistics 16(3): 171–191.
- Keating, Elizabeth, and Alessandro Duranti. 2006. Honorific resources for the construction of hierarchy in Samoan and Pohnpeian. *The Journal of the Polynesian Society* 115(2): 145–172.
- Kishimoto, Hideki. 2010. Honorific agreement in Japanese. Canadian Journal of Linguistics/Revue canadienne de linguistique 55(3): 405–415.
- Koul, Omkar N., and Kashi Wali. 2006. Modern Kashmiri grammar, Vol. 74. Springfield: Dunwoody Press.
- Kratzer, Angelika. 2009. Making a pronoun: Fake indexicals as windows into the properties of pronouns. Linguistic Inquiry 40(2): 187–237.
- Krifka, Manfred. 1989. Nominal reference, temporal constitution and quantification in event semantics. In Semantics and contextual expressions, eds. Renate Bartsch, Johan van Benthem, and Peter van Emde Boas, 75–116. Dordrecht: Foris Publications.
- Krifka, Manfred. 2019. Honorific and affiliative uses of dual and paucal number in Daakie. In Selected proceedings from the tenth conference on Oceanic linguistics (cool10), eds. Paul Unger and Brenda H. Boerger, 62–76. Dallas, Texas: SIL International.
- Laka, Itziar. 1996. A brief grammar of Euskara, the Basque language. Euskal Herriko Unibertsitatea, University of the Basque Country.
- Laughren, Mary. 2001. What Warlpiri 'avoidance' registers do with grammar. In Forty years on: Ken Hale and Australian languages, eds. Jane Simpson, David Nash, Mary Laughren, Peter Austin, and Barry Alpher, 199–225. Canberra: Pacific Linguistics.
- Laughren, Mary Napaljarri, Robin Japanangka Granites, Kenneth Locke Hale, and Robert Hoogenraad. 1996. A learner's guide to Warlpiri: Tape course for beginners. Wangkamirlipa Warlpirilki. Institute for Aboriginal Development.
- Leslau, Wolf. 2000. Introductory grammar of Amharic, Vol. 21. Otto Harrassowitz Verlag.
- Listen, Paul H. 1999. The emergence of German polite Sie: Cognitive and sociolinguistic parameters. Peter Lang.
- Macaulay, Benjamin K. 2015a. Synchronic and diachronic trends in phi-features of South Asian languages. In Proceedings of the 31st South Asian languages analysis roundtable (sala-31), 49–51.
- Macaulay, Benjamin Kirkland. 2015b. The morphosyntax of formality: A typology and inclusion in feature geometry. University of Pennsylvania Working Papers in Linguistics 21(1): 18.
- McCready, Elin. 2019. The semantics and pragmatics of honorification: Register and social meaning. Vol. 11 of Oxford studies in semantics and pragmatics. London: Oxford University Press.
- McFadden, Thomas. 2017. The morphosyntax of allocutive agreement in Tamil. Ms., Leibniz-Zentrum Allgemeine Sprachwissenschaft.
- Mchombo, Sam. 2004. The syntax of Chichewa. Cambridge: Cambridge University Press.
- Miyagawa, Shigeru. 2017. Agreement beyond phi. Vol. 75 of Linguistic inquiry monographs. Cambridge: MIT Press.
- Miyaoka, Osahito. 2012. A grammar of Central Alaskan Yupik (CAY), Vol. 58. Berlin: Walter de Gruyter.
- Nevins, Andrew. 2011. Multiple Agree with clitics: Person complementarity vs. omnivorous number. Natural Language & Linguistic Theory 29(4): 939–971.

Niinuma, Fumikazu. 2003. The syntax of honorification. PhD diss, The University of Connecticut.

- Noyer, Rolf. 1992. Features, positions and affixes in autonomous morphological structure. PhD diss, Massachusetts Institute of Technology.
- Oyharçabal, Bernard. 1993. Verb agreement with nonarguments: On allocutive agreement. In *Generative studies in Basque linguistics*, eds. Jon Ortiz de Urbina and José Ignacio Hualde, 89–114. John Benjamins Publishing.
- Penny, Ralph. 1991. A History of the Spanish Language. Cambridge: Cambridge University Press.
- Peterson, John. 2011. A grammar of Kharia. Vol. 1 of Brill's studies in South and Southwest Asian languages. Leiden: Brill.
- Plag, Ingo. 2003. Word-formation in English. Cambridge, UK: Cambridge University Press.
- Podobryaev, Alexander. 2017. Three routes to person indexicality. *Natural Language Semantics* 25(4): 329–354.
- Portner, Paul, Miok Pak, and Raffaella Zanuttini. 2019. The speaker-addressee relation at the syntaxsemantics interface. *Language* 95(1): 1–36.
- Potts, Christopher. 2005. *The logic of conventional implicatures. Oxford studies in theoretical linguistics*. Oxford: Oxford University Press.
- Potts, Christopher, and Shigeto Kawahara. 2004. Japanese honorifics as emotive definite descriptions. In Semantics and linguistic theory, Vol. 14, 253–270.
- Priestly, Tom M. S. 1993. Slovene. In *The Slavonic languages*, eds. Bernard Comrie and Greville G. Corbett, 388–451. London: Routledge.
- Refsing, Kirsten. 1986. The Ainu language: The morphology and syntax of the Shizunai dialect. Aarhus: Aarhus Univ. Press.
- Rehg, Kenneth L. 1981. Ponapean reference grammar. University of Hawaii Press.
- Rennison, John R. 1997. Koromfe: Descriptive grammars. London and New York: Routledge.
- Rezac, Milan. 2016. On the (un)interpretability of phi-agreement. Zenodo. https://doi.org/10.5281/zenodo. 5823648.
- Rubino, Carl Ralph Galvez. 1999. A reference grammar of Ilocano. PhD diss, University of California, Santa Barbara.
- Rumsey, Alan. 1982. Gun-Gunma: An Australian Aboriginal avoidance language and its social functions. In Languages of kinship in Aboriginal Australia, eds. Francesca Merlan, Jeffrey Heath, and Alan Rumsey. Oceania linguistic monographs, 160–181. Australia: University of Sydney.
- Rushforth, Scott. 1981. Speaking to 'relatives-through-marriage': Aspects of communication among the Bear Lake Athapaskans. *Journal of Anthropological Research* 37(1): 28–45.
- Sakai, Hiromu, and Adrian Ivana. 2009. Rethinking functional parametrization: A view from honorification in the nominal domain in Japanese. *English Linguistics* 26(2): 437–459.
- Sauerland, Uli. 2003. A new semantics for number. In *Proceedings of SALT XIII*, eds. R. Young and Y. Zhou, 258–275. Cornell, Ithaca: CLC Publications.
- Sauerland, Uli. 2008a. Implicated presuppositions. In *The discourse potential of underspecified structures*, Vol. 8, 581–600. Berlin: De Gruyter.
- Sauerland, Uli. 2008b. On the semantic markedness of ϕ -features. In *Phi theory: Phi-features across modules and interfaces*, eds. Daniel Harbour, David Adger, and Susana Béjar, 57–82. London: Oxford University Press.
- Sauerland, Uli, J. Andersen, and K. Yatsushiro. 2005. The plural is semantically unmarked. In *Linguistic evidence: Empirical, theoretical and computational perspectives*, eds. Stephan Kepser and Marga Reis, 413–434. Berlin: Mouton de Gruyter.
- Savishinsky, Joel S. 1970. Kinship and the expression of values in an Athabascan Bush community. *Western Canadian Journal of Anthropology* 2(1): 31–59.
- Schachter, Paul, and Fé T. Otanes. 1972. *Tagalog reference grammar*. Berkeley: University of California Press.
- Schiffman, Harold F. 1983. A reference grammar of spoken Kannada. Seattle: University of Washington Press.
- Senge, Chikako. 2015. A grammar of Wanyjirra, a language of Northern Australia. PhD diss, The Australian National University.
- Shimelman, Aviva. 2017. A grammar of Yauyos Quechua. Studies in diversity linguistics. Berlin: Language Science Press.
- Siewierska, Anna. 2004. Person. Cambridge, UK: Cambridge University Press.
- Silverstein, Michael. 1976. Hierarchy of features and ergativity. In *Grammatical categories in Australian languages*, ed. R. M. W. Dixon, 112–171. Canberra: Australian Institutes of Aboriginal Studies.

Simon, Horst. 2003. From pragmatics to grammar: Tracing the development of "respect" in the history of the German pronouns of address. In *Diachronic perspectives on address term systems*, eds. Irma Taavitsainen and Andreas H. Jucker, 85–134. John Benjamins Publishing.

Smyth, David. 2005. Thai: An essential grammar. London and New York: Routledge.

- Speas, Peggy, and Carol Tenny. 2003. Configurational properties of point of view roles. In Asymmetry in grammar. Volume 1: Syntax and semantics, ed. Anna Maria Di Sciullo, 315–344. Amsterdam and Philadelphia: John Benjamins Publishing Company.
- Spector, Benjamin. 2007. Aspects of the pragmatics of plural morphology: On higher-order implicatures. In *Presuppositions and implicatures in compositional semantics*, eds. Uli Sauerland and P. Statev, 243–281. Houndmills: Palgrave-Macmillan.
- Stavinschi, Alexandra Corina. 2015. Romanian. In *Manual of deixis in romance languages*, 17–44. Berlin: De Gruyter.
- Strawson, Peter F. 1950. On referring. Mind 59(235): 320-344.
- Suharno, Ignatius. 1982. A descriptive study of Javanese. Materials in languages of Indonesia. Australian National University.
- Thompson, Anie. 2011. Irregularity in Japanese honorifics. In Morphology at Santa Cruz: Papers in honor of Jorge Hankamer. UC Santa Cruz.
- Toribio, Almeida Jacqueline. 1990. Specifier-head agreement in Japanese. In *Proceedings of WCCFL*, Vol. 9, 535–548.
- Treis, Yvonne. 2008. A grammar of Kambaata, part 1: Phonology, morphology, and nonverbal predication. Cushitic language studies. Cologne: Rüdiger Köppe Verlag.
- Tsujimura, Toshiki. 1968. Keigo no shi-teki kenkyuu (The historical study of honorifics). Tokyo: Tokyodo Shuppan.
- Tryon, Darrell T. 1967. Nengone grammar. Research School of Pacific and Asian Studies, The Australian National University.
- Tucker, Matthew A., Ali Idrissi, and Diogo Almeida. 2015. Representing number in the real-time processing of agreement: Self-paced reading evidence from Arabic. *Frontiers in Psychology* 6: 347.
- Tuggy, David H. 1979. Tetelcingo Nahuatl. In Modern Aztec grammatical sketches, ed. Ronald W. Langacker, 1–140. Summer Institute of Linguistics.
- Ura, Hiroyuki. 2000. *Checking theory and grammatical functions in Universal Grammar*. London: Oxford University Press.
- van den Berg, René. 1989. A Grammar of the Muna Language. Vol. 139 of Verhandelingen van het koninklijk instituut voor taal-, landen volkenkunde. Dordrecht: Foris.
- Volpe, Mark. 2009. Honorifics in Japanese: A Distributed Morphology approach to their morphology. Ms. Available at http://ling.auf.net/lingbuzz/000520.
- von Prince, Kilu. 2015. A grammar of Daakaka. Berlin and Boston: De Gruyter Mouton.
- Wakasa, Motomichi. 2008. A descriptive study of the modern Wolaytta language. PhD diss, University of Tokyo.
- Wang, Ruoan, and Takanobu Nakamura. 2019. Japanese honorification as nominalization: Taking [HON] out of honorifics. In ConSOLE XXVII: Proceedings of the 25th conference of the student organization of linguistics in Europe (21-23 February 2019, Berlin). Leiden: Leiden University Centre for Linguistics.
- Weber, David. 1989. A grammar of Huallaga Huánuco Quechua, Vol. 112. Berkeley: University of California Press.
- Wechsler, Stephen. 2011. Mixed agreement, the person feature, and the index/concord distinction. Natural Language & Linguistic Theory 29(4): 999–1031.
- Wetzel, Patricia J. 1994. A movable self: The linguistic indexing of uchi and soto. In Situated meaning: Inside and outside in Japanese self, society, and language, eds. Jane M. Bachnik, Jr. Quinn, and Charles J., 73–87. Princeton, NJ: Princeton University Press.
- Wilkins, David P. 1989. Mparntwe Arrente (Aranda): Studies in the structure and semantics of grammar. PhD diss, The Australian National University.
- Wurm, Stephen Adolphe, and Peter Mühlhäusler. 1985. Handbook of Tok Pisin (New Guinea Pidgin). Pacific Linguistics, The Australian National University.
- Yadav, Ramawatar. 1996. A reference grammar of Maithili. Berlin: Mouton de Gruyter.
- Yatsushiro, Kazuko, Uli Sauerland, and Artemis Alexiadou. 2017. The unmarkedness of plural: Crosslinguistic data. In Proceedings of the 41st annual Boston University conference on language development, eds. Maria LaMendola and Jennifer Scott, 753–765. Somerville, MA: Cascadilla Press.
- Zu, Vera. 2013. Probing for conversation participants: The case of Jingpo. In Proceedings of the annual regional meeting of the Chicago Linguistic Society, 379–389.

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