

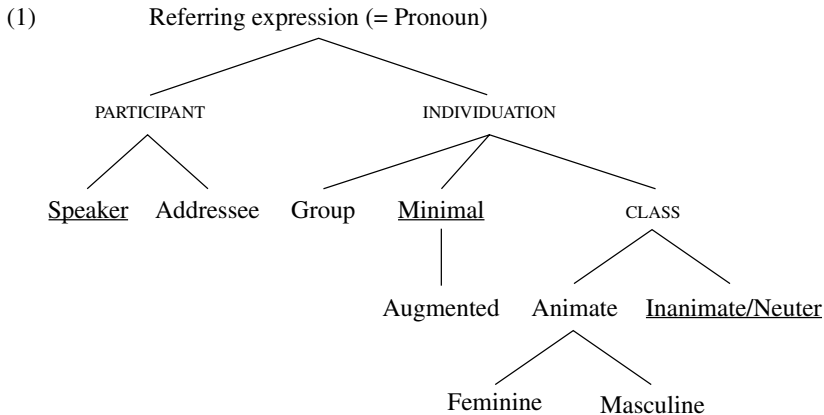
DISCUSSION NOTE

On markedness asymmetries in person and number*

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1. INTRODUCTION. Extensive typological research on systems of pronouns and agreement has led to a number of important discoveries about the representation of morpho-syntactic features. For example, Harley and Ritter (2002; H&R) propose a universal geometry of person, number, and gender features (1), which captures a wide array of pronominal systems in the languages of the world (p. 486). H&R argue against the more traditional approach of using unstructured binary features to represent person and number categories, maintaining that such approaches can only stipulate certain implicational universals noted by Greenberg (1963).¹ H&R propose instead that pronominal categories are represented by a hierarchical organization of privative features (see also Bonet 1991, Béjar 2003, Nevins 2003). Under this approach, implicational universals can be encoded in terms of dependency relations.

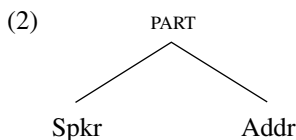


H&R’s analysis represents an important step toward capturing linguistic universals, and I assume that their proposed geometry is essentially correct. However, I argue that it needs to be modified in order to capture certain crosslinguistic markedness asymmetries in person and number.

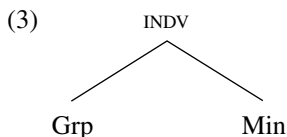
H&R treat certain person and number categories as conjunctively specified. For example, if a language has a special category for inclusive person, this category has a Participant node with two dependent person features, [Speaker] and [Addressee] (p. 490).

* This discussion note has benefited greatly from my colleagues’ comments and questions, especially those of Heidi Harley, Elizabeth Ritter, Andrew Nevins, Daniel Harbour, Rose-Marie Déchaine, Elizabeth Cowper, Brian Joseph, and two anonymous *Language* referees. Sincere thanks also go to the participants in the 2003 Workshop on the Form and Function of Pronouns at the University of British Columbia, and in the 2004 Workshop on Phi-Theory at McGill University.

¹ See Zwicky 1977, Anderson 1992, Noyer 1992, Halle & Marantz 1993, Halle 1997, and Harbour 2003 as examples of such approaches.

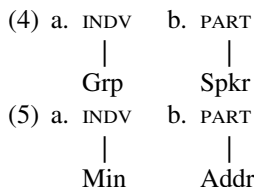


Likewise, if a language has a special category for dual number, the Individuation node of this category has two number features—[Minimal], also used for singular number, and [Group], also used for plural (p. 492).²



This analysis of the dual predicts Greenberg's (1963:94) observation that a language with a dual number category will also have a plural, on the straightforward assumption that features that occur in conjunction can also occur alone (H&R, p. 509). For example, if [Minimal] and [Group] can combine to form the dual, they can also occur separately to form the singular and the plural.

The [Minimal] and [Group] features have the same hierarchical position in H&R's geometry: both are dependents of the Individuation node. Likewise, both [Speaker] and [Addressee] are dependents of the Participant node. If nothing more is said, then, the plural and first person representations in 4a and 4b below are structurally equivalent to their singular and second person counterparts in 5a and 5b.



Despite this structural equivalence, there appears to be an important asymmetry between the representations in 4 and those in 5. This asymmetry emerges in languages lacking conjunctively specified representations.

In a language with no dual category, the dual is conflated with the plural, not with the singular. For example, English makes no systematic distinction between dual and plural (Table 1, row a). In this case, H&R assume that dual and plural number are represented with the feature [Group], as in 4a (p. 489). However, if [Group] and [Minimal] are equivalent, languages should equally allow all minimal sets—sets of one or two—to be represented as [Minimal], as in Table 1, row b. None of the systems described in Corbett's (2000) survey of about 250 number systems conflates singular and dual into a single category. Thus, it appears that [Group] and [Minimal] are not completely equivalent.

	SINGULAR	DUAL	PLURAL
a.	it		they
b.	X		Y

TABLE 1. Number contrasts predicted if [Group] and [Minimal] are equivalent.

² I omit the Class node for convenience and continue to do so throughout.

Similarly, in a language without an inclusive category, the inclusive is conflated with first person, not with second. For example, English lacks a distinction between inclusive and exclusive first person (Table 2, row a). Again, if [Speaker] and [Addressee] are equivalent, it should be equally possible to conflate inclusive with second person, as in Table 2, row b. In fact, however, Table 2, row b is unattested (Zwicky 1977, Noyer 1992). It appears that, like [Group] and [Minimal], [Speaker] and [Addressee] are not completely equivalent.

a.	1ST PERSON	INCLUSIVE	2ND PERSON
	we		you
b.	X		Y

TABLE 2. Participant contrasts predicted if [Speaker] and [Addressee] are equivalent.

It is important here to distinguish between syncretism and what I call CONFLATION. Syncretism arises when a distinction between two syntactic representations is neutralized morphologically. Some cases of syncretism are systematic, while others presumably involve accidental homophony, for instance as the result of independent sound changes. Conflation, by contrast, arises when a distinction permitted by universal grammar is absent from the syntax of a particular language. Languages with a dual category may show syncretism between dual and singular (e.g. see H&R, pp. 492–93 on Hopi), but languages without a dual category conflate the dual with the plural. Likewise, languages with an inclusive category may show syncretism between inclusive and second person (e.g. see Harbour 2003:47–48 on Kiowa), but languages without an inclusive category conflate the inclusive with first person.

H&R do not explicitly discuss these observations. They do, however, provide a means of capturing them. They propose that the morphosyntactic features of a given language are subject to MINIMAL CONTRASTIVE UNDERSPECIFICATION: only contrastive features appear in the underlying representation, while noncontrastive features are filled in by default rules (p. 498; see also Rice & Avery 1995, Brown 1997).³ H&R propose that a language lacking a dual category has only [Group] in the underlying representation, while [Minimal] is filled in by a default rule when [Group] is absent (p. 489). Thus the underlying representation of the system in Table 1a is as in 6: the singular category has no number features (6a), while the dual/plural category has only the feature [Group] (6b).

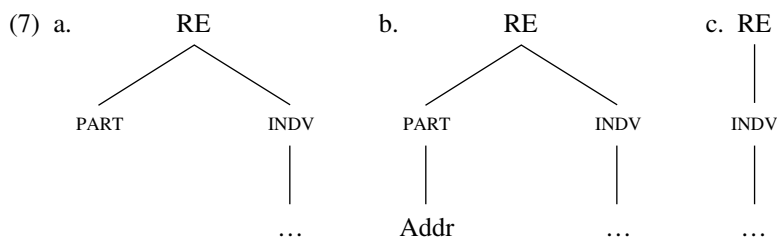
(6) a. INDV	b. INDV
	Grp

Under this view, there is an important asymmetry between [Group] and [Minimal]. [Group] is activated by a contrast between only two number categories, as in Table 1a, while a three-way contrast is required to activate [Minimal]. In this sense, [Group] is a PRIMARY DEPENDENT of the Individuation node, while [Minimal] is a SECONDARY DEPENDENT. I propose that this asymmetry is universal.

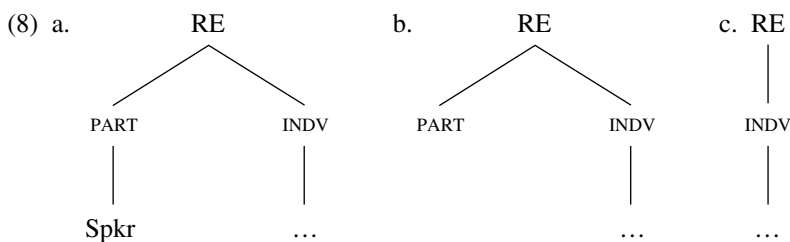
I propose to exploit this analysis to capture the observations noted above. In a nutshell, I argue that the more specified category in 6b can be used for any set compatible with its features—that is, any group. The underspecified category in 6a can be used for any remaining (i.e. singleton) sets. To extend this analysis to the person domain, it is necessary to modify H&R’s theory of default person specification. H&R propose that in a

³ A referee also notes the relevance of the literature on default inheritance networks; for example, see Evans & Gazdar 1996.

language without an inclusive category, [Speaker] is the default specification of the Participant node, analogous to [Minimal] in the number domain (p. 489). Under this view, first person and inclusive are represented as in 7a, second person as in 7b, and third person as in 7c. Third person has the simplest structure, with no Participant node; this reflects its status as the least marked person category (Benveniste 1966, Jakobson 1971).



However, I argue that [Speaker], not [Addressee], is the primary dependent of the Participant node. Thus, in a language without an inclusive category, first person and inclusive are represented as the most specified category in 8a, while second person is represented as the less specified category in 8b. The third person category in 8c remains the least specified. Under this approach, [Speaker] is activated by a single contrast between Participant categories, while [Addressee] is activated only by an additional contrast.



In order to make the proposed revisions to H&R's analysis, it is necessary first to outline an explicit account of the semantic interpretation of morphosyntactic representations. This account makes it possible to establish that [Speaker] and [Group] are the primary dependents of their respective dominating nodes, while [Addressee] and [Minimal] are the corresponding secondary dependents. The empirical evidence suggests that the asymmetries captured by this primary/secondary distinction are universal, despite the apparent challenge of languages with syncretism between inclusive and second person, such as Algonquian.

2. THE SUBSET PRINCIPLE AND CONTRASTIVE INTERPRETATION. H&R propose that crosslinguistic variation in pronominal inventories arises from variation in the inventory of (active) morphosyntactic features. For example, they propose that the entire Individuation node, along with all of the features it dominates, is absent from Maxakalí and Kwakwala (Kwakiutl) (p. 503); thus, these languages lack genuine number distinctions. H&R assume that such crosslinguistic variation in feature geometries is syntactic—that is, it arises in the lexical items that are manipulated by the syntax and interpreted semantically. This assumption is necessary under a lexicalist theory of morphology, though not under a LATE INSERTION theory, where systematic morphological variation can also occur in a postsyntactic morphological component that has no effect on seman-

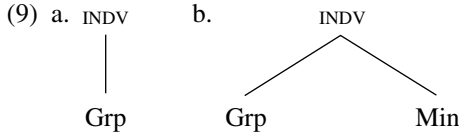
tic interpretation (Anderson 1992, Halle & Marantz 1993). In fact, H&R suggest that some systematic syncretism is purely morphological (see, for example, their discussion of Koasati on p. 512). However, I adopt H&R's view that crosslinguistic variation in pronominal systems is largely syntactic.

One consequence of this approach is that the semantic interpretation of a morphosyntactic category can vary crosslinguistically. Indeed, H&R make this explicit:

The interpretation of subtrees of the geometry may be relativized in tightly constrained ways so that language-specific interpretation of a given feature will depend in part upon the contrasts available within that language. (p. 483)

This claim raises intriguing questions about the nature of the constraints on the interpretation of morphosyntactic categories. If the interpretation of a given category could vary arbitrarily from one language to another, H&R's geometry would have little predictive power. In order to preserve their insights, therefore, it is important to develop a clear account of the relationship between morphosyntax and semantics.

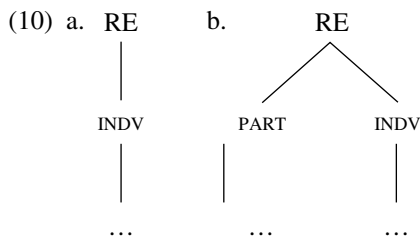
H&R note that the semantic interpretation of a morphosyntactic category is determined in part by the available alternative categories (see also de Saussure 1971 [1916]: 161). For example, in a language with two number categories (singular and plural), H&R propose that the representation in 9a is interpreted as referring to a group—that is, to a set containing more than one individual (p. 490). By contrast, in a language with a dual number category, a set containing only two individuals (a minimal group) is represented by the conjunctively specified category in 9b. When such a contrast is available, the representation in 9a generally refers to nonminimal groups (p. 492 and Corbett 2000:20). Thus, the interpretation of 9a depends on whether the representation in 9b is available or not.



The contrastive interpretations just described are predicted if the interpretation of pronominal lexical categories is determined in descending order of specificity, following the SUBSET PRINCIPLE.⁴ Under this view, interpretation is determined first for the most specified category, which can denote any set of individuals compatible with its features; categories with a subset of the features of the most specified category can then denote any remaining sets of individuals. For example, if 9b exists in the lexicon, it can denote any set of individuals that constitutes a minimal group (dual sets), while 9a can denote any remaining set of individuals that constitutes a group (plural sets). But if 9b is absent from the lexicon, then 9a can denote any set of individuals that constitutes a group (including dual and plural sets).

The theory of contrastive interpretations also applies to the interpretation of person categories. The features of the third person category in 10a are a subset of the features of other person categories, which also have the Participant node, as in 10b. As predicted by the contrastive theory, 10a can only denote sets of individuals not containing a speech-act participant—that is, third person sets.

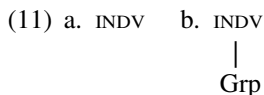
⁴ This proposal is logically compatible either with a one-time procedure assigning meanings to lexical items and then storing them in the lexicon, or with a postsyntactic computation of lexical meanings for each syntactic derivation.



While H&R do not develop an explicit theory of contrastive interpretation, they seem to assume something like the analysis above to account for the context-dependent interpretation of morphosyntactic categories. I assume this analysis for the remainder of the discussion note.

3. PRIMARY AND SECONDARY DEPENDENTS.

3.1. THE INDIVIDUATION NODE. As noted in §1, H&R treat [Minimal] as the default specification of the Individuation node (p. 489). A language with only two number categories therefore has the representations in 11.



Assuming the theory of contrastive interpretations outlined in §2, the representations in 11 predict the correct interpretations for the two number categories. That in 11b denotes any set of individuals that constitutes a group (including dual and plural sets), while that in 11a denotes any remaining set of individuals (singular sets).⁵ This group/nongroup contrast is found in 73% of the ninety-one languages surveyed by H&R (p. 497).

The asymmetry between [Group] and [Minimal] apparently cannot be reversed. Suppose instead that [Minimal] were the primary dependent. A language with a two-way number contrast would then have the following representations.



By the theory of contrastive interpretations, 12a would denote any set of individuals constituting a minimal set (including singular and dual sets), while 12b would denote any remaining set of individuals (plural sets). As noted in §1, such number systems are unattested. H&R cite no examples of this kind in their survey. I therefore conclude that [Group] is the primary dependent of the Individuation node.

Further evidence for the primary status of [Group] comes from systems with GENERAL number, which can be used for singular or plural sets. For example, in Malay, a nominal unmarked for number can be interpreted as singular or plural. Carson (2000:46) uses ellipsis to argue that this freedom of interpretation arises from a single structure with a range of meaning (vagueness), not from two structures with the same pronunciation (ambiguity): 13 can have not only the parallel number interpretations 'John saw a horse and Bill saw a horse' or 'John saw horses and Bill saw horses', but also the nonparallel interpretations 'John saw a horse and Bill saw horses' or 'John saw horses and Bill

⁵ The classification of empty sets appears to vary crosslinguistically, and even among variants of English: compare singular *No man is an island* with plural *No dogs allowed*.

saw a horse'. Given that elided material must be structurally parallel to the antecedent, it follows that the singular and plural interpretations in 13 have the same underlying structure.

- (13) John melihat kuda dan Bill juga.
 John see horse and Bill also
 'John saw a horse/horses and Bill did too.'

Carson concludes that bare nouns in Malay lack a number specification. I propose that the syntactic representation of general number is a bare Individuation node, as in 11a above. Under this view, 11a is interpreted as singular in some languages, such as English, and as general in others, such as Malay. Carson observes that Malay also has plural nouns, indicated by reduplication (e.g. *kuda-kuda* 'horses'). Corbett (2000: 15–16) also cites Even (also called Lamut) and Tagalog as having two-way number systems with plural and general number.⁶

If [Group] is the primary dependent of the Individuation node, then a system with two number categories must distinguish them by the presence or absence of the [Group] feature, as in 11. This analysis correctly predicts the interpretations of the two number categories in Malay: 11b denotes any set of individuals that constitutes a group (including dual and plural sets), while 11a denotes any remaining set of individuals (singular or general sets). The proposed analysis also correctly predicts that the system in 12 is unattested in languages with general number. In such a system, 12a would denote any minimal set of individuals (including singular and possibly dual sets), while 12b would denote any remaining set of individuals (including plural and general sets). In a system with only two number categories, however, general number contrasts with plural, not with singular or minimal (Corbett 2000:16–17). This result follows if [Group], not [Minimal], is the primary dependent of the Individuation node.

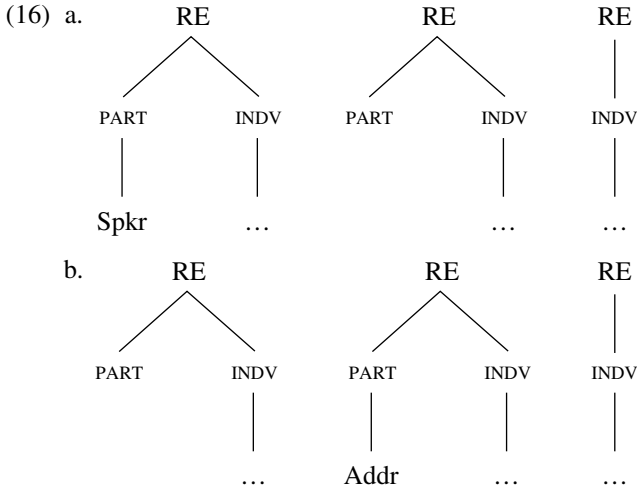
The proposed analysis further predicts that a system with a distinct singular number, as well as plural and general, will express the singular by means of the secondary dependent, [Minimal]. Such a system is predicted to have an additional number category, resulting from the combination of [Minimal] and [Group]. This prediction is confirmed in the cases discussed by Corbett (2000), with some variations suggesting a limited freedom in the interpretation of number representations. Thus, in addition to singular and general, Syrian Arabic has dual and plural (2000:13), Bayso nominals have paucal and plural (2000:11), and Fouta Jalon has plural and greater plural (2000: 11, 31). I propose that the representations of these number systems are as shown in Table 3. Their interpretation is partly free, but constrained by the featural contrasts among them.

	INDV	INDV	INDV	INDV
				/ \
		Min	Grp	Grp Min
SYRIAN ARABIC	general	singular	plural	dual
BAYSO	general	singular	plural	paucal
FOUTA JALON	general	singular	greater plural	plural

TABLE 3. Four-way number distinctions in languages with a general/singular contrast.

⁶ Such languages show that the contrastive theory of interpretations concerns intensional, not extensional, meanings. The more specified Individuation node is interpreted intensionally as plural, while the unspecified node is interpreted intensionally as general; however, general number can be used to refer extensionally to plural sets.

part categories can have either the person categories in 16a, with [Addressee] underspecified, or those in 16b, with [Speaker] underspecified.



I have argued, however, that 16b is unattested. In this context, it is crucial to distinguish syncretism from conflation. Algonquian languages famously manifest syncretism between inclusive and second person. For example, Table 4 shows independent pronouns in Ojibwa (from H&R, p. 504, citing Schwartz & Dunnigan 1986:296). The first person exclusive plural has the component *niin*, also used in the first singular; the third person component *wiin* shows up in singular and plural forms as well. Of primary interest is that the inclusive has the component *kiin*, also used in the second person singular and plural. Nevertheless, the inclusive is not conflated with second person: the distinction between them is reflected in the plural morphology. The inclusive has the same plural morphology as first exclusive, *-awint*, while second and third person have a different plural marker, *-awaa*.⁹

	SINGULAR	PLURAL
1st	<i>niin</i>	<i>niin-awint</i>
Inclusive	—	<i>kiin-awint</i>
2nd	<i>kiin</i>	<i>kiin-awaa</i>
3rd	<i>wiin</i>	<i>wiin-awaa</i>

TABLE 4. Ojibwa independent pronouns.

The same observation holds for the other languages H&R cite as evidence for variable default specification of the Participant node, including Nama (Hagman 1977:44) and Yokuts (Newman 1944:231–32), illustrated in Table 5 (H&R, p. 504). While these

	NAMA	YOKUTS
1st plural	<i>siise</i>	<i>na'an</i>
Inclusive plural	<i>saáse</i>	<i>may</i>
2nd plural	<i>saáso</i>	<i>ma'an</i>
3rd plural	<i>liiti</i>	<i>'aman</i>

TABLE 5. Plural pronouns in Nama and Yokuts.

⁹ The plural endings *-awint* and *-awaa* may in fact consist of two separate suffixes, one marking plural number (*-aw*), and the other marking either [Speaker] plural agreement (*-int*) or default person plural agreement (*-aa*). Thanks to Brian Joseph for pointing this out. Likewise, *kiin*, *niin*, and *wiin* may consist of a pronominal stem (*-iin*) with a person marker.

languages show some morphological overlap between the inclusive and second plural (*saá-* in Nama and *ma-* in Yokuts), the two are not conflated.

A language that shows extensive syncretism between inclusive and second person is Itonama, a language isolate from Bolivia (Camp & Liccardi 1965, Crevels & Muysken 2005, Cysouw 2005). Itonama pronouns and verbal person prefixes do not distinguish between inclusive and second person, as shown in Table 6 (based on Camp & Liccardi 1965:254, 331–32).

	PRONOUNS		PERSON AGREEMENT	
	SINGULAR	PLURAL	SINGULAR	PLURAL
1st masc	<u>os-ni</u>	sih-ni-ʔ-ke	si-	seʔ-
1st fem	<u>os-ni-ʔka</u>			
Inclusive	—	dih-ni-ʔ-ke	—	deʔ-
2nd masc	<u>oʔ-ni</u>		eʔ-	
2nd fem	<u>koʔ-ni</u>	oh-ni-tʰe-ʔ-ke	<u>keʔ-</u>	ah-
3rd masc	<u>oh-ni</u>		pi-	
3rd fem	pi-ni			

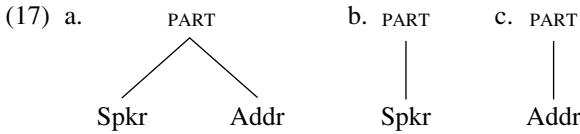
TABLE 6. Itonama pronouns and verbal person prefixes.

However, it turns out that other aspects of the grammar do distinguish inclusive from second person. For example, Camp and Liccardi (1965:256) report that the object agreement suffix on transitive verbs is *-mo* for first person singular and plural, with no inclusive/exclusive distinction, and *-be* for second person singular and plural. Moreover, an aspectual suffix that attaches to verbs shows agreement that distinguishes second person from inclusive (1965:368–71). In an affirmative clause with a Class II verb and a third person object, continuous aspect is marked as *-tʰe* if the subject is either first person (inclusive/exclusive) or third person, and as *-tʰa* if the subject is second person. In a negative clause with a Class II verb and a third person subject, ‘multiple’ aspect is marked as *-tʰa* if the object is either first person (inclusive/exclusive) or third person, and as *-tʰo* if the object is second person. Although these contrasts have a somewhat restricted distribution, they show that Itonama does not conflate inclusive with second person.¹⁰

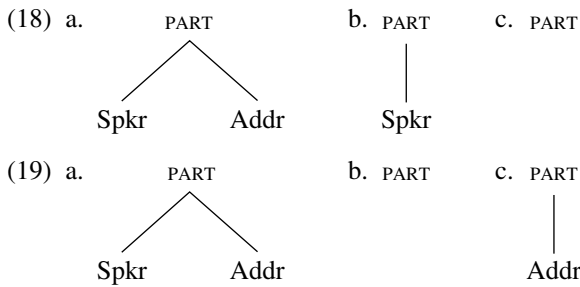
Following H&R, I assume that the inclusive category has both [Speaker] and [Addressee] features, as in 17a. If [Speaker] is the primary dependent of the Participant node, then it must appear on a first person category, as in 17b. I assume that languages with an inclusive category always have [Addressee] in the second person as well, as in 17c.¹¹ The morphological syncretisms between inclusive and second person can be attributed to this shared [Addressee] feature. Thus, these syncretisms do not provide evidence that the primary dependent of the Participant node varies in languages without an inclusive category.

¹⁰ A more challenging case is Sanuma, a Yanomami language from Venezuela and Brazil (Borgman 1990, Cysouw 2005). According to Borgman’s (1990:149) description, there is a total syncretism between second person and inclusive pronouns; moreover, the verb does not show person agreement (1990:197). I propose that Sanuma, like Itonama, has syncretic surface forms, but maintains an underlying distinction between inclusive and second person pronouns. The extreme rarity of such cases may arise from the difficulty of activating the [Addressee] feature in the absence of a three-way surface contrast among Participant categories.

¹¹ H&R argue that such systems sometimes also include a bare Participant node. Cowper and Hall (2004) note that this option should always be available. This prediction may be correct: for example, proximate third person bears a strong morphosyntactic resemblance to first and second person in a number of Algonquian languages and may be represented with a bare Participant node.



Nevertheless, H&R argue for feature-geometric variation in languages with an inclusive category. They appear to be arguing that most such languages would have the Participant categories in 18, but that as a marked alternative, some languages would have the categories in 19. Under this approach, either the first person or the second person category has a bare Participant node—normally second person, as in 18c, but in marked cases, first person, as in 19b.¹² In 18, [Speaker] is the primary dependent of the Participant node, as proposed here, though [Addressee] is also activated for contrast in 18a; but in 19, [Addressee] is the primary dependent of Participant. Thus, 19 is incompatible with the view that the primary/secondary distinction is invariant.



According to H&R, their analysis predicts [Addressee] syncretism to be rare (p. 504). This would follow if syncretism is permitted only by the shared [Addressee] feature of the marked alternative in 19. By contrast, the unmarked system in 18 would easily give rise to [Speaker] syncretism between inclusive and first person.

There is an immediate empirical problem with the view that languages with an inclusive category have either the system in 18 or the system in 19. Under this approach, no language should allow both [Addressee] syncretism and [Speaker] syncretism. However, both are observed in a number of Algonquian languages. For example, we have already seen that inclusive and second person pronouns in Ojibwa share the morphological component *kiin*, showing [Addressee] syncretism. But inclusive also shares with the first person the component *-awint*, showing [Speaker] syncretism. The analysis in 17 appears to be necessary to capture such ‘double’ syncretisms.

A referee points out that 17 does not predict that syncretism between inclusive and second person is rare, as has been claimed in the literature (H&R, p. 504, Noyer 1992, Déchaine 1999). However, the empirical grounds for the claim are unclear. As we have seen, languages without an inclusive category conflate the inclusive with first person, not with second. It has been argued here that the [Addressee] feature is missing altogether in such languages; this correctly predicts the absence of [Addressee] syncretisms. The data relevant to 17 involve syncretism in languages with an inclusive category, where (by hypothesis) both [Speaker] and [Addressee] are present. Among such lan-

¹² Cowper and Hall (2004) take a similar approach, suggesting that some languages with an inclusive category lack the [Speaker] feature entirely, while others lack the [Addressee] feature entirely. Under their approach, the inclusive has two Participant nodes, only one of which has a [Speaker] or [Addressee] feature specification.

guages, [Addressee] syncretism does not seem to be particularly rare.¹³ Such syncretism may be underreported because of a tendency to regard pronouns as monomorphemic. For example, although H&R (p. 503, citing Boas 1911:529) give an analysis of Kwakwala pronouns, they do not cite Kwakwala as a language with [Addressee] syncretism. Nevertheless, only inclusive and second person have the final *-s* in the Kwakwala pronouns *-En(L)* ‘I’, *-Enu^εx^u* ‘we (excl)’, *-ENS* ‘we (incl)’, *-ES* ‘you (sg/pl)’. Similarly, Noyer (1992:182, citing McKay 1978) does not treat inclusive and second person plural pronouns in Rembarnga as syncretic, though they appear to share a stem *-akorr*: compare *yarr-ə* ‘we (excl)’, *ηakorr-ə* ‘we (incl)’, *nakorr-ə* ‘you (pl)’, and *parr-ə* ‘they’. Further study is needed to determine what kinds of syncretism arise in languages with an inclusive category. The analysis presented here predicts that there will be no significant asymmetry between [Speaker] syncretism and [Addressee] syncretism in such languages.

4.2. SYNTACTIC INVERSION. Another argument H&R present for overriding the default Participant specification is based on transitive clauses in Algonquian. In such clauses, the voice suffixes can vary depending on the person category of the logical subject and object. This is illustrated in 20 with examples from Ojibwa.¹⁴ Example 20a has a second person logical subject and a third person logical object, while in 20b these person categories are reversed. Though the person and number marking is identical, 20a has the DIRECT suffix *-a:*, while 20b has the INVERSE suffix *-igw*.¹⁵

- | | |
|------------------------|-----------------------|
| (20) a. G-bi:n-a:-wa:. | b. G-bi:n-igw-(i)wa:. |
| 2-bring-DIR-PL | 2-bring-INV-PL |
| ‘You (pl) bring him.’ | ‘He brings you (pl).’ |

H&R claim that the inclusive pronoun triggers the same voice morphology as the second person, rather than the same voice morphology as the first (p. 505): as the logical subject, it is associated with the direct form of the verb (21a), while as the object it is associated with the inverse form (21b).

- | | |
|--------------------------|-------------------------|
| (21) a. G-bi:n-a:-na:ni. | b. G-bi:n-igw-(i)na:ni. |
| 2-bring-DIR-1PL | 2-bring-INV-1PL |
| ‘We (incl) bring him.’ | ‘He brings us (incl).’ |

This description is somewhat unclear. In fact, the first person triggers the same voice morphology as the second person and the inclusive: it is associated with the direct form as a logical subject (22a), and with the inverse as a logical object (22b).

- | | |
|--------------------------|-------------------------|
| (22) a. N-bi:n-a:-na:ni. | b. N-bi:n-igw-(i)na:ni. |
| 1-bring-DIR-1PL | 1-bring-INV-1PL |
| ‘We (excl) bring him.’ | ‘He brings us (excl).’ |

¹³ In fact, Cysouw (2005) argues that inclusive pronouns actually syncretize MORE often with second person than with first. Under the theory proposed here, this asymmetry is accidental, and should disappear if both pronoun and agreement syncretisms are considered.

¹⁴ All Ojibwa examples are underlying representations from Rhodes 1976:85–86. Abbreviations are as follows: DIR: direct, INV: inverse, PL: plural; see also n. 16.

¹⁵ Bruening (2001) argues that inverse morphology is associated with syntactic movement in Passamaquoddy, an Algonquian language. In clauses with two third person arguments, one must be obviative and the other proximate. Bruening shows that in inverse clauses of this type, the proximate logical object moves to an A-position c-commanding the obviative logical subject.

Verbal prefixes in direct and inverse clauses have also been used to argue that second person is more marked than first in Algonquian languages.¹⁹ As we have seen, transitive clauses with one third person argument and one Participant argument always have the Participant prefix (in Ojibwa, *g-* or *n-*), whether the Participant is the logical subject (direct form) or the logical object (inverse form). Thus the prefix has been assumed to diagnose the relative markedness of arguments (Jolley 1983)—here, it would be the more marked, or featurally specified, argument. Under this view, the direct suffix is used if the more specified argument is the logical subject, and the inverse suffix if it is the logical object. Since participant-only clauses always have the [Addressee] prefix *g-*, it would then follow that second person is more specified than first, as the system in 19 predicts. Hence, *-i* is treated as the direct suffix (26a), while *-ini* is treated as the inverse suffix (26b).

- (26) a. G-bi:n-i-min. b. G-bi:n-ini-min.
 2-bring-DIR-1PL 2-bring-INV-1PL
 ‘You bring us (excl).’ ‘We (excl) bring you.’

However, it is by no means necessary to assume that the prefix is the more specified argument. Under an alternative approach, the verbal prefix combines the features of any Participant arguments (Halle & Marantz 1993, McGinnis 1995).²⁰ Evidence for this view comes from a suffix position that indicates the plurality of any Participant argument, whether subject or object. In 27a, this position shows agreement with the plural second person argument, which also surfaces as the prefix *g-*. In 27b, the number-marking position shows agreement with the first person argument, which does not surface as the prefix. The fact that the number-marking suffix position can reflect the plurality of either argument is predicted if this position agrees with a prefix that comprises the features of all Participant arguments. There is no *prima facie* reason to reject such an analysis of the prefix, since a parallel analysis is independently necessary for the plural suffix.

- (27) a. G-bi:n-i-mw. b. G-bi:n-i-min.
 2-bring-2LS-PL 2-bring-2LS-1PL
 ‘You (pl) bring me.’ ‘You (sg/pl) bring us (excl).’

Like inclusive forms, these participant-only transitive clauses show both [Speaker]-agreement and [Addressee]-agreement. However, first and second person plural agreement cannot cooccur, as shown in 28a. This complementarity can be captured under the view that the two suffixes occupy the same morphosyntactic position (Halle & Marantz 1993, McGinnis 1995). [Speaker] plural agreement appears whenever either the subject or the object is inclusive or first plural. Thus, 27b is ambiguous between singular and plural second person. Likewise, first person and [Addressee] prefixes cannot cooccur (28b). In the case of the prefixes, however, it is the [Addressee] prefix that appears whenever either the subject or the object is inclusive or second person.

- (28) a. *G-bi:n-i-mw-min. b. *N-g-bi:n-i-min.
 2-bring-2LS-PL-1PL 1-2-bring-2LS-1PL
 ‘You (pl) bring us (excl).’ ‘You (sg/pl) bring us (excl).’

¹⁹ Halle and Marantz (1993) give evidence from Potawatomi that the ‘prefix’ is actually a proclitic, since it can be separated from the verb stem by an adverbial element.

²⁰ In some Algonquian languages, proximate third person arguments act like Participant arguments in the context of a clausemate obviative argument. See n. 11.

This observation—that the [Addressee] form is used for the prefix in the presence of first and second person arguments, while the [Speaker] form is used for the plural suffix in the presence of plural first and second person arguments—again supports the view that [Speaker] and [Addressee] are equally specified in Algonquian. Under this approach, there is no reason to treat *-i* as the direct suffix and *-ini* as the inverse suffix: it is equally possible that *-ini* is direct and *-i* inverse, or that participant-only clauses never involve inversion. Indeed, the claim that participant-only clauses are subject to inversion is not universally accepted among Algonquianists (Hockett 1966, 1992, Goddard 1967:68).

The only remaining argument that the prefix corresponds to the more specified argument is that the grammatical relation of the argument indicated by the prefix correlates with inverse marking. If the logical object of an inverse clause is more specified than the logical subject, and if *-ini* (1LS) forms in Ojibwa are inverse, then second person is more specified than first. However, in most Algonquian languages, it is impossible to tell whether the 1LS forms are inverse or not; and in the only case where ordinary inverse morphology is used in the participant-only forms, it is used when the logical object is first person, not second (Déchaine 1999, citing Frantz 1991). In Blackfoot, as in Ojibwa, the second person prefix (*kits-*) is used if either argument in a transitive participant-only clause is second person, as in 29a,b. Here, however, the verb carries the ordinary inverse morphology if the logical object is first person (29b). The same morphology is also used if the logical subject is third person, as in 29c, where the first person prefix (*nits-*) appears.

- (29) a. Kits-ikákomimm-o. b. Kits-ikákomimm-oki.
 2-love-1LS 2-love-INV
 ‘I love you (sg).’ ‘You (sg) love me.’
 c. Nits-ikákomimm-oki.
 1-love-INV
 ‘He/she loves me.’

If inverse morphology indicates that the logical object is the more specified argument, then Blackfoot shows that the choice of prefix has nothing to do with markedness: the prefix can be either the less specified argument, as in 29a,b, or the more specified argument, as in 29c. But if inverse morphology does not necessarily indicate that the logical object is the more specified argument, then it cannot provide independent evidence for the relative featural specification of different person categories.

Thus, inversion provides no evidence that [Addressee] is the primary dependent of the Participant node. The preference for an [Addressee] prefix in participant-only clauses also provides no evidence for this conclusion, since, as we have seen, some Algonquian languages show a simultaneous preference for a plural [Speaker] suffix in participant-only clauses.

4.3. IMPERATIVES. H&R (p. 505) cite an additional argument from Déchaine (1999) that ‘the inclusive forms for Ojibwa . . . should be analyzed as second person’, noting that some Algonquian languages have an immediate imperative form for the inclusive. The examples in Table 7 are from Ojibwa (Nichols 1980:332) and Plains Cree (Ahena-kew 1987:49).

	OJIBWA	PLAINS CREE
2nd singular	Niimi-n!	Nipá!
2nd plural	Niimi-k(k)!	Nipá-k!
Inclusive	Niimi-taa!	Nipá-tân!
	‘Dance (now)!’	‘Sleep (now)!’

TABLE 7. Immediate imperatives in two Algonquian languages.

H&R propose that inclusive imperatives are possible only because the inclusive is second person in Ojibwa and Plains Cree. Assuming that imperative morphosyntax is dependent on the presence of an [Addressee] feature, they conclude that this feature occurs in both inclusive and second person.

Before proceeding, we should briefly distinguish between the semantics and the morphosyntax of imperatives. ‘Imperatives’ with subjects of different person categories may not have the same semantics, even if they have the same morphosyntactic structure.²¹ Accordingly, I refer to first person ‘imperatives’ as HORTATIVE, and third person ‘imperatives’ as JUSSIVE.²² It seems reasonable to suppose that the inclusive ‘imperative’ in Ojibwa and Plains Cree is semantically comparable to the English hortative, as in *Let’s dance*. Under this view, H&R’s assumption would be stated as follows: the imperative and the hortative can have the same morphosyntactic structure only when the inclusive is second person. In English, the inclusive is conflated with first person; as predicted, English imperative morphosyntax (*Dance!*) differs from hortative morphosyntax (*Let’s dance!*). By contrast, Ojibwa and Plains Cree imperative and hortative morphosyntax are the same. Thus in these languages, H&R’s proposal predicts that the inclusive is (in some important sense) second person.

In fact, however, this proposal is not supported by crosslinguistic evidence. For example, in Hungarian the same morphosyntactic structure is used for imperatives and hortatives—as well as for jussives (van der Auwera et al. 2004). The relevant affirmative forms of the verb *vár* ‘wait’ are given in Table 8.

	SINGULAR	PLURAL
Hortative	—	várjunk
Imperative	várj(ál)	várjatok
Jussive	várjon	várjanak

TABLE 8. Selected affirmative forms of Hungarian *vár* ‘wait’.

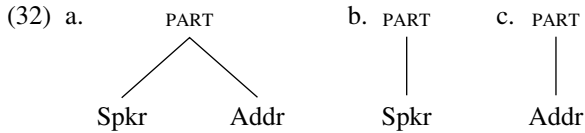
Nevertheless, in Hungarian, the inclusive is conflated with first person, not with second. First plural pronouns (*mi* ‘we’, *mienk* ‘ours’) and agreement can be used with an inclusive or exclusive meaning, just as in English. Evidently, the imperative and the hortative can have the same morphosyntax even when the inclusive is first person. The same is true for Finnish (Mäkäräinen 2001 and Liina Pylkkänen, p.c.).

In Hungarian and Finnish, ‘imperative’ morphosyntax is clearly not dependent on the presence of an [Addressee] feature. However, H&R’s proposal may still be correct for languages that do not use imperative morphosyntax for jussives. For example, Ojibwa and Plains Cree apparently do not use the imperative/hortative morphosyntax for jussives. The same is true in English, where *Eat cake!* can only be interpreted as having a second person subject; a jussive would be something like *Let them eat cake*. Possibly, then, the generalization could be this: in languages that do not use imperative morphosyntax for jussives, the imperative and the hortative can have the same morphosyntactic structure only if the inclusive is second person. But evidence against this modified proposal can be seen in a number of languages. For example, French uses the same morphosyntax for imperatives and hortatives, as illustrated in Table 9 for the

²¹ Thanks to Donna Gerdts, Elizabeth Ritter, and Brian Joseph for pointing this out.

²² Actually, the semantic difference between imperative, hortative, and jussive does not correspond perfectly to the morphosyntactic person of the subject. For example, the subject of the imperative *Everyone leave!* is semantically second person, but morphosyntactically third person. This utterance conveys a direct command to a set of addressees, in contrast with the indirect command conveyed by the jussive *Let everyone leave*. Thanks to Edwin Williams for this example.

Despite initial appearances, these conclusions are not challenged by languages with surface syncretisms between second person and inclusive, such as Algonquian languages. Phenomena such as morphological syncretism, inversion, and imperatives show no underlying asymmetry between first and second person in such languages. The inclusive category can syncretize with second person in some affix positions and with first person in others. All Participant categories trigger the same direct/inverse morphology in combination with a third person argument, and a verb taking an inclusive argument (subject or object) cannot take another argument that is either first or a second person. Moreover, inclusive imperatives are not limited to languages with syncretism between inclusive and second person. The facts observed are most consistent with the Participant representations in 32, where the inclusive category (32a) shares a [Speaker] feature with first person (32b), and an [Addressee] feature with second person (32c).



The proposed analysis departs somewhat from the usual assumptions about feature-geometric dependency relations. If the presence of a feature F_1 implies the presence of a feature F_2 in a given language, it is generally concluded that F_1 is a dependent of F_2 in the feature geometry. However, this would also entail that F_1 implies F_2 in a given representation, which does not appear to be the case here. I have argued that, within a given language, [Minimal] implies [Group] and [Addressee] implies [Speaker]; I have not, however, suggested that these implicational relations hold within individual representations. Especially pertinent in this context are the double syncretisms mentioned above, between inclusive and first person in one position, and between inclusive and second person in another. Such cases strongly suggest that [Speaker] and [Addressee] occur together (in 32a) and also separately (in 32b and 32c). These observations support the theory of primary and secondary dependencies sketched above, which captures the crosslinguistic implicature without entailing a language-internal implicature. This theory provides a promising basis for further explorations of morphological and phonological dependency relations.

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