

# MARKING THE UNMARKED: EXCEPTIONAL PATTERNS OF SYNCRETISM IN ENGLISH AND HINDI\*

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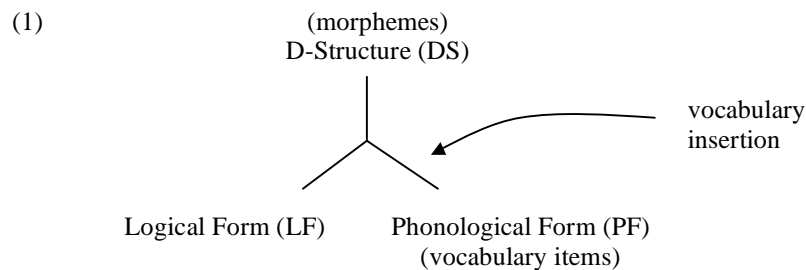
## 1. Introduction

This paper addresses a particular approach to morphosyntactic feature geometry represented in works such as Harley & Ritter (2002), Cowper (2005) and Béjar & Hall (1999). In this approach, the ‘least marked’ feature in a morphosyntactic dimension (e.g., person, number, case, etc.) is equated with the ‘least specified’ feature structure. As a result, unmarked features are always underspecified in relation to marked features and lack unique feature representations.

In response to this I argue that the least marked feature is not necessarily the least specified in every instance, and that languages must have the option of uniquely specifying unmarked features. The unique specification of unmarked features is what I call ‘marking the unmarked’. I sketch an alternative approach to morphosyntactic feature geometry that makes this option available. The proposed analysis is motivated by exceptional patterns of syncretism in which unmarked features behave as though they are uniquely specified. For the purpose of this paper I focus on examples from English and Hindi.

## 2. Theoretical Background: Distributed Morphology

The theoretical background for this discussion is the framework of Distributed Morphology (Halle & Marantz 1993, Halle 1997, Harley & Noyer 2003). Distributed Morphology draws a distinction between morphemes and vocabulary items. The syntactic component manipulates abstract morphemes consisting of morphosyntactic features, but lacking phonological content. By contrast, vocabulary items are specified for both morphosyntactic features and phonological content. They are inserted after syntax to provide a phonological spell-out of morphemes at PF.



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Vocabulary insertion operates according to the Subset principle. A vocabulary item is inserted to spell out a morpheme if it matches all or a subset of the features on the morpheme. If more than one vocabulary item qualifies for insertion then the most specific item is selected (i.e., the item with the maximal subset of features).

In this framework, morphological syncretism is the product of underspecification.<sup>1</sup> An underspecified feature representation may constitute a subset of more than one fully specified representation. As a result, an underspecified vocabulary item is capable of spelling out multiple distinct morphemes as long as there are no specific vocabulary items to take its place. The less specified a vocabulary item is, the more morphemes it will be able to spell out, and the wider its distribution will be. Thus, within this framework, the vocabulary item with the widest distribution in a morphological paradigm (i.e., the ‘elsewhere’ form) should be the least specified item.

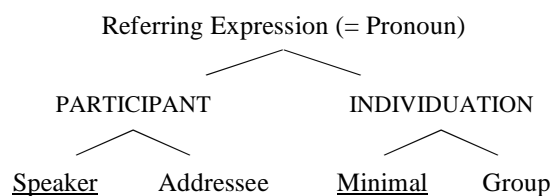
### 3. Markedness in Morphosyntactic Feature Geometries

Some models of morphosyntactic feature geometry equate unmarked features with the least specified feature structures. This approach can be seen in Harley & Ritter’s (2002) treatment of third person, Cowper’s (2005) treatment of singular number, and Béjar & Hall’s (1999) treatment of nominative case.

#### 3.1 Harley & Ritter (2002)

Harley & Ritter (2002) propose the geometry in (2) to account for person and number in pronouns.<sup>2</sup> In this geometry, PARTICIPANT represents person and INDIVIDUATION represents number. Default features are underlined.

(2) Harley & Ritter’s (2002) geometry of person and number



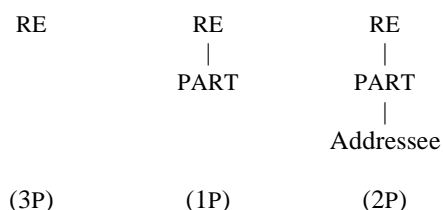
In Harley & Ritter’s geometry, there are only two person features: [Speaker] for first person and [Addressee] for second person. There is no feature representing third person because third person is taken to be the very absence of

<sup>1</sup> Some instances of syncretism are also attributed to impoverishment (e.g., Halle 1997, Noyer 1998). However, impoverishment cannot account for the exceptional patterns of syncretism that are the subject of this paper. Thus, I ignore it here.

<sup>2</sup> Harley & Ritter’s (2002) geometry also includes a CLASS node to represent gender, and the feature [Augmented] (as a dependent of [Minimal]) to represent paucal number. I omit these details here because they are not relevant to the current discussion.

person features. Thus, Harley & Ritter represent a typical three-way person contrast as in (3).

- (3) 3-way person contrast based on Harley & Ritter (2002)

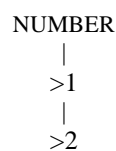


Since third person is taken to be the unmarked (or least marked) person feature, it is represented by the least specified feature structure. It arises only as the default interpretation of a bare root node. Since everything else has a root node at the very least, the representation of third person is never unique. Third person is always underspecified in relation to other person features, and its representation always forms a subset of the other feature representations.

### 3.2 Cowper (2005)

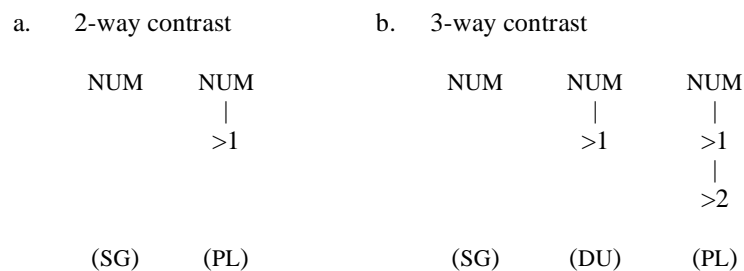
Cowper (2005) takes essentially the same approach to number features. She proposes the number geometry in (4).

- (4) Cowper's (2005) geometry of number



In this geometry, the interpretation of a given feature is relative to the system of contrast in which it participates. For example, in a 2-way system of contrast the feature [ $>1$ ] receives a plural interpretation (5a), but in a 3-way system it receives a dual interpretation (5b).

- (5) Systems of number contrast according to Cowper (2005)

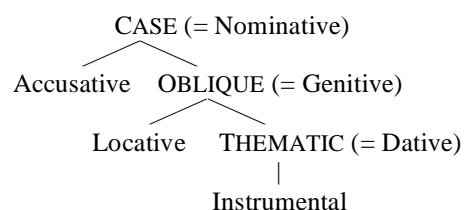


Regardless of the system of contrast, singular number is always the default interpretation of a bare NUMBER node. It is the unmarked number feature. As such, it lacks a unique feature representation and it is always underspecified in relation to other number features.

### 3.3 Béjar & Hall (1999)

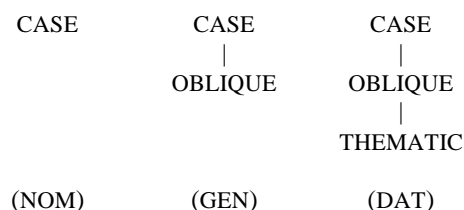
Béjar & Hall (1999) adopt a similar approach to case features. They assume the case geometry in (6), where values in parentheses represent default interpretations of underspecified nodes.

(6) The case geometry of Béjar & Hall (1999)



In this geometry, nominative is the unmarked (or least marked) case and it serves as the default interpretation of a bare CASE node. For example, a 3-way contrast between nominative, genitive and dative would be represented as in (7).

(7) 3-way case contrast based on Béjar & Hall (1999)



Once again, the unmarked feature is equated with the least specified feature structure. Nominative case lacks a unique feature representation and is always underspecified in relation to other case features.

## 4. An Unsustainable Prediction

Within the framework of Distributed Morphology, this approach to unmarked features entails an important prediction concerning morphological syncretism. If unmarked features are always the least specified and, at the same time, the 'elsewhere' item in a morphological paradigm must be the least specified in order to have the widest possible distribution, then the 'elsewhere' item should always be equivalent to the item that spells out unmarked features.

This prediction is not strictly sustainable. It is true only as a generalization, not as an absolute universal. In some languages we find exceptional patterns of syncretism in which the syncretic ‘elsewhere’ item does *not* spell out unmarked features. In such cases, the item that does spell out unmarked features is precisely the one (sometimes the only one) that does not participate in syncretism of any kind.

## 5. Exceptional Patterns of Syncretism

### 5.1 English (& Orokaiva)

English present tense verbs represent one of the clearest counter-examples to the prediction that the ‘elsewhere’ item always spells out unmarked features. Consider the paradigm in (8).

(8) English present tense verbs

	3P	2P	1P
SG	walk-s	walk	walk
PL	walk	walk	walk

In this example, *walk* is the syncretic ‘elsewhere’ item. The model predicts that it must be underspecified for person and number in order to have the distribution that it does. However, the model of feature geometry that we are exploring also predicts that *walk-s* must be underspecified because it spells out unmarked features, 3P and SG. Both items cannot be underspecified. If they were then they would not be distinguishable and would not have distinct distributions.

The pattern of syncretism in English present tense verbs is extremely rare but not necessarily unique to English. Orokaiva, a language of New Guinea, displays a similar pattern in its far past indicative paradigm (9).

(9) Orokaiva far past indicative of *hembu* ‘walk’  
(Baerman et. al. 2005: 26; Healey et. al. 1969: 40, 59, 62)

	3P	2P	1P
SG	hembu-n-a	hembu-a	hembu-a
PL	hembu-a	hembu-w-a	hembu-a

In Orokaiva, the suffix */-a/* marks indicative mood, while */-w/* marks second person plural and */-n/* marks third person singular. As in English, the syncretic ‘elsewhere’ item, which lacks a distinctive person/number suffix (or has a null suffix), fails to spell out the unmarked features, 3P and SG.

### 5.2 Hindi

Another exceptional pattern of syncretism is found in Hindi. In this example the syncretism involves number and case features.

## (10) Hindi masculine (class II) noun stems

	NOM	OBL	
SG	laḍk- <b>aa</b>	laḍk-e	'boy'
PL	laḍk-e	laḍk- <b>ō</b>	

The pattern displayed in (10) has been called diagonal syncretism (e.g., Béjar & Hall 1999) or polarity effects (e.g., Baerman et. al. 2005). In this pattern, the syncretic item spells out complementary sets of features. Thus, the affix /-e/ in (10) spells out NOM PL on the one hand and OBL SG on the other. In order to have this kind of distribution we must assume that /-e/ is a default masculine suffix and that it is underspecified for number and case. But the model predicts that /-aa/ must be underspecified because it spells out unmarked features, NOM and SG. Again, the underspecified 'elsewhere' item does not spell out unmarked features.

Compare the masculine nouns in (10) with the masculine adjectives in (11). In this paradigm the distinct OBL PL suffix, /-ō/, is not available. In its absence /-e/ spells out OBL PL morphemes. This is further evidence that /-e/ is an underspecified 'elsewhere' item. Once again, however, it does not spell out unmarked features. In Hindi, the /-aa/ suffix is always uniquely NOM and SG.

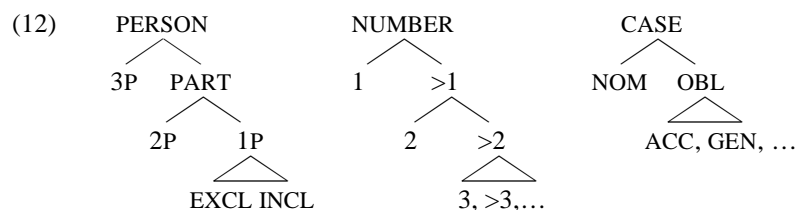
## (11) Hindi masculine adjectives

	NOM	OBL	
SG	baḍ- <b>aa</b>	baḍ-e	'big'
PL	baḍ-e	baḍ-e	

In each of the examples examined here, the 'elsewhere' item does not spell out unmarked features, and the item that does spell out unmarked features appears to be uniquely specified for those features. Within a model where unmarked features lack unique representations and are always underspecified this should be impossible. Thus, the model we are exploring cannot account for these exceptional patterns of syncretism.

## 6. Proposed Analysis: Marking the Unmarked

What would a model of feature geometry need to look like in order to allow for the unique specification of unmarked features, without losing the generalization that unmarked features have a default status and tend to be underspecified? I propose the model in (12).

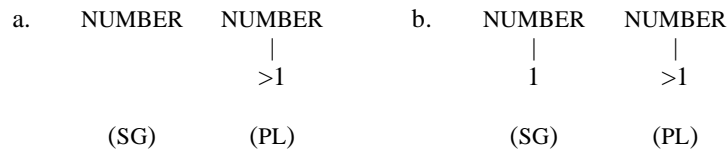


In the proposed geometry, each dimension consists of a series of binary branching nodes. Each branching node represents a degree of markedness, and each has a marked and unmarked dependent.<sup>3</sup> Unmarked features can be defined structurally as the ‘lightest’ or ‘least complex’ dependent of a branching node; i.e., the dependent without any (potential) further dependents in the geometry. Marked features are those that branch; i.e., those that have (potential) further dependents. By this definition, 3P is the least marked person feature, SG the least marked number, and NOM the least marked case.

If we assume that unmarked features have a default status, but marked features do not, then contrast will always be established by specifying marked features. For example, a simple 2-way number contrast would be established by specifying [ $>1$ ]. In contrast with [ $>1$ ], an underspecified number node will be interpreted in terms of its unmarked default dependent, in this case [1]. In the absence of contrast the interpretation of a branching node includes the interpretation of all further dependents. Thus, the interpretation of [ $>1$ ] would include [2] and [ $>2$ ] so long as these are not contrastive.

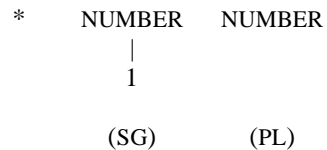
Since unmarked features have a default status they are redundant for the purpose of contrast. As a result, we expect them to be underspecified in most cases. However, their availability within the geometry means that languages can activate them, at least redundantly, in addition to marked features. Thus, the proposed geometry predicts two well-formed systems of contrast: those that activate only marked features (13a), and those that activate both marked and unmarked features (13b).

(13) Two well-formed systems of contrast



Marked features cannot serve as defaults. Thus, the system of contrast in (14), which makes exclusive use of unmarked features, is an ill-formed system.

(14) An ill-formed system of contrast

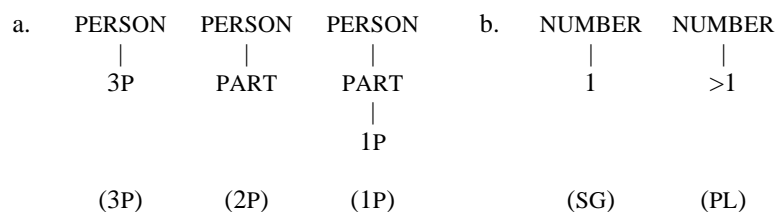



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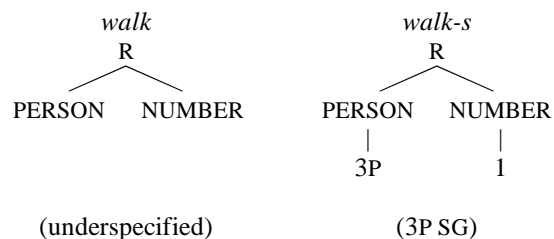
<sup>3</sup> The two dependents of a branching node represent antagonistic oppositions. Thus, I assume a non-branching constraint on representations so that a given item cannot be specified for both dependents simultaneously (cf. Avery & Idsardi 2001). This is a departure from Harley & Ritter’s (2002) model in which the joint specification of two dependents yields a unique interpretation (e.g., [Minimal] and [Group] together yield a dual interpretation).

While (14) is ill-formed as a system of contrast among morphemes at DS, it is a perfectly acceptable pattern of (under)specification among vocabulary items within a system of contrast like that in (13b), where both marked and unmarked features are active. Thus, if English has a system of contrast that makes use of both marked and unmarked features, as in (15), then English vocabulary items could have representations like those in (16).<sup>4</sup>

(15) Underlying contrasts available in English morphemes

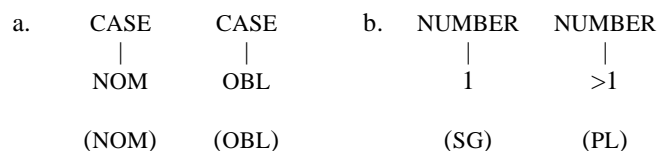


(16) English vocabulary items (present tense verbs)



Similarly, if Hindi has a system of contrast that includes both marked and unmarked features, as in (17), then Hindi vocabulary items could have the representations in (18).

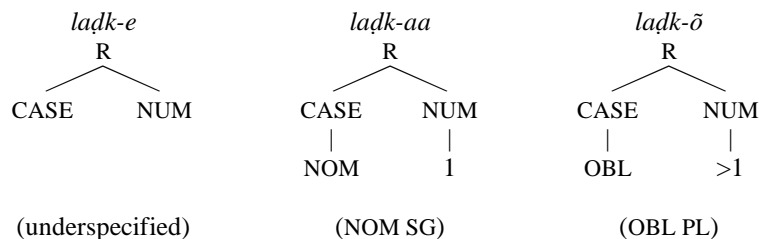
(17) Underlying contrasts available in Hindi morphemes



<sup>4</sup> In this paper I am concerned with markedness relationships that hold within morphosyntactic dimensions, and not with those that hold between dimensions. Thus, for the sake of simplicity I represent the dimensions as sisters of a common root node. The relationship between dimensions may be more complex, but nothing critical hinges on this simplification. Also, I attach no special significance to the dimension node in the representation of an underspecified vocabulary item. These nodes might be absent altogether.



(18) Hindi vocabulary items (masculine class II noun stems)



In this analysis unmarked features are uniquely specified. Thus, the analysis correctly predicts that the underspecified ‘elsewhere’ item will not spell out unmarked features.

In the case of Hindi adjectives, where the oblique plural suffix /-ō/ is not available (11), the analysis correctly predicts that /-e/ will spell out oblique plural morphemes, not /-aa/. This is because /-e/ is the underspecified vocabulary item while /-aa/ is uniquely nominative and singular.

## 7. A New Prediction

The proposed analysis entails a new prediction concerning syncretism: a vocabulary item that is uniquely specified for unmarked features should not participate in syncretism. This is because unmarked features have no dependents in the geometry. Therefore, the unique representation of an unmarked feature will not constitute a subset of any other representation. This prediction is empirically verifiable and consistent with all of the examples examined here.

## 8. Conclusion

In this paper I have argued that morphosyntactically unmarked features must have representations that are distinct from underspecified representations, and that languages must have the option of uniquely specifying such features even if doing so entails some redundancy. The unique specification of unmarked features is what I call ‘marking the unmarked’. I have briefly outlined how a model of feature geometry might accommodate this option.

The proposed model represents a minimal retreat from the restrictiveness of other models by drawing a distinction between unmarked features and underspecified representations, while at the same time preserving markedness and dependency relationships among features. The most parsimonious use of the geometry is one that makes exclusive use of marked features. Thus the analysis preserves the generalization that unmarked features will tend to be underspecified and will behave accordingly with respect to syncretism. What is important is that unmarked features can have unique representations and that underspecification of unmarked features is not forced by the geometry. This provision is necessary to account for exceptional patterns of syncretism in languages like English and Hindi, where unmarked features behave as though they are uniquely specified.

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