Privativity and Number Features: The View from Telugu

Looking at hierarchy effects in assumed identity contexts in Telugu, I argue that probes should be able to search for negative values of a feature, and that universally, ϕ-features are bivalent.

Background: An influential idea about ϕ-feature structure in morphosyntax is that features are privative, and geometrically organised (Harley & Ritter 2002). Arguments for privativity come from parsimony and non-existence: If the patterns found in natural languages can be explained only using privative features, then binary features should be dis-preferred. Within the syntactic module, Preminger (2017) claims that since there are no patterns that necessarily refer to negative feature values, we must eschew binarity of ϕ-features. Here, I show that hierarchy effects in assumed identity contexts in Telugu provide evidence for binary features.

Empirical Background: In assumed identity contexts like in (1), the NUMBER feature on the predicate of a binominal small clause is argued to be intrinsically valued (Béjar et al. 2019). Depending on the features of the two nominals involved, assumed identity statements in Telugu (Dravidian) are unacceptable in some combinations, but acceptable in others (2) — specifically, plural subjects with singular predicates are always ineffable in binominal copular constructions. Here, I provide an explanation for this ineffability in terms of gluttony: articulated probes in the syntax agree with multiple deficient goals, which sometimes leads to conflicting requirements on vocabulary insertion (Coon & Keine 2020).

(1) The banana is the {eyebrow/eyebrows} *Context: Fruit plate arranged like a face*

(2) *Context: Actors discussing their roles in a play*

a. nenu picci-vaaḷḷa-**nu**
1SG mad-3PL-**1SG**
'I am the mad people' 1SG > 1PL

b. * memu picci-vaaḍi-(mi)
1PL mad-3MS-(1PL)
'We are the mad-person' 1PL > 1SG

Telugu Copular Clauses: Telugu copular clauses with predicate adjectives need a nominal to host the adjective (3). This nominal co-varies with the subject in number and gender, and is phonologically identical to a 3rd person pronoun (4). In addition to this co-varying host, an agreement marker is found adjacent to it, which co-varies with the subject in person and number (2a,6). This agreement marker is not the usual verbal agreement; the latter shows up in non simple present tenses (5).

(3) vaaḍu picci-vaaḍu
3MS mad-3MS
'He is mad/a mad man'

(4) Form of the pronominal host:

	[#:SG]	[#:PL]
[Γ:M]	-vaaḍu	-vaa{ḷḷu/ru}
[Γ:F]	-aame	-vaa{ḷḷu/ru}
[Γ:N]	-di	-vi

(5) nenu picci-vaaḍi-**ni** avu-taa-**nu**
1S mad-3MS-**1S** be-FUT-**1S**
'I will become mad/a mad man'

(6) Copular agreement paradigm:

	[#:SG]	[#:PL]
[π:1]	-ni	-mu
[π:2]	-vu	∅
[π:3]	∅	∅

The Problem: Of the six possible person-number combinations of nominals in assumed identity contexts, only two are acceptable in all cases (7). The 3SG > PL combination is acceptable when the subject is in its honorific form, which is phonologically identical to 3PL (8). When the subject is a plural with a singular predicate, ineffability arises. Telugu also shows hierarchy effects for PERSON but I abstract away from it here.

(7)

a. SUB > PRED	{*/✓}	b. SUB > PRED	{*/✓}
1SG > PL	✓	1PL > SG	*
2SG > PL	✓	2PL > SG	*
3SG > PL	* / ✓ 3SG.HON	3PL > SG	*

(8) vaaḷḷu picci-vaaḷḷu
3MS.HON mad-3PL
'He is the mad people'

Analysis: The repair for the 3SG case in (8) suggests a rescue-by-syncretism analysis, where a featural mismatch is rescued when the mismatched features have identical exponents (Pullum & Zwicky 1986 *et seq.*)

However, this cannot be a phonological rescue since all 3rd person agreement markers are null (6). I suggest that these cases are rescued due to the honorific pronoun's featural makeup — they have uninterpretable PL and interpretable SG features, the former participating in agreement and in PF operations, and the latter, LF.

I assume that the agreement morphology is hosted by a head F to which the small clause merges (10). To capture the hierarchy effect, I assume that F has probes relativized to [#: −PL] and [π: PART]. Crucially for this analysis, the number node of the feature geometry needs to have two independent daughters, [−PL] and [+PL]. I assume, as is common in the literature, that [π] probes before [#] (Coon & Keine 2019 a.o.). Once [π] is satisfied by the goal, [#] probes. In both probing cycles, *all* the features of the goal are copied; trivially if both probes agree with the same goal (cf. Deal 2015).

SG > PL: When the subject of the copular construction is a first or second singular pronoun, the probe on F agrees with the subject in SpecPred. In the 3SG > PL case (10), the person probe copies the features of the subject, but continues probing further to DP_2, which by assumption, does not have any person features, but its NUMBER features are copied. Now the probe has two feature sets, one with [#: −PL], and the other with [#: PL] (11). These conflicting values for NUMBER result in ineffability since there is no vocabulary item that can be inserted at F (12).

(9) * vaaDu picci-vaaLLu
3MS mad-3PL
'He is the mad people'

(10) $[F_{[\text{PART},-\text{PL}]}\ [\ DP_{[3\text{SG}]}\ \text{Pred}\ [\ DP_{[3\text{PL}]}\ ]\ ]\ ]$

(11) $F_{\{[3\text{SG}],[3\text{PL}]\}} \Longrightarrow$???

However, when the 3SG subject is an honorific pronoun, no such conflict arises (8). While the #-probe is not satisfied, the two goals it has interacted with have the same value for #, and hence a suitable vocabulary item can be inserted – ∅.

PL > SG: With plural subjects and singular predicates, the probe on F is never satisfied just by the subject, and hence probes the predicate. In all these cases, the situation in (11), modulo PERSON, arises, resulting in ineffability. Notice that if [#:−PL] weren't an independent daughter of the [NUM] node and was just the lack of [PL], the cases with 1PL and 2PL subjects would have been predicted to be acceptable, since the probe would have found a suitable goal, contrary to fact.

Conclusion: Number hierarchy effects so far attested in the literature all show a preference for [PL] over [SG] nominals (Coon & Keine 2020, Bhatia & Bhatt 2020), which can safely be captured by the feature-structure in Harely & Ritter 2002 by adopting an AGREE-based account. The data presented above however, cannot be. As long as [SG] is the absence of [PL], there is no way to look just for singular nominals. This motivated positing a [−PL] feature to target singular nominals to the exclusion of plural ones.

The presence of SG ≫ PL hierarchies, not just in Telugu, but also in Mundari (Murugesan 2021), suggests a need for explicitly referring to number values hitherto considered 'default'. Descriptively, the Telugu pattern can be captured by positing either [SG] or [−PL]. For a two-number system like Telugu, they are extensionally equivalent. However, if we equate [SG] and [PL] with Harley & Ritter's (2002) [MIN] and [GROUP] respectively, positing an explicit [SG] *in the syntax* predicts the availability of dual number—an undesirable result.

Furthermore, the hierarchy effects described above only arise in copular clauses with a number mismatch, and that too only when the subject is a conversational participant. All other phenomena dealing with ϕ-features in Telugu can make do with a privative [PL]. Absent evidence from other domains, we should not expect a child to posit [−PL] unless it were provided by UG. Since the Telugu speaker does posit it, and the relevant stimulus is bound to be poor, we are forced to conclude that universally, ϕ-features are bivalent in Syntax.

Béjar *et al.* 2019: *Number matching in Binominal Small Clauses*; **Bhatia & Bhatt 2020**: *Implications of Feature Realization in Hindi-Urdu Copular Sentences*; **Coon & Keine 2020**: *Feature Gluttony*; **Deal 2015**: *Interaction and satisfaction in φ-agreement*; **Harley & Ritter 2002**: *Person and number in pronouns*; **Preminger 2017**: *Privativity in Syntax*; **Murugesan 2021**: *Omnivorous person, number and gender: The view from Mundari*.