

## Locating Agreement in Grammar

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The location of agreement in the grammar has been the topic of considerable recent discussion. [4] has argued that agreement is a post-syntactic process, other approaches ([7], [6]) locate it entirely within the syntactic system. More recently the data from agreement with conjoined noun phrases has played an important role in this debate; in this domain we find closest conjunct agreement, a phenomenon whose seeming sensitivity to linear proximity indicates a post-syntactic component to agreement ([8]). We analyze a novel set of data from Hindi-Urdu that shows that a proper analysis of agreement requires reference to both a pre-spellout syntactic and a post-syntactic component. Hindi-Urdu is a language with both subject and object agreement and we show that while subject agreement is calculated in the pre-spellout syntactic component, the resolution of object agreement takes place in the post-syntactic component.

### Three Asymmetries between Subject and Object Agreement

- (1) Ram aur Sita gaa {rahe hĒ / \*rahii hai}  
 Ram.M and Sita.F sing {PROG.M.PL be.PRS.PL / \*PROG.F be.PRS.SG}  
 ‘Ram and Sita are singing.’
- (2) Ram-ne ek thailii aur ek **petii** (aaj) uṭhaa-**yii** /???uṭhaa-ye}  
 Ram-ERG a bag.F and a box.M (today) lift-PFV.F /???lift-PFV.M.PL}  
 ‘Ram lifted a small bag and a box.’
- (3) Ram-ne khariid-**ii** ek **kitaab** aur ek akhbaar  
 Ram-ERG buy-PFV.F a book.F and a newspaper.M  
 ‘Ram bought a book and a newspaper.’
- (4) [Ram ek baksaa] aur [Sita ek thailaa] uṭhaa{???-egii/ \*-ēge}  
 Ram.M a box.M.SG and Sita.F a bag.F.SG lift{-FUT.F/ FUT.M.PL}  
 ‘Ram was lifting a box and Sita a small bag.’
- (5) [Ram-ne ek baksaa] aur [Sitaa-ne ek **thailii**] uṭhaa{-**ii** / \*-ye}  
 Ram-ERG a box.M.SG and Sita-ERG a bag.F.SG lift{-F.SG / -M.PL}  
 ‘Ram lifted a box and Sita a bag.’

(i) *Person*: subjects can trigger agreement in person, objects never trigger agreement in person, only in number and gender.  
 (ii) *Closest Conjunct Agreement*: conjoined subjects always trigger resolved agreement, (1), while conjoined objects trigger closest conjunct agreement: last conjunct agreement in OV, (2), and first conjunct agreement in VO order, (3).  
 (iii) *Right Node Raising*: right node raising of verbs agreeing with subjects is subject to a matching effect, (4), while right node raising of verbs agreeing with objects is not, (5). Earlier work on Conjunct Agreement in Hindi-Urdu ([2]) has shown that an ellipsis based account along the lines of [1] is not feasible for Hindi-Urdu.

Therefore we do not consider that line of enquiry further here.

### The Proposal

Our point of departure is the person asymmetry between subjects and objects. This asymmetry was noted in [3] and [5]. Bhatt relates absence of person with object agreement to object agreement being an instance of dissociated agreement: a situation where a head agreement with an XP that it does not assign case to. However, this correlation is not an explanation - it remains to be explained why it is person that goes missing with dissociated agreement and not gender. Our explanation of the person effect is inspired by [7]’s activity condition. Our analysis adopts (i) the proposal that D is the locus of person features

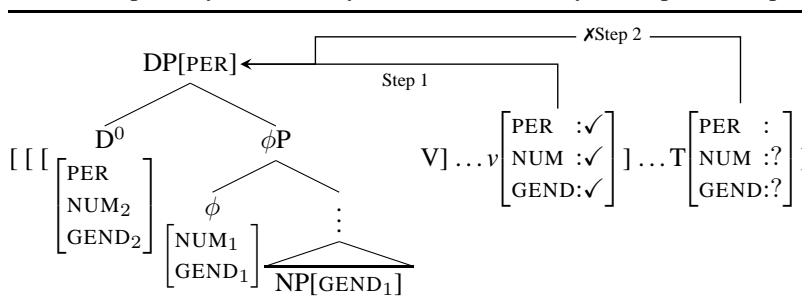


Table 1: Object agreement:  $v$  deactivates D layer (Step 1), blocking T-agreement with object DP (XStep 2), and forcing agreement with NP.

while gender and number features are located lower in the projection of NP [9], and (ii) a version of the Activity Condition ([7]), according to which XPs that have had their case-feature checked cannot enter into further (A-)syntactic relationships. The cases of subject agreement, where T agrees with a DP it case-licenses are unexceptional: T case-licenses the DP and agrees with its full set of features which include person features. Next we turn to object agreement – cases where T seemingly agrees with a DP that has already been case-licensed by  $v$ . Such cases involve the T agreeing not with the DP but with the NP. The NP is not ruled out as a Goal for Agree by the Activity Condition. But the NP does not have person features and hence object agreement is limited to gender and number. This treatment immediately raises the question of how NP comes to be visible for agreement purposes: we assume that a process of Secondary Agree applies. However the data so far does not clarify where Secondary Agree takes place – in the pre-spellout component or in the post-syntactic component. This is where the data from conjoined subject plays a decisive role.

### Agreement with conjoined subjects

We assume that conjoined DPs have a set of resolved features on their root

node. When the T-licensed DP is a coordinated DP, then as one might expect T agrees with the features on the entire coordinated DP (= &P). Hence only resolved agreement is an option. When the direct object is a coordinated DP, case licensing by  $v$  makes the resolved features on the &P inaccessible. We assume that the  $v$  licenses case on all the coordinated DPs. As before T cannot agree with the DP and hence secondary agree is triggered. The only possibility is agreement with an NP inside one of the coordinated DPs. The way in which the question of which NP ends up triggering

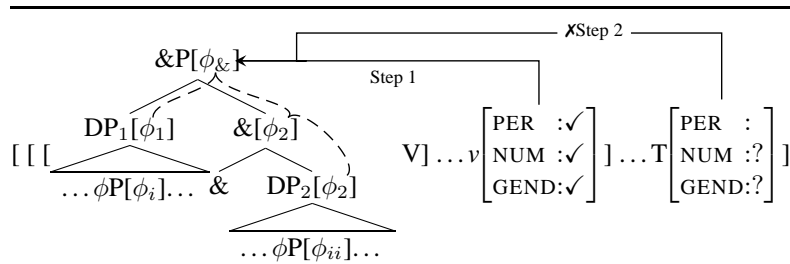


Table 2: Case assignment by  $v$  blocks T-agreement with &P.

but that the actual resolution of which NP triggers agreement is determined by linear proximity concerns in the post-syntactic component. **Right Node Raising** Our proposal for subject and object agreement delivers a straightforward explanation for why matching effects are found with right node raised verbs that agree with subjects, (4), but not with right node raised verbs that agree with objects, (5). We present an account in terms of multi-dominance, where a single element has to potentially realize two sets of features, but show how the analysis extends to an across-the-board movement analysis of right node raising. The features for subject agreement, Table 3, are resolved in the syntax and so a single probe ends up with two sets of features ( $\phi_1$  and  $\phi_2$  in Table 3). The resulting structure is only effable if the language has morphological resources (i.e. a syncretic form) that can simultaneously realize both sets of features. The case of object agreement, Table 4, is different. Object agreement does not deliver actual features; it delivers pointers to features ( $\ddagger$  and  $\ddagger$  in Table 4). These pointers are resolved subject to linear proximity considerations. Consequently, we

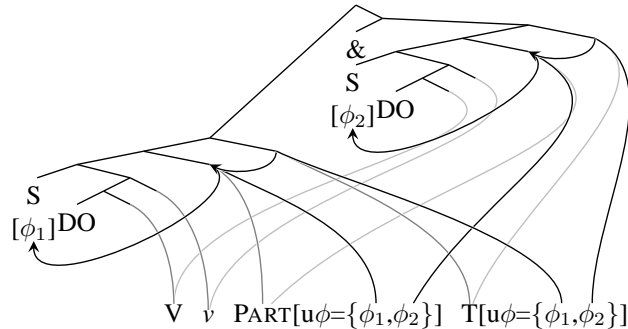


Table 3: T probes separately in each conjunct (dominance lines are in grey, lines of probing in black).

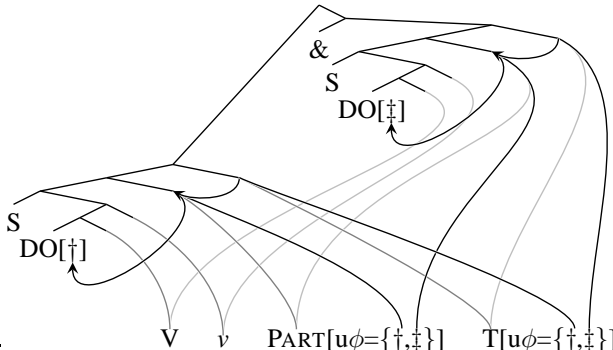


Table 4: Structure for object agreement .

only realize the features of the most proximal goal and no matching effects arise. **Discussion** An adequate account of agreement in Hindi-Urdu requires a model that is able to discriminate between agreement that is entirely in the syntactic component (subject agreement) and agreement which is partly circumscribed by syntax but whose resolution takes place in the post-syntactic component (object agreement). If all agreement was post-syntactic, the various asymmetries between subject and object agreement would not receive a natural treatment.

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