

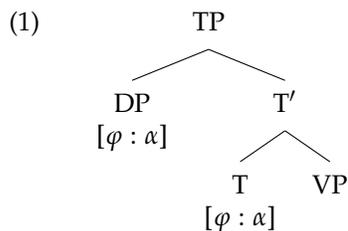
Syntactic Theory 2

Week 12: Bhatt on Long-Distance Agreement and Case

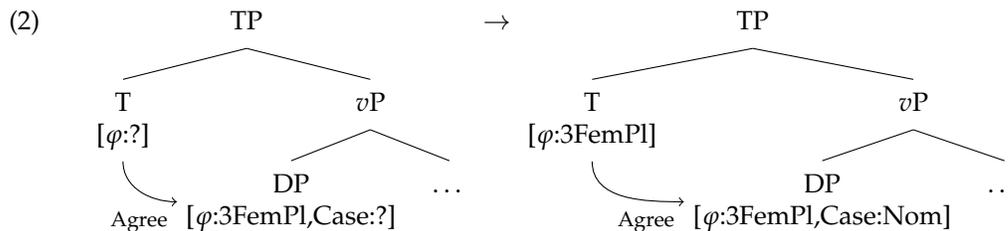
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- In Government & Binding, agreement occurred between a specifier and a head (a sub-case of government):



- In early Minimalism, this was reinterpreted as feature-checking under Merge.
- Chomsky (2000, 2001) instead argues that agreement precedes movement to a specifier position; instead, an Agree relation is formed when a probe finds a phrase in its c-command domain that matches in φ -features
- This was motivated in large part by phenomena in which a DP gets its Case feature checked *in-situ*. For Chomsky, Case checking is a “reflex” of φ -feature agreement:



- Chomsky (2001) proposes the **Activation Condition**, in part to account for freezing effects:
- **Activation Condition:** An XP that has unchecked features is eligible to be probed

(3) Mary_[φ:3SgFem,Case:Nom] is likely Mary_[φ:3SgFem,Case:?] to believe Kim

- The lower copy of *Mary* is “active” in (3) because of its unchecked Case feature, so T^0 probes it, Agrees, and raises it to Spec,TP (because of an EPP feature)
- In (4), the lower copy of *Mary* is no longer active, because its Case feature has been checked by the embedded T^0

(4) * $Mary_{[\varphi:3SgFem,Case:Nom]}$ is likely $Mary_{[\varphi:3SgFem,Case:Nom]}$ believes Kim

- Something like the Activation Condition may be necessary, because we still want this copy of *Mary* to be “relevant” for probing to explain Minimality effects:

(5) * $Kim_{[\varphi:3SgFem,Case:Nom]}$ seems $Mary_{[\varphi:3SgFem,Case:Nom]}$ was likely ~~$Kim_{[\varphi:3SgFem,Case:?)}$~~ to be nice

- That is, the matrix T^0 probes and finds *Mary*, an XP that matches in features. However, this DP is not active because its Case feature is already checked.
- In this framework, Agree is all about valued unvalued features, and Case serves to restrict when/where Agree can take place
- Bhatt will argue that the Activation Condition is actually irrelevant for φ -feature agreement – so, worst case scenario, φ -feature agreement and Case are decoupled; at best, Agree works differently for φ -feature agreement than it does for Case!

1 Hindi-Urdu Agreement

- Hindi-Urdu has ergative Case for the perfective and accusative for animate objects:

- (6) a. Rām-ne kitab paṛh-ī
 Ram-ERG book.F.SG read-PST.F.SG
 ‘Ram read the book’
 b. Sīta Rām-ko pyār-tī thī
 Sita Ram-ACC love-IMP.F.SG PST.F.SG
 ‘Sita loved Ram’
 c. Sīta-ne Vanīta-ko dekhā
 Sita-ERG Vaneeta-ACC saw-PST.M.SG

- The verb agrees with the highest unmarked DP; if all DPs are marked with a case, then it gets default masculine singular agreement
- However, verb agreement can cross clausal boundaries:

- (7) Vivek-ne [_{TP} kitāb paṛh-n-ī] cah-ī
 Vivek-ERG book.F read-INF-3.FEM.SG want-PST.3.SG.FEM
 ‘Vivek wanted to read the book’

- This is “long-distance agreement” (LDA), since the verb is agreeing with a DP that is not an argument

- LDA is optional:

- (8) a. Rām-ne [TP roṭī khā-n-ī] cāh-ī
 Ram-ERG bread eat-INF-3.FEM.SG want-PST.3.SG.FEM
 ‘Ram wanted to eat bread’
 b. Rām-ne [TP roṭī khā-n-ā] cāh-ā
 Ram-ERG bread eat-INF-3.MASC.SG want-PST.3.SG.MASC
 ‘Ram wanted to eat bread’

- LDA only occurs when the infinitive also agrees with the object, and vice versa:

- (9) a. *Rām-ne [TP roṭī khā-n-ī] cāh-ā
 Ram-ERG bread eat-INF-3.FEM.SG want-PST.3.SG.MASC
 ‘Ram wanted to eat bread’
 b. Rām-ne [TP roṭī khā-n-ā] cāh-ī
 Ram-ERG bread eat-INF-3.MASC.SG want-PST.3.SG.FEM
 ‘Ram wanted to eat bread’

- When the subject DP is unmarked, then it’s the highest DP, and thus obligatorily triggers agreement:

- (10) Rām [TP roṭī khā-n-ī] cāh-t-ā /
 Ram-ERG bread eat-INF-3.FEM.SG want-IMPF-PST.3.SG.MASC /
 *cāh-t-ī hai
 *want-IMPF-PST.3.SG.FEM PRES
 ‘Ram wanted to eat bread’

- Mahajan (1989) offered a GB analysis of these facts, wherein different aspects assign different Cases – perfective never assigns Case, imperfective does, and infinitival verbs can optionally assigned Case to their objects

- How does Case get assigned to objects of perfective and (some) infinitival verbs? An AgrP that dominates the VP:

- (11) [TP Sugato-ne [AgrP kitāb [VP Sugato kitāb paṛh] Agr] paṛhī]
 Sugato-ERG book read.3.SG.FEM
 ‘Sugato read the book’

- For Mahajan, agreement piggybacks and Case-assignment by Agr; so, if a participle assigns Case, then the DP does not raise to Spec,AgrP:

- (12) [TP Sugato [AgrP Sugato [VP Sugato kitāb paṛh] Agr] paṛhtā]
 Sugato book read.3.SG.MASC
 ‘Sugato read the book’

- A problem for this analysis is that the case of the subject *also* changes
- For Mahajan, LDA is triggered by movement through an embedded Spec,AgrP on the way to the highest Spec,AgrP for Case purposes when the embedded infinitival does not assign Case; otherwise, the DP receives Case *in-situ*

2 Problems for Mahajan's Analysis

- First, Accusative Case is assigned by v^0 , which is traditionally thought to be below Asp; thus, it's difficult to maintain the analysis that Asp determines the Case of the object:

(13) [TP [_{vP} Subj v [_{VP} V Obj]]]

- Furthermore, aspect *is* relevant to Case assignment of the subject, as described above, but not the object

(14) Additionally, Case assignment to the object is determined entirely internal to the CP/TP – all objects of transitive verbs surface with accusative Case regardless of the position of the clause:

- (15) a. [TP phal khānā] sehat-ke liye acchā ho-tā hai
 fruit eat.INF health-GEN for good be-PERF.3.SG.MASC PRES
 'Eating fruit is good for your health'
- b. Mala-ne phal khāy-e the
 Mala-ERG fruit eat-PRF.3.MASC.PL PST.3.MASC.PL
 'Mala ate fruit'
- c. Mala phal khātī hai
 Mala fruit eat.IMPF.3.SG.FEM PRES
 'Mala eats fruit'

- If these clauses all contain a transitive v^0 , then we would expect constant Case assignment regardless of the structure above the vP layer; this is less expected on Mahajan's analysis
- Additionally, embedded perfectives allow objects to appear *in-situ*, but is predicted to be impossible if they must raise to Spec,AgrP to get Case:

(16) a. [Latā-jī-kā yeh gānā gāyā ho-nā] namumkin hai
 Lata-HON-GEN this song sang be-INF impossible is
 'Lata-ji's not having sung this song is impossible'

- Additionally, moving the TP does not disrupt LDA; it would, however, if LDA was triggered by movement out of the TP (Davison 1991)

(17) Mujhe zarūr TP atīhai [TP saikil calānī]
 Me.DAT definitely come-HAB.FEM is.3.SG cycle.F ride.INF.3.SG.FEM
 'I surely know how to write a bicycle'

3 Bhatt's analysis

- Bhatt's analysis relies on decoupling Case-assignment/checking from agreement
- Case is assigned locally to a clause; with v^0 checking Accusative, T^0 assigns Nominative (the unmarked Case), and Ergative is checked by $T/Asp/v^0$
- T^0 AGREES for φ -features

(18) AGREE is the process by which a head X^0 with unvalued uninterpretable features (the Probe) identifies the closest Y^0/YP in its c-command domain with the relevant set of visible matching (i.e., nondistinct) interpretable features (the Goal), and uses the interpretable features of Y^0/YP to value its uninterpretable features. (If the Probe is φ -complete and the Goal has unvalued uninterpretable features, the Probe values and deletes these features)

- When the highest DP is unmarked/nominative, T^0 probes and values its features with this DP's features; otherwise, it probes to the object, and AGREES with its features if it's unmarked; otherwise, default features
- Given that aspect morphology also agrees with the relevant DP, Bhatt argues that T^0 first probes Asp^0 , because it's the closest c-commanded XP; fails to Agree, but "forms a link". T^0 then probes again, finds a DP, and then co-values T^0 and Asp^0 with those features:

(19) $T_{[\varphi:?]} \dots Asp_{[\varphi:?]} \dots [_{vP} DP_{[\varphi]} v DP_{[\varphi]}]$

- With this in place, then we predict that matrix T^0 will agree with the embedded object, as it's the closest DP with valued φ -features:

(20) Rām-ne [_{TP} roṭī khā-n-ī] cāhī thī
 Ram-ERG bread eat-INF-3.SG.FEM want.3.SG.FEM PST.3.SG.FEM
 'Ram wanted to eat bread'

- T^0 probes both Asp^0 and the lower infinitive T^0
- This also accounts for the parasitic nature of LDA – (finite) T^0 probes, links to Asp^0 , then probes and links to non-finite T^0 , then probes the embedded DP and co-values all three heads. This buys the "all or nothing" nature of LDA
- For Bhatt, non-finite T^0 is not an intervener (i.e., doesn't block Agree) because it is not φ -complete – it does not have a full set of φ -features, because it does not inflect for person. However, finite T^0 does, because it inflects for person, number, and gender.
- Additionally, LDA does not occur with subjects, only objects – this also follows from Bhatt's analysis:

(21) a. Mona [kuttō-ko dekh-nā] cāhtī thī
 Mona dogs.M.PL-ACC see-INF.SG.MASC want-3.SG.FEM PST.3.SG.FEM
 'Mona wanted to see the dogs'

- b. *Mona [kuttō-ko dekh-nī] cāhtī thī
 Mona dogs.M.PL-ACC see-INF.SG.FEM want-3.SG.FEM PST.3.SG.FEM
 ‘Mona wanted to see the dogs’

- This is because T^0 probes for the subject, which sits in the matrix vP , and raises that to Spec,TP. It never forms a “link” with the embedded T^0 :

(22) T^0 [_{AspP} [_{vP} DP [_{VP} [_{TP} ...]]]]

- Importantly, Bhatt assumes a “standard” theory of Case; a DP in an embedded Spec,TP of a non-finite TT^0 is predicted to be unacceptable for the usual reasons:

(23) *Rām-ne [_{TP} Mohan jānā] cāhā
 Ram-ERG Mohan go-INF.SG.MASC go.3.SG.MASC
 ‘Ram wanted Mohan to go’

4 Where do we see LDA?

- LDA is not observed with objects in embedded finite clauses:

(24) a. Firoz-ne soc-ā [_{CP} ki Mona ghazal gā-t-ī
 Firoz-ERG think-3.SG.MASC that Mona ghazal.F.PL sing-IMP-3.SG.FEM
 hai]
 PRES.3.SG
 ‘Firoz thinks that Mona sings ghazals’
 b. *Firoz-ne soc-ī[_{CP} ki Mona ghazal gā-t-ī hai]
 Firoz-ERG think-3.SG.FEM that Mona ghazal.F.PL sing-IMP-3.SG.FEM
 PRES.3.SG
 ‘Firoz thinks that Mona sings ghazals’

- Bhatt attributes this to the PIC – the object in this context is in the complement of a phase head, and is thus cannot be probed

- LDA is not permitted in certain contexts:

(25) a. [_{TP} mehnat karnā/*ī] acchā/*ī
 hardworkd do.3SG.MASC/*3SG.FEM good.MASC.SG/FEM.SG
 hotā/*ī hai
 be.3.SG.MASC/3.SG.FEM be
 b. Anjum-ne Saddaf-ko [_{TP} citṭhī likh-n-e]-ko kahā/*ī
 Anjum-ERG Saddaf-ACC letter.F write-INF-OBL-ACC say.3.SG.MASC/3.SG.FEM
 thā/*ī
 was.3.SG.MASC/3.SG.FEM
 ‘Anjum told Saddaf to write a letter’

- Bhatt suggests that the contexts where LDA is allowed are **restructuring** contexts:

- (26) a. mantri-ji-ne [TP sāre samācār jān-n-e] cāh-e
 minister-HON-ERG all news.M.PL know-INF-3.PL.MASC want-3.PL.MASC
 the
 PST.3.PL.MASC
 'The minister wanted to know all the news'
- b. Nadia-ko [TP gārī calā-n-ī] ā-t-ī hai
 Nadia-ACC car.3.SG.FEM drive-INF-SG.FEM come-IMP-3.SG.FEM PRES
 'Nadia knows how to drive a car'
- c. Nadia-ne [TP Sarosh-ko gārī calā-n-e] di-i
 Nadia-ERG Sarosh-ACC car drive-INF-OBL let-PREF.3.SG.FEM
 'Nadia let Sarosh drive the car'

- "Restructuring" is a phenomenon wherein an embedded CP/TP permits otherwise clause-bound phenomena to occur in the higher clause:

- (27) a. Gianni lo ha voluto [TP leggere t_θ]
 John him has wanted to.read
 'John wanted read to it' (Italian)
- b. *Gianni lo ha deciso [TP leggere t_θ]
 John him has decided to.read
 'John decided to read it'

- The complement of verbs *want, let, know how* are often restructuring contexts
- Bhatt argues that an embedded negation can license an NPI subject in the matrix clause in restructuring contexts:

- (28) a. ek-bhī laṛke-ne [TP Sītā-kī kitāb nahī paṛh-n-ī] cāhī
 one-PSI boy-ERG Sita-GEN book not read-INF-SG.FEM want-PST.3.SG.FEM
 'Not even one boy wanted to read Sita's book'
- b. *ek-bhī laṛke-ne [TP Sītā-se kitāb nahī paṛh-n-e]-ko cāhī
 one-PSI boy-ERG Sita-OBL book not read-INF-OBL-ACC want-PST.3.SG.FEM
 intended: 'Not even one boy told Sita to read the book'

- Bhatt takes Wurmbrand's (2001) analysis of restructuring, in which they are VPs that lack a subject. For Bhatt, there is also an embedded *vP* layer which can check Accusative Case.

5 Cross-linguistic Application

- Bhatt's analysis predicts that the following sentence is bad. However, he confesses that it's possible in some varieties of Hindi-Urdu:

- (29) *Rām-ne [TP roṭī khā-n-ī] cāh-ā
 Ram-ERG bread eat-INF-3.FEM.SG want-PST.3.SG.MASC

‘Ram wanted to eat bread’

- This is also acceptable in Kashmiri (Subbarao & Munshi 2000):

- (30) a. Raam-an che hameeSI yatshImatsi [TP panInis necivis khAAtri
 Ram-ERG be.PRES.FEM always wanted.FEM.PL self.DAT son.DAT for girls
 koori vuchini]
 see.INF.PL
 ‘Ram had always wanted to see girls for his son’
- b. Raam-an chu hameeSI yatshImut [TP panInis necivis
 Ram-ERG be.PRES.MASC always wanted.MASC.SG self.DAT son.DAT for
 khAAtri koori vuchini]
 girls see.INF.PL
 ‘Ram had always wanted to see girls for his son’

- Butt (1995) analyses infinitive agreement without LDA as local agreement between the infinitival verb and the embedded object. To get LDA, she then allows agreement between the main verb and the embedded clause, which for her is a gerund, and thus is a nominal with respect to agreement.
- Bhatt points out that this predicts that clauses should act like NPs for agreement in all contexts, but that’s not the case:

- (31) a. [TP mohnl’n’ yi philim vuchln’] chu mumkin
 Mohan.GEN.F.SG this film.F.SG see.INF.F.SG be.PRS.M.SG possible
 ‘Mohan’s seeing this film is possible’
- b. *[TP mohnl’n’ yi philim vuchln’] che mumkin
 Mohan.GEN.F.SG this film.F.SG see.INF.F.SG be.PRS.F.SG possible
 ‘Mohan’s seeing this film is possible’

- However, you’ll notice that the non-finite T⁰ agrees with the embedded object anyway. Thus, it seems that non-finite TP is a probe in Kashmiri independently. This is the reason why there’s infinitival agreement without LDA in Kashmiri but not Hindi, i.e., presumably non-finite T⁰ in Kashmiri is φ -complete

6 Optionality

- Bhatt analyses the optionality as optionality in the selectional properties of the matrix verbs – verbs *ā-* ‘to know how to’ and *cāh* ‘to want to’ may take a *vP* with a PRO (non-restructuring predicate) or a *vP* without a PRO (restructuring predicate):

- (32) a. Rām-ne [_{vP} roṭī khā-n-ī] cāh-ī
 Ram-ERG bread eat-INF-3.FEM.SG want-PST.3.SG.FEM
 ‘Ram wanted to eat bread’

- b. Rām-ne [_{vP} PRO roṭī khā-n-ā] cāh-ā
 Ram-ERG bread eat-INF-3.MASC.SG want-PRST.3.SG.MASC
 ‘Ram wanted to eat bread’

- He claims that non-restructuring predicates are ultimately gerunds, and thus may actually have a DP layer in addition to a *vP*/TP layer.
- However, *de* ‘to let’ always requires restructuring – i.e., LDA is obligatory in these contexts:

- (33) a. Nadia-ne [peṛ kaṭ-n-e] di-ye
 Nadia-ERG tree cut-INF-OBL let-PREF.MASC.PL
 ‘Nadia let the trees get cut’
 b. Nadia-ne [Sarosh-ko gārī calā-n-e] di-i
 Nadia-ERG Sarosh-ACC car drive-INF-OBL give-PREF.FEM.SG
 ‘Nadia let Sarosh drive the car’

- LDA is obligatory in this context, and Case of the embedded subject is assigned/checked in the embedded clause. Thus, we can say that this verb only selects for a *vP* without a subject, and that does not assign/check Accusative.

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