POSSESSIVE REFLEXIVES AND PRONOMINALS IN HINDI-URDU AND INDIAN SIGN LANGUAGE

Dissertation submitted to Jawaharlal Nehru University in partial fulfillment of the requirements for the award of the degree of ***MASTER OF PHILOSOPHY***

by:

RICHA

CENTRE OF LINGUISTICS AND ENGLISH
SCHOOL OF LANGUAGE,
LITERATURE & CULTURAL STUDIES
JAWAHARLAL NEHRU UNIVERSITY
NEW DELHI-110067
INDIA
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Centre of Linguistics & English
School of Language, Literature & Culture Studies
जवाहरलाल नेहरू विश्वविद्यालय
Jawaharlal Nehru University
New Delhi-110067, India

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CERTIFICATE

This is to certify that the dissertation entitled **"POSSESSIVE REFLEXIVES AND PRONOMINALS IN HINDI-URDU AND INDIAN SIGN LANGUAGE"**, submitted by **Richa**, in partial fulfillment of the requirements of the award of the degree of **MASTER OF PHILOSOPHY** of the University, is to the best of my knowledge an original work and may be placed before the examiners of evaluation.

Prof. Vaishna Narang
(Chairperson)

Dr. Ayesha Kidwai
(Supervisor)

Professor Vaishna Narang
Chairperson
Centre of Linguistics & English
School of Language, Literature
& Culture Studies
Jawaharlal Nehru University
New Delhi 110067

Gram : JAYENU Tel: 26704231, 26704664 Fax: 91-011-26165886

DECLARATION BY THE CANDIDATE

This dissertation entitled **"POSSESSIVE REFLEXIVES AND PRONOMINALS IN HINDI-URDU AND INDIAN SIGN LANGUAGE"** submitted by me, for the award of the degree of **Master of Philosophy**, is my original work and has not been submitted so far in part or in full for any other degree or diploma in any other university.

Richa

Richa

Centre of Linguistics &
English, School of Language,
Literature & Culture Studies
Jawaharlal Nehru University,
New Delhi - 110067

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"Man's mind has a natural adaptation to imagining correct theories of some kinds.....If man had not the gift of a mind adapted to his requirements, he could not have acquired any knowledge."

- Charles Sanders Pierce.

List of abbreviations

F	:	Feminine
M	:	Masculine
P	:	Person
SG	:	Singular
PL	:	Plural
DO	:	Direct Object
IO	:	Indirect Object
AV	:	Active Vioce
OV	:	Objective Voice
Pf	:	Perfective
SUB	:	Subject
NOM	:	Nominative
ACC	:	Accusative
ERG	:	Ergative
DAT	:	Dative
GEN	:	Genitive
LOC	:	Locative
ABL	:	Ablative

NEG : Negative

ABS : Absolutive

MOD : Modal

PRT : Participle

INF : Infinite

PST : Past

EDO : Embedded Direct Object

EMPH : Emphatic

IMPF : Imperfective

PASS : Passive

ESUB : Embedded Subject

REFL : Reflexive

INSTR : Instrumental

CAUSE : Causative

Indian Sign Language Abbreviations

INDEX $^{\text{FRONT}}$: 2P Singular

INDEX $^{\text{IPSI/CONTRA}}$: 3P Singular

INDEX $^{\text{SELF}}$: 1P Singular

INDEX $_{(LOC)}$: Index used for localisation purpose.

bf : Brow freeze

rb : Raised brow

hf : Head forward

FEM : Woman

/V/ : Conjunction dual.

FACE-ARC : Human plural

INDEX ^{SELF} –ARC ^{SELF} : 1P PL incl. Signer.

/S/ : Genitive

(Sinha, S. 2003. *Skeletal Grammar of Indian Sign Language.* Unpublished Dissertation. JNU, New Delhi.)

Contents

CHAPTER I
INTRODUCTION

This dissertation explores the possessive reflexives and pronominal binding facts in Hindi-Urdu, and in Indian Sign language within the framework proposed by Chomsky (1999) in Minimalist Inquiries and Derivation by Phase.

1.1 Empirical Issues:

Hindi-Urdu, a predominantly head-final, WH-in situ, Modern Indo-Aryan language, employs a monomorphemic X^0-reflexive apnaa 'self' (which may also be used locally as a possessive reflexive) in addition to the morphologically more complex XP-reflexive, the 'X-self' reflexive apne-aap. The monomorphemic self-reflexive has quite distinct properties from those of the complex reflexive. First, monomorphemic reflexives may take quite long distance (subject) antecedents, whereas complex reflexives are typically local in nature. Second, complex reflexives, unlike these monomorphemic reflexives, exhibit a very strong 'subject orientation'.

The survey findings, employing a written questionnaire method among the native speakers of Hindi-Urdu, reveal the following empirical facts that need to be investigated, analyzed and explained (detailed description is provided in Chapter III):

a) All speakers disallow non subject antecedents in simplex clauses.e.g.

(1) $raam_i$-ne $sitaa_j$-ko $apnii_{i/*j}$ kitaab dii
Ram-ERG Sita-DAT self's book gave-pst
'Ram_i gave $Sita_j$ self's$_{i/*j}$ book.'

b) In non-finite clauses, most of the speakers allow the matrix subject or the embedded subject to be the antecedent.e.g.

(2) $raam_i$-ne $siitaa_j$-ko $apnii_{i/j}$ baRaaii karte hue sunaa
Ram-ERG Sita-DAT self's praise do-IMPF be-PF hear-pst.
'Ram_i heard $Sita_j$ doing self's$_{i/j}$ praise'.

(3) $nuur_i$-ne amiinaa$_j$-ko apne$_{i/j}$ kamre meN bhej diyaa

Noor-ERG Amina-DAT self's room into send give-pst

'Noor$_i$ sent Amina$_j$ into self's$_{i/j}$ room'.

(4) raam$_i$-ne siitaa$_j$-ko apne$_{i/j}$ ghar meN ghuste hue dekhaa

Ram-ERG Sita-DAT self's house into enter-IMPF be-PF see-pst

'Ram$_i$ saw Sita$_j$ entering into self's$_{i/j}$ house'.

(5) raajaa$_i$-ne mantrii$_j$-se apne$_{i/j}$ mahal meN jaane-ka vaadaa karwaayaa

king-ERG minister-INSTR. self's palace into go-INF-GEN promise do-CAUSE- pst

'The king$_i$ made the minister$_j$ promise to go into self's$_{i/j}$ palace'.

1.2 Theoretical Issues:

As per the Standard definition of the reflexive, a reflexive is a nominal that must be bound[1] by a c-commanding[2] antecedent. Languages differ in the number of morphosyntactic features encoded onto reflexives- a full φ-set or partial. They also differ in terms of the locality of the antecedent.

The properties of monomorphemic reflexives in languages like Hindi-Urdu do not follow from the Standard Binding Theory,

(6) Principle A: An anaphor is bound in its Governing Category[3]

would require that the reflexive be locally bound by a c-commanding antecedent in this local domain.

In the above examples (2), (3), (4) and (5), the Standard Binding Theory would identify the binding domains of the reflexives as the IP that contains them, and Principle A (An anaphor is bound in its Governing Category) would require that the reflexive be locally bound by a c-commanding antecedent in this local domain.

Reflexive Raising Approaches (Pica, 1987, 1991; Cole, Hermon & Sung, 1990; Cole & Sung, 1994) propose that reflexives must raise as reflexive interpretation is accomplished by

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[1] β is bound by α iff β and α are co indexed, α c-commands β (and α is in an A- position).

[2] α c-commands β iff the maximal projection dominating α dominates β, and α doesn't dominate β.

[3] α is the governing category for β iff α is the minimal category containing β, a governor of β, and a SUBJECT accessible to β.

raising the reflexive into the domain of its antecedent due to their lack of a full φ-set. Different categorial status is taken to be responsible for the difference in the distribution of reflexives.

Reflexivity approaches (Reinhart & Reuland, 1993; Fox, 1993; Lidz, 1996) proceed along the lines of those in Chomsky (1986b) and Keenan (1987). These approaches too allow anaphors to raise but restrict the domain in terms of argument structure.

Raising reflexives in minimalism raises an important question- given a profusion of potential landing sites for reflexive raising, which functional projection (AGR-sP, AGR-oP, TP) should the reflexive target? Alice Davison (1998) claims that in languages like Hindi-Urdu, the reflexive cliticizes to TENSE, not AGR. Movement is required for interpretation, for the non-finite clauses. Kidwai (2000) proposes that all languages raise X°-reflexives to Tns and Principle A can evaluate derivations only when the reflexive reaches Tns. Principle A may be evaluated at two points in the derivation and hence, the ambiguity of reference of the reflexive.

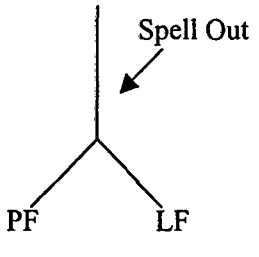
Chomsky and Lasnik (1993) analyze both XP- and X°-reflexives to have the categorial status of an X°-category that criticizes onto an inflectional head in order to agree with its specifier.

Ricahrds (1996) foregrounds the φ-feature composition issue and assimilates into the checking theory.

Though the anaphoric nature of the reflexive is considered to be due to a lack of a full φ-set in all the approaches, only some of them consider raising of the reflexives to be the entailment of this lack of a full φ-set.

1.3 **Proposal:**

Within current minimalism, we have the following model of UG:



Language, in this model, is the set of well-formed pairs (π, λ), where π is a PF representation and λ an LF representation. Spell out is an OPERATION that strips away phonological features of a derivation and sends them away on their way to PF. There are two kinds of conditions on derivations,

i) BARE OUTPUT CONDITIONS (BOC): Imposed at the interface with the Conceptual- Interpretive system (LF) and with Articulatory- Perceptual system (PF).

ii) ECONOMY CONDITIONS: General conditions on simplicity.

BOCs hold of the representations of the "Interface Levels" (PF & LF) and Economy Conditions hold of competing derivations (derivations must be optimal).

As the convergence of a derivation is determined both by BOC and Economy Conditions, reflexive binding has to be evaluated at the interface. Principle A and Principle B are interpretive conditions, i.e. conditions at the interface levels. So, these cannot be dispensed with. But no new objects are to be added in the course of computation as in *The Minimalist Program*(1995). " Given the numeration N, C_{HL} computes until it forms a derivation that converges at PF and LF with the pair (π,λ), after reducing N to zero (if it does). A **perfect language** should meet the condition of inclusiveness: any structure formed by the computation (in particular, π,λ) is constituted of elements already present in the lexical items selected for N, no new objects are added in the course of computation apart from rearrangements of lexical properties (in particular, no indices, bar levels in the sense of X-bar theory). This condition holds (virtually) of the computation from N to LF.(Chomsky 1995:228)

It is obvious that reflexive interpretation is contingent upon the licensing conditions for the reflexives. Reflexives are licensed under agreement. Though the lack of φ-features is the property responsible for their anaphoric nature, there is nothing in the reflexive itself that it needs (covert) raising.

In Chomsky's (1999) Minimalist Inquiries (MI) and Derivation by Phase (DP), movement is only for EPP. Derivation proceeds phase by phase and is assumed to be strictly cyclic. My proposal is that the reflexive agrees with T in situ. Uninterpretable features of T enter into an

agreement relation with interpretable features of reflexive, yielding the surface effect of agreement. Given the Inclusiveness condition, Agree can be taken as the core operation in reflexive interpretation.

1.4 Organization:

This introductory chapter provides an overview of the dissertation. Chapter II investigates the existing research on reflexives. Reflexive raising approaches, reflexivity approaches and raising reflexives in minimalism has been dealt with. Theoretical and empirical issues regarding Hindi-Urdu reflexives have also been provided. The chapter ends with giving a direction to new analysis.

Chapter III first presents the survey results regarding Hindi-Urdu reflexives. Reflexives in Hindi-Urdu causative constructions are analyzed using Manning (1994) and Pylkkänen (1999). A brief summary of *The Minimalist Inquiries* (2000) and *Derivation by Phase* (2001) is given, on which my proposal rests. The chapter ends with a thorough analysis of Hindi-Urdu reflexive binding facts according to the current minimalist guidelines. Chapter IV deals with the pronominal binding; theoretical and empirical issues and also with pronominal interpretation in Indian Sign Language. The dissertation ends with conclusion in Chapter V.

CHAPTER II

A SURVEY OF RECENT RESEARCH

Chomsky (1981) formulates the (standard) **Binding Theory** (BT) as follows:

1. (a) An anaphor is bound in its Governing Category (Principle A).
   (b) A pronominal is free in its Governing Category (Principle B).
   (c) An R-expression is free (Principle C).
2. α is the governing category for β iff α is the minimal category containing β, a governor of β, and a SUBJECT accessible to β.
3. (a) β is bound by α iff β and α are coindexed, α c-commands β (and α is in an A-position).
   (b) α is free iff it is not bound.
   (c) α c-commands β iff the maximal projection dominating α dominates β, and α doesn't dominate β.

Although this standard BT can account for local binding of anaphors in languages like English, it is empirically inadequate for a description of the reflexive interpretation facts in languages like Chinese, Korean, Norwegian, Russian, Dutch, Hindi- Urdu, Japanese, and Malayalam. Such languages usually employ a monomorphemic self-reflexive (which may also be used locally as a possessive reflexive) in addition to the morphologically more complex x-self reflexive as in English, Hindi- Urdu, '*apne-aap*', Chinese '*ziji*' etc. The monomorphemic self reflexive exhibits properties that are quite distinct from those of complex reflexive; in that, as shown in 4 (a)- (e), such monomorphemic reflexives may take long-distance antecedents, whereas complex reflexives are typically local in character:

4. (a) zhangsan$_i$ renwei Lisi$_j$ zhidao wangwu$_k$ xihuan ziji$_{i/j/k}$. (*Chinese*)
   Zhangsan think Lisi know Wangwu like self
   'Zhangsan$_i$ thinks Lisi$_j$ knows Wangwu$_k$ likes self$_{i/j/k}$'

(b) jon_i heldur a_ $Haraldur_j$ se a_ skrifa bokina $sina_{i/j}$ (*Icelandic*)
John thinks that Haraldur is writing book self's
'$John_i$ thinks that $Harald_j$ is writing $his_{i/j}$ book.'

(c) $siitaa_i$- ne $raam_j$ –ko [PRO_j $apnii_{i/j}$ kitaabeN paRHne] diiN (*Hindi-Urdu*)
Sita-ERG Ram-DAT self's books to-read gave
'$Sita_i$ allowed Ram_j to read self's$_{i/j}$ books.'

(d) jon_i fortalte per_j om et bilde av $seg_{i/*j}$. (*Norwegian*)
John told Peter about a picture of self
'$John_i$ told $Peter_j$ about a picture of $himself_{i/*j}$.'

(e) jij hoorde mij over zich praten (*Dutch*)
he heard me about self talk
'He heard me talk about himself.'

In each of these cases, the Standard BT would identify the binding domain of the reflexive as the IP that contains it, and principle A would require that the reflexive be locally bound by a c-commanding antecedent in this local domain. This formulation of the binding domain, then, not only rules out the possibility of long-distance binding, but also allows for the option of non-subject antecedents for the reflexive.

This theory totally focuses in terms of the syntactic domain. Chomsky (1986 b) also develops the notion of CFC (Complete Functional Complex). CFC is the smallest maximal category containing all the grammatical functions compatible with its head. Domain, here, can be identified in terms of argument structure. For Chomsky (1986 b) smaller domain has to be looked at first; the larger being default (locality defined by T as in Chomsky, 1981).

A major strand of the subsequent research on the binding theory, in the decades after Chomsky (1981), has focussed on the typological variations between languages with respect to the interpretations of reflexive elements. This chapter critically examines the

major proposals in this regard, both to determine the necessity of the analysis I propose and defend in this dissertation, as well as to identify the major empirical and theoretical criteria that such an analysis must satisfy.

2.1 Reflexive Raising Approaches

2.1.1. Pica (1987, 1991)

Developing suggestions in Chomsky (1986b) that reflexive interpretation is accomplished by raising the reflexive into the domain of its antecedent, Pica suggests that the divergence in the properties of the two types of reflexives, simplex and complex, follows from a difference in their categorial status. He proposes that long-distance (LD) reflexives have the categorial status of X° categories that project a structure with the head (the reflexive) and its maximal projection. Local reflexives, on the other hand are XPs that lack any internal X-bar theoretical structure. Then, on a strong thesis of X-bar compatibility of movement, it follows that XP-reflexives can either substitute into [Spec, XP] or adjoin to XP at LF, but X^{0} reflexives can undergo successive cyclic movement at LF. This explains the properties of LD reflexives following the assumption that the X° reflexive moves cyclically to each I° ; Principle A being satisfied at each step.

Thus, the relationship between the reflexive and its antecedent is covertly local in nature. By this proposal, the LF representation of 4 (d) will then be (5):

5. jon I° -seg$_i$ [fortalte per [om et bilde av t]]

The only c-commanding antecedent for X°–reflexive is the subject, hence its subject orientation.

While Pica's analysis has more cross-linguistic validity than Battistella (1987) (who also proposes that Chinese reflexives raise from argument position to INFL at LF, but does not account for the differences between Chinese and English), it leaves two important

questions unaddressed: (i) Why should UG permit such typological variations in natural language?, and (ii) Why should reflexive interpretation involve raising at LF?

2.1.2. Cole, Hermon & Sung (1990), and Cole & Sung (1994)

Cole, Hermon & Sung (1990), and later Cole & Sung (1994) attempt to address the first question by developing an analysis of the long-distance use of reflexives in Chinese that draws crucially on the insights of Huang (1982; 1984b), who proposed that the availability of non-gap and null topics and the absence of 'that'-trace effects in Chinese, as shown in (6) – (8) below, with provides evidence that INFL in Chinese is lexical:

(6) *non-gap topic*

(a) shuiguo, wo xihuan pingguo
fruit, I like apples

(b) *Fruit, I like apples

7. *null topic*

(a) zhongguo, difang hen da. ø [zhonggguo], renkou hen duo. ø tudi hen feiwo. ø, women dou hen xihuan.
'China, (its) land area is very large. (Its) population is very big. (Its) land is very fertile. We all like (it).

(b) *China, the area is very large. Population is very big. Land is very fertile. We all like it.

8. *That- trace effect*:

(a) ni zhidao [[shei maile shenme]]]?
you know who buy what

(b) *who do you think that left?

Huang suggests that these differences between Chinese and English occur due to the fact

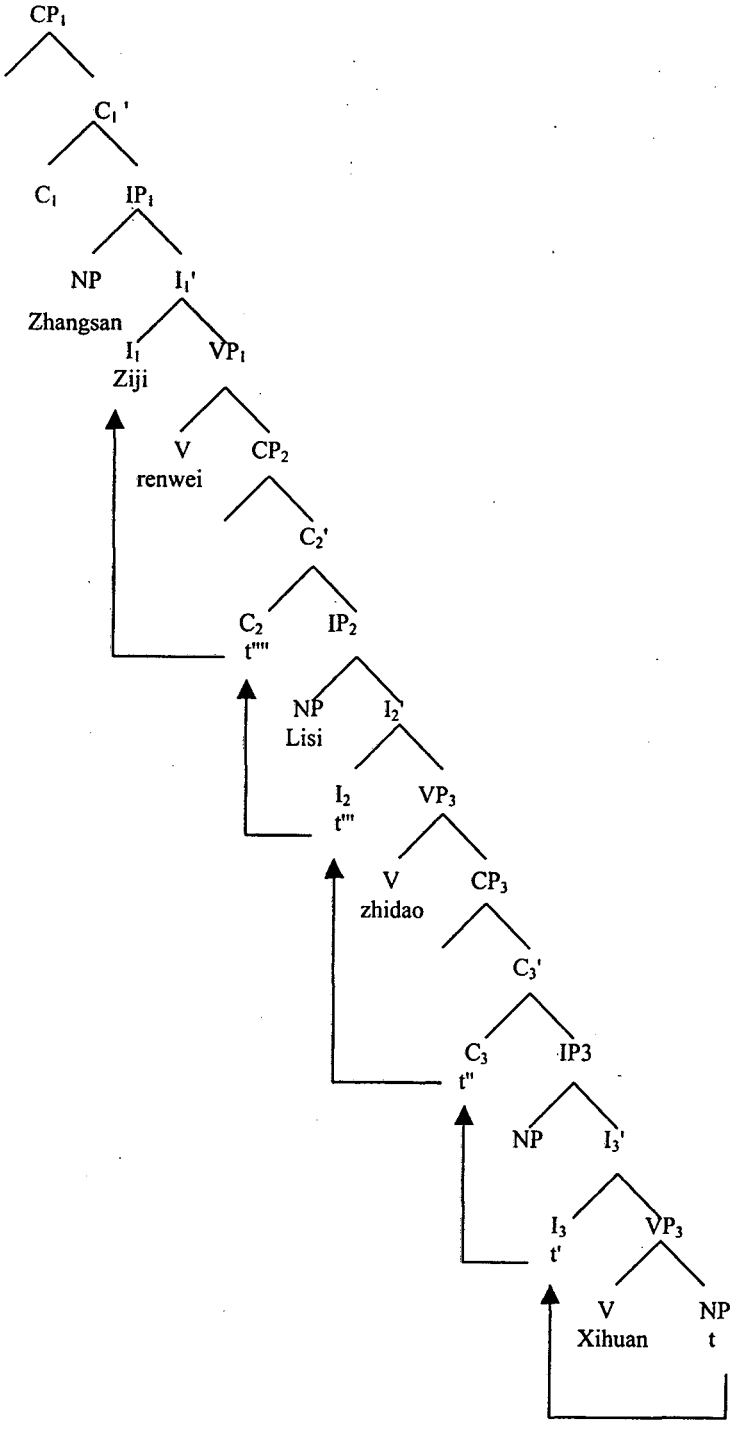
that in the Chinese lexical INFL properly governs the subject of its clause, with the result that the Chinese IP-adjoined non-gap and null topics in (6-7a) will be case-marked and hence licensed. In English, however, the functional nature of INFL prevents proper government of the topic, and therefore the ungrammaticality of (6b).

Assuming the theoretical framework of Chomsky (1986b) and Pollock (1989) for movement, Cole, Hermon & Sung suggest that the difference between Chinese and English reflexives arise from an interaction between the lexical vs. functional INFL parameter, the φ-features of reflexives and the locality conditions movement. They propose that reflexives must raise.

Let us consider the follwing example,

9. (a) zhangsan renwei [Lisi [zhidao [wangwu xihuan *ziji*]] *(Chinese)*
Zhangsan think Lisi knows Wangwu like self
'Zhangsan thinks that Lisi knows that Wangwu likes himself'.

(b)


CP1
C1'
C1
IP1
NP
I1'
Zhangsan
I1
VP1
Ziji
V
CP2
renwei
C2'
C2
IP2
t''''
NP
I2'
Lisi
I2
VP3
t'''
V
CP3
zhidao
C3'
C3
IP3
t''
NP
I3'
I3
VP3
t'
V
NP
Xihuan
t

X^0- traces are assumed to be anaphors, as they are left by the movement of anaphors. Then in Chinese, as VPs are L-marked[1] by INFL, VP does not constitute a barrier, but in English VPs will count as a barrier and movement of trace from C_3 to I_2 and C_2 to I_1 is barred in English but not in Chinese.

The 'blocking effect' (on long-distance anaphora in Chinese, first noted by Tang (1989), motivates Cole, Hermon & Sung's analysis, e.g..

10. zhangsan renwei [wo zhidao [wangwu xihuan *ziji*]]
Zhangsan think I know Wangwu like self
'Zhangsan thinks that I know that Wangwu likes himself'.

Here, '*ziji*' can only be coindexed with Wangwu'. To explain this, Cole, Hermon & Sung (argue that each INFL. must agree with '*ziji*' in φ-features, as well as the subject of its own clause also. When '*ziji*' raises to the INFL.of intermediate clause, it cannot match the φ-features there as the subject of intermediate clause is in 'first person'. Hence, the movement is barred and we get the result that '*ziji*' can only co-refer to 'Wangwu'. Thus, locality conditions are obeyed at each and every successive raising. Locality is considered at the particular time of derivation.

As Cole and Sung (1994: 356) observe, proposals for the LF-raising of reflexives treat "LD reflexives as only seemingly LD; in all analyses of this group, the relationships between the reflexives and its antecedent is covertly local in nature" and make reflexive interpretation contingent upon the φ-feature composition of reflexives themselves in interaction with locality conditions on movement.

But this analysis poses a problem as far as interpretability is concerned. The features, in this approach, are –interpretable and underspecified, they get the value in spec.TP. Because successive raising is allowed, the features must be +interpretable as only for

[1]L-marking: where α is a lexical category, α L-marks β iff β agrees with the head of γ that is governed by α. (Chomsky 1986b).

+interpretable feature checking can be more than once.

2.1.3. Hestvik (1990)

Hestvik (1990) highlights that the existence of a typology within reflexive raising languages themselves, and argues that that raising is not only limited to LF but occurs at S-structure also. Under this approach, anaphors may be marked with a feature indicating whether they are to be bound or free at S-structure or at LF.

[+b_S] : may be locally bound at S-structure. [-b_S] : must be locally bound at S-structure.
[+b_L] : must be locally bound at LF. [-b_L] : must be locally free at LF.

In Chinese, if a X^0- reflexive moves out of its own clause at LF and has the feature [+b_L], it will have the appearance of being long-distance bound, e.g..

11. Lisi INFL-*ziji* [wangwu INFL-t_i xihuan t_i]]

Because Chinese '*ziji*' has feature [+b_S], it may be locally bound at S-structure. Thus, the embedded subject 'Wangwu' may be the antecedent. It also has the feature [+b_L] that is why it may optionally move to the matrix subject. In Dutch, on the other hand, only long-distance binding is allowed:

12. hij hoorde jan over zich praten
he heard Jan about self talk
'He heard Jan talk about him.'

Hestvik explains it as it follows from his system that 'zich' has [-b_S] and [+b_L] features.Because it is marked [-b_S], it can not be bound by 'Jan'. When 'zich' moves at LF to the matrix INFL., it can be bound by the matrix subject, as 'zich' has [+b_L] feature. The LF-structure of (12) will be (13),

13. hij hoorde-zich$_i$ [jan INFL t'$_i$ over t$_i$ praten]

With Cole, Hermon & Sung (1990) and Hestvik (1990), it may be noted that the adequacy criteria on an analysis of LD reflexives is significantly altered. Whereas in Pica-style reflexive-raising approaches are motivated by interpretive conditions, the Cole, Hermon & Sung and Hestvik (1990) show that reflexive raising interpretations are contingent upon parametric choices about the feature compositions of the reflexives themselves, the functional heads that they criticize to, as well as the design properties of UG, such as the locality conditions on movement.

2.1.4. Mahajan (1990)

Mahajan (1990) examines the interaction of overt movement with reflexive interpretation, on the expectation that given that movement may be covert or overt, overt movement would significantly affect reflexive interpretation.

In his analysis of Hindi-Urdu word order and reflexive binding, Mahajan makes the crucial assumption of the articulated IP-structure of Chomsky (1989) and Pollock (1989), together with the proposal that all structural case[2] is tied to the AGR system. Therefore, all arguments that need structural case must move out of the VP to receive structural case in the specifier positions of the functional projections internal to IP. These positions are also the positions from which A-binding takes place.

Under standard assumptions, structural case is necessary to make arguments visible for theta-assignment at LF, and Mahajan, therefore, argues that structural case becomes relevant only at LF, with the S-structure/ Spell-out case requirements for arguments being far weaker:

(14) *S-structure visibility*: Every overt NP requires a case at S-structure. This case can be either lexical or structural.

[2] Structural case: It is subject to the requirement that the case assignor govern the NP which it case marks.

LF visibility: Every NP or every A-chain with a lexical NP must have a structural case.

Mahajan further assumes that even arguments bearing lexical or structural case from the verb need to move to a VP-external functional projection by LF.

Mahajan notes that if Hindi-Urdu objects can be preposed to an L-related position[3] then one would expect them to be able to serve as antecedents to a reflexive in subject position, e.g..

15. (a) */??? [apne$_i$ baccoN-ne mohan-ko$_i$ ghar se [t_{SUB} t_{DO} nikaal diyaa]]
self's children (SUB) Mohan (DO) house from throw give-perf
'*/??? 'self's$_i$ children threw Mohan$_i$ out of the house.'

(b) ? [mohan-ko$_i$ apne$_i$ baccoN-ne ghar se [tSUB tDO nikaal diyaa]]
Mohan (DO) self's children (SUB) house from throw give-perf
? 'self's$_i$ children threw Mohan$_i$ out of the house.'

He further notes that a Hindi-Urdu direct object left scrambled over an indirect object containing a reflexive can also serve as an antecedent for that reflexive, e.g..

16. (a) raam-ne$_i$ apne$_{i/*j}$ baccoN-ko _er$_j$ dikhaayaa
Ram (SUB) self's children (IO) tiger (DO) show-perf- m
'Ram$_i$ showed a tiger$_j$ to self's$_{i/*j}$ children.'

(b) raam-ne$_i$ _er$_j$ apne$_{i/j}$ baccoN-ko dikhaayaa
Ram (SUB) tiger (DO) self's children (IO) show-perf-m
'Ram$_i$ showed a tiger$_j$ to self's$_{i/j}$ children.'

[3] α is L-related to β, if β is a lexical category and α is related to a projection of β (Chomsky1986b). So, L-related positions are the specifier and complement positions of a lexical item and functional heads projected from it and, therefore, include all SPEC, and complement positions of V, I, T, AUX and AGR.

Mahajan explains that in 16 (b), along with the subject, the fronted DO can also serve as antecedent for the reflexive in IO. He suggests that reconstruction in Hindi-Urdu must be limited to the sites of variables and not argument traces. For him, contrary to Belletti and Rizzi (1988)'s proposal, Hindi-Urdu seems to show that there is no reconstruction under L-movement, e.g.,

17. (a) raam-ne$_i$ mohan-ko$_j$ apnii$_{i/j}$ kitaab lOTaaii
Ram (SUB) Mohan (IO) self's book (DO) return-perf
'Ram$_i$ returned self's$_{i/j}$ book to Mohan$_j$.'

(b) raam-ne$_i$ apnii$_{i/*j}$ kitaab mohan-ko$_j$ lOTaaii
Ram (SUB) self's book (DO) Mohan (IO) return-perf
'Ram$_i$ returned self's$_{i/*j}$ book to Mohan$_j$.'

(c) apnii$_{i/*j}$ kitaab raam-ne$_i$ mohan-ko$_j$ lOTaaii
self's book (DO) Ram (SUB) Mohan (IO) return-perf
'Ram$_i$ returned self's$_{i/*j}$ book to Mohan$_j$.'

In 17 (a), the reflexive can be bound by the subject and the IO. However, if the DO is fronted over the IO, the reflexive can no longer be bound by IO in 17 (b). Furthermore, in 17 (c), the reflexive when moved to a sentence initial position, can refer only to the subject. The interpretation possibility, as Mahajan claims, indicates that the phrase containing the reflexive can be reconstructed. If reconstruction was possible to the D-structure position of DO, then the interpretation possibilities of 17 (a) should be available for 17 (c). Since the reflexive in 17 (c) can only refer to the subject, reconstruction must be restricted to some position higher than the IO. This can only be possible under the assumption that in

18. apnii kitaab [raam-ne t_1 mohan-ko t_2 lOTaaii]

reconstruction was possible only to the site of t_1 (a variable) and not to the site of t_2 an NP trace.

Mahajan discusses some cases of long-distance NP-fronting out of a finite clause in Hindi-Urdu to show that at least these cases of NP fronting must be movement to a non-L-related position, i.e. adjunction shift. Since weak crossover evidence shows that long-distance NP fronting out of a finite clause is an instance of non-L-movement, one expects that this type of NP fronting does not affect the reflexive binding possibilities, e.g..

19. (a) *apnii$_i$ bahan- ne socaa ki raam-ne mohan-ko$_i$ dekhaa
self's sister (SUB) thought that Ram (ESUB) Mohan (EDO) saw
'*self's$_i$ sister thought that Ram saw Mohan$_i$.'

(b) *mohan-ko$_i$ apnii$_i$ bahan-ne socaa ki raam-ne dekhaa
Mohan (EDO) self's sister (SUB) thought that Ram (ESUB) saw
'*Mohan$_i$, self's$_i$ sister thought that Ram saw.'

In (b), a potential antecedent is scrambled long-distance to the left of a reflexive, but it fails to antecede a reflexive in the matrix clause. Furthermore, if the reflexive is contained in the subject phrase of the embedded clause and the object of that clause is moved to the matrix clause, that object can serve as an antecedent of the reflexive, e.g..

20. (a) ?? raam-ne mohan-ko$_i$ socaa ki apne$_{i/*j}$ baccoN-ne ghar se
Ram (SUB) Mohan (EDO) thought that self's children (SUB) house from
nikaal diyaa
throw give-perf
'Ram thought that self's$_{i/*j}$ children threw Mohan$_i$ out of the house.'

(b) mohan-ko$_i$ raam-ne socaa ki apne$_{i/*j}$ baccoN-ne ghar se
Mohan (EDO) Ram (SUB) thought that self's children (SUB) house from
nikaal diyaa
throw give-perf

'Ram thought that self's$_{i/*j}$ children threw Mohan$_i$ out of the house.'

The relevant representations are:

21. (a) [$_{IP}$ raam-ne$_j$ [mohan-ko$_i$ [$_{VP}$ socaa [$_{CP}$ ki [$_{IP}$ [$_{SPEC.T}$ t"$_i$] apne$_{i/*j}$ baccoN-ne ghar se t'$_i$ nikaal diyaa]]]]]

(b) [$_{IP}$ mohan-ko$_i$ [$_{IP}$ raam-ne$_j$ [$_{VP}$ socaa [$_{CP}$ ki [$_{IP}$[$_{SPEC.T}$ t"$_i$] apne$_{i/*j}$ baccoN-ne ghar se t'$_i$ nikaal diyaa]]]]]

Clause internal NP fronting first moves the embedded DO to the front of the embedded subject. Further application of long-distance NP movement moves this fronted phrase to matrix clause (an instance of non-L-movement). The intermediate trace t'$_i$, a variable, binds the reflexive in the embedded subject.

Mahajan's system has some interesting consequences. If leftward NP movement could take place to an L-position then the NP thus moved must be receiving a structural case in its derived position. Since perfect participle in Hindi-Urdu doesn't assign structural case, the objects of such verbs have two options at S-structure to fulfil the visibility conditions stated earlier. They may either –ko (lexical case) or they may move to a structural case position, i.e. SPEC, AGRo. If they move to SPEC, AGRo, they can bind a reflexive or a pronoun that they c-command as observed in previous examples. Thus Mahajan's analysis links the binding of reflexives to hierarchical positions they attain for case agreement.

2.2. Reflexivity Approaches

The fundamental assumptions of the syntactic binding approaches is that pronouns and anaphors are in complementary distribution and that reflexives differ from pronouns in having discourse referents. Although this is true in many contexts, there are contexts where this complementarity breaks down, e.g..,

31. (a) Max criticized himself/*him.
(b) Max saw a gun near himself/him.
(c) Max likes jokes about himself/him.

Although Chomsky (1986b) provides explanation for the NP context in (a), it does not account for contexts in (b) and (c). The sentences above differ in their argument structure. Whereas in (a) the anaphor and its antecedent are co-arguments, in (b) and (c) they are not. The environments where a pronoun must be free are thus much more restricted than the environments where an anaphor can be bound. In order to account for these facts,

2.2.1. Reinhart & Reuland (1993)

Reinhart & Reuland (1993), henceforth R&R, take a more traditional view of anaphora where a much closer relation between anaphora and argument structure is assumed. In traditional linguistics, reflexivization was analysed as a property of predicates. The core existed in the nature of the relation expressed by the verb. R&R (1993) suggest that a universal property of natural language seems to be that reflexivity must be licensed. A predicate (formed of N, V, etc.) can be reflexive only if it is linguistically marked as reflexive. This can be in two ways, either marking the predicate's head or marking one of the arguments. The heads (verbs) are marked as such in the lexicon, with or without an overt morphological marking of the verb. Reflexivization is viewed, in these cases as an operation on the verb's theta grid, absorbing one of its roles. Such verbs can be used only reflexively, and languages vary on whether the absorbed role is realized in the overt syntax (as in Dutch) or not (as in English). Based on the two properties, reflexivising function and referential independence, R&R give the following typology of anaphoric expressions:

	SELF	SE	Pronoun
Reflexivising function	+	-	-
Referential function	-	-	+

SE anaphors must move to I to acquire ø-features. The full distribution of SE anaphors, then, falls under the binding theory.

The main tenet of R&R's proposal is that in the explanation of anaphora a major role should be played by a non-structural condition defined over predicates. They claim that two different modules of grammar govern the distribution of anaphors and pronouns. One module consists of a structural condition defined over a modified notion of an A-chain. The other consists of two structural conditions defined over predicates.

32. R&R's Chain condition: [4].

(a) Definition- A maximal A-chain is any sequence of (two or more) coindexed elements which is headed by an A-position and satisfies antecedent government.

(b) General conditions on A-chains- A maximal A-chain $< a_1 \ldots\ldots a_n >$ must contain exactly one link a_1 which is both +R (referentially independent) and case marked.

33. max hoorde [zichzelf/zich/*hem zingen] (Dutch)
Max heard SELF /SE *Pron/him sing

In (33), there is a chain<Max...hem> which contains 2 +R links, violating the Chain Condition.

34.* Himself_i likes Bill_i.

The chain here is <himself...Bill> headed by –R element, hence the ungrammaticality.
R&R's version of binding theory is summarized as follows.

35. *Definitions*

(a) The *syntactic predicate* formed of (a head) P is P, all its syntactic arguments, and an external argument of P (subject).

[4] Pollard and Sag (1992) also formulated Principle A of BT (1981) as follows: An anaphor must be co-indexed with a less obilque referential co-argument; if there is one.

(b) The *syntactic arguments* of P are the projections assigned theta role or Case by P.

(c) The *semantic predicate* formed of P is P and all its arguments at the relevant semantic level.

(d) A predicate is *reflexive* iff two of its arguments are coindexed.

(e) A predicate (formed of P) is *reflexive-marked* iff either P is lexically reflexive or one of P's arguments is a SELF-anaphor.

36. *Conditions*:

A: A reflexive-marked syntactic predicate is reflexive.

B: A reflexive semantic predicate is reflexive-marked.

Let us take some examples:

37. (a) * Max haat zich. (Dutch)
Max hates SE

(b) Max schaamt zich
Max shames SE

(c) Max_i criticized $himself_i$/*him_i. (English)

(d) There were five tourists in the room apart from myself.

(e) * Five tourists talked to myself in the room.

(f) $Lucie_i$ saw a picture of $herself_i$/her_i.

In (a), Condition B rules out anaphora here as reflexive predicate is not licensed. In (b), a verb like *schamen* 'shame' is intrinsically reflexive, hence Condition B is satisfied as reflexive predicate is reflexive marked. In (c), with 'himself' the reflexive predicate is appropriately reflexive marked but with 'him' the reflexive predicate is not licensed. In (d), the anaphor occurs in an adjunct position, so no argument of the verb is a SELF anaphor and no reflexive-marked predicate is formed; hence, Condition A is satisfied. In (e), the free SELF anaphor is an argument of its predicate, so one of the arguments is SELF-marked and is defined as reflexive marked. Since no co-arguments of this predicate are coindexed, Condition A is not met. In (f), the reflexive is not argument of

the matrix verb so no reflexive predicate is formed and therefore, Condition B is met.

Thus, R& R's theory also offers a definition of the environment where logophors appear. There is no need to specify the maximal domain here. Logophoric reflexives - reflexives that appear to violate the Standard Condition A – can appear only in positions that are not argument positions of a syntactic predicate. Because Condition A of R&R's Binding Theory is defined over syntactic predicates and because only reflexives that arguments of a syntactic predicate can reflexive–mark the predicate, reflexives that are not arguments of a syntactic predicate are exempt from R&R's Condition A. These reflexives can appear freely and are only restricted by discourse conditions of accessibility. These discourse bound reflexives are not in complementary distribution with pronouns.

R&R claim that binding conditions themselves contain no reference to either configurational or thematic hierarchy. The binding is sensitive only to the reflexivising function, taking care of matching it with predicate reflexivity. All other aspects of local anaphora, which have to do with the R (referential) property, fall under chain theory. R&R observes that what was always believed to be sensitive to c-command, or other hierarchical restrictions, is precisely the issue of referential dependency, which they have reduced to R-relation which is the territory of chain theory. So, this approach, too, allows SE to raise but assimilates it to locality condition as restricting the domain in terms of argument structure.

Proposal of R&R have more to do with inflectional morphology. Yet, as Kidwai (1995) points out, inflectional morphology must also play a part in the process of reflexive licensing, since only it can be used to explain why language seem to systematically lack nominative reflexives.

2.2.2. Daniel Fox (1993)

Fox (1993) argues that Condition A can be reduced to the Chain Condition. This reduction provides a more natural division between linguistic modules, as on the one hand, there will be one syntactic condition (the Chain Condition); on the other, there will

be one semantic condition (Condition B).

Consider the following examples[5]

(39) (a). * Himself sneezed.
(b). * Himself washed.
(c). * Himself$_i$ washed himself$_i$.

In (a), a reflexive marked predicate isn't reflexive, and the sentence is ruled out by Condition A. In (b), the predicate 'wash' is intrinsically reflexive. Hence, Condition A is met. But the sentence is totally ruled out. Nothing in R&R's system seems to be able to explain this. Fox give the explanation as follows:

Consider R&R's explanation to rule out (c). In this sentence, there is one chain, <himself, himself > which is headed by a [-R] element and hence, the sentence is ill-formed. The same thing is applied to (b), if we say, there is a chain <himself>, that is headed by a [-R] element and is, thus, ill-formed. Fox criticizes R&R for deviating from standard assumptions about chains and disallowing a chain to consist of one element. But if, chains are supposed to be like the arguments at LF, we can have singleton chains. Fox modifies R&R's condition on A-chain as:

Definition: A maximal A-chain is any sequence of coindexation which is headed by an A-position and satisfies antecedent government.

In order to license logophors in appropriate positions, he assumes that A-position are argument positions of a syntactic predicate as it is defined in R&R. More specifically, an A-position is either a syntactic argument or the external argument of a syntactic predicate. A reflexive not in an A-position will never form a singleton chain and thus will never violate the Chain Condition.

[5] Pollard and Sag (1994) argue that the reflexive in subject position is not locally c-commanded and therefore, exempt from the binding condition.

Fox proposes that the only way a predicate is reflexive-marked is if its head bears the feature [+ reflexive]. The head of an inherently reflexive predicate bears the feature inherently. When the predicate is not inherently reflexive we can say that the [+ reflexive] argument (i.e. self) has to undergo movement and adjoin to the head of the predicate, forming a new head which bears the feature [+ reflexive]. It should be noted here that Fox's approach also restricts the domain in terms of argument structure like that of Jeffery L. Lidz (1996) and raising is indispensable too.

2.2.3 Lidz (1996)

Lidz links the distribution of verbal reflexives directly to argument structure. He proposes that the distribution of verbal reflexives is determined primarily by argument structure whereas the distribution of nominal reflexives is determined primarily by syntactic representations. He argues against the claim that reflexives like Dutch 'zich', Norwegian 'seg', Kannada 'tannu' etc. are antilocal, e.g..

39. (a) *Jan verraste zich *(Dutch)*
Jan surprised self
'Jan surprised himself.'

(b) hij hoorde mij over zich praten
he heard me about self talk
'He heard me talk about him (self).'

(c) Max legt het boek achter zich
Max put the book behind self
'Max put the book behind him (self).'

In (a), the CFC[6] is entire clause and ' zich' is not allowed. In (b), the CFC is the

[6] Complete Functional Complex (CFC): α is a CFC if all the grammatical functions compatible with a head

embedded clause and only the long distance interpretation is possible. Although this leads us to believe that local binding of 'zich' is not possible, but in (c), the minimal CFC is the whole clause and local binding is possible.

Lidz argues that these facts highlight the empirical inadequacy of the analyses of Hestvik (1990) – (c) instantiates an anaphor that can be locally bound at S-structure -- and R&R (1990) instantiates a case where a simplex anaphor does not resist binding by a coargument. For Lidz, these facts suggest the existence of a principle of UG which states that semantic reflexivity must be lexically expressed. So, the antilocality of reflexives is due to an interaction between syntactic, semantic and argument structure representation. It is due to an inability to express reflexivity in the argument structure representation of particular verbs.

Developing the idea that verbal reflexives arise due to properties of argument structure, Lidz argues that reflexive- marking exists as a result of a mismatch between the thematic and aspectual tiers of argument structure[7] (Mismatch Hypothesis). By definition, in a reflexive structure two arguments are linked to each other. This linking takes place through the aspectual tier so that the two arguments on the thematic tier are linked to one element on the aspectual tier, e.g..

40. (a) hari-yu (tann-annu) hoDe- du- koNDa (Kannada)
Hari-NOM (self-ACC) hit-PP-REFL.PST-3SM
'Hari hit himself.'

(b) (x (y)) thematic tier (x = Hari, y =self)
⋁
(1 (2)) aspectual tier

---

dominated by α are contained in α (Chomsky 1986).

[7] The basic idea is that each verb has a lexical-semantic representation which includes at least the participants in the eventualities described by the verb. Some of these participants are realized as syntactic arguments and are thus represented in the level of argument structure. The character of the argument structure , in combination with other syntactic properties , then determines the syntactic position of arguments. Argument structure consists of two tiers: a thematic tier, which represents elements projected from conceptual structural (Jackendoff 1983; 1990), and an aspectual tier which represents elements projected from event structure (Pustejovsky 1991).

Lidz argues that the Kannada verbal reflexives 'KOL' arises as the morphological instantiation of a particular argument structure. And, the assumption is that coreference of arguments can be represented in the argument structure. Coreference at this level gives rise to 'KOL' in sentences like,

41. (a) hari tann-annu hogaL-i-KoND-a
Hari self-ACC praise-PP-REFL.PST.-3SM
'Hari praised himself.'

(b) (x (y))
∨
(1 (2))

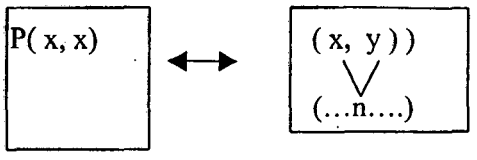
As a consequence of linking the two thematic arguments to the same aspectual element, the most prominent element remains unlinked, licensing the verbal reflexive. The anaphor is locally bound in 41 (a). The coargument restriction applies only in the absence of the reflexive as in,

42.*hari tann-onnu hogaL- id- a
Hari self-ACC. praise-PST.-3SM.
'Hari praised himself.'

The conclusion drawn is that coreference of coarguments must always be expressed in the argument structure in Kannada. That is, whenever two arguments are interpreted as coreferential, this fact must be indicated in the argument structure representation.

Lidz assumes, for concreteness, that this restriction is stated as an explicit condition (Condition R) at the interface between the semantic component and the argument structure component-

Condition R



sem.str.

This correspondence rule has the property of avoiding the syntax in establishing reflexivity. When the anaphor is present in the syntax and the predicate is reflexive in semantics, in order to provide a mapping, we have to find the anaphor in the syntactic representation, determining its domain and find out whether a c-commanding antecedent was present within that domain. In contrast, if reflexivity is established lexically, the correspondence between the semantics and the syntax only involves finding the lexical entries for each element. Thus, it reduces the complexity of the syntax-semantics interface. The 'coargument restriction'[8] is an epiphenomenon of this interaction, Lidz claims. It should be noted that Condition R exempts the cases where anaphor is not a coargument of its antecedent, e.g..

43. raama tann- a yedur- ige ondu kaaLa- vanna kaND- a
Rama self-GEN front-DAT one buffalo-ACC see.PST-3SM
'Ram saw a buffalo in front of him.'

Here, the anaphor may be locally bound in the absence of a verbal reflexive because coreference of elements which are not coarguments can't be represented in the argument structure.

Lidz provides further examples from Dutch and Norwegian to show that those reflexives may be bound by a coargument only when the verb is inherently reflexive. Their occurrences prove, as Lidz claims, that they are ambiguous between a verbal reflexive and an anaphor. It is an anaphor where it is not an argument of the same predicate as its antecedent and a verbal reflexive where it is an argument. But the syntactic representation

[8] Based on R&R, Lidz states that anaphor may be locally bound unless its antecedent is an argument of the same predicate as the anaphor itself. This, he terms the 'Coargument restriction'.

of both forms of 'zich'/ 'seg' is the same. The main question arises- what is the difference between the two uses? Lidz explains, assuming that the syntactic and referential dependence is a chain relation (cf. Chomsky 1973; Reinhart & Reuland 1993). A verbal reflexive does not form a chain relation with any other element. So, being non referential, they are not referentially dependent on the NPs. When 'zich' is a verbal reflexive, it is not a part of a chain with other NP and when it is an anaphor, it is in chain relation with other NP. So, if reflexivity is not expressed lexically, a chain must be formed to relate 'zich' to an antecedent.

The choice over both the *zich*s derives from the interface of the semantic component and the syntactic and argument structure component. Lexically, there is one 'zich', with the syntactic category D. This form is polysemous between an anaphor and a verbal reflexive. When it is an anaphor, its lexical representation includes whatever information requires a form to be subject to Principle A; as a verbal reflexive its lexical representation indicates that it is used whenever there is a mismatch between the two tiers in argument structure.

Reflexivity approaches assume a definition of anaphors along the lines of those in Chomsky (1986b) and Keenan (1987). R&R suggest that anaphors (of both the SE and the SELF type) are referentially defective NPs, which entails, for example, that they can not be used as demonstratives, referring to some entity in the world (though it does not entail that they must be bound variables). Binding may be viewed as the procedure assigning the content necessary for their referential interpretation. The lack of ø-features is taken to be the property responsible for their anaphoric nature. The theories deal with the interpretation of reflexives as far as their binding properties are concerned. Lidz differentiates reflexives on the basis of their being determined either by argument structure representation or by syntactic representation. The nature of INFL does not play any role in the interpretation of reflexives here. R&R suggest that if we focus on the grammatical function of anaphors, the domain of anaphor occurrence can be reduced to just two. The first (corresponding to the "local domain") is the domain of reflexivity, where a SELF anaphor obligatorily reflexivizes a predicate, and where both pronouns and

the SE- pronominal anaphors are excluded. This is the domain suggested by R&R's Condition A and Condition B. The second is the domain allowing SE anaphors to be bound (though not excluding pronouns). They argue that despite the apparently massive differences among languages, this too is reducible to a unique domain. This binding obeys the Tensed S- Constraint, that is , it is impossible across tense. This follows from the fact that SE anaphors must move to I to acquire φ-features. The full distribution of SE anaphors, then, falls under movement theory, rather than under the binding theory. With respect to the binding theory they pattern with pronouns, obeying Condition B.

2.3. Raising Reflexives in Minimalism

2.3.1. Kidwai (1995, 2000)

A close consideration of the approaches examined so far, shows that research directs us to include the components of the Standard BT, the φ-features, the nature of INFL (by the fact that INFL itself was split, Pollock (1989)'s Split-I theory) and locality conditions on overt and covert movement. However, given a profusion of potential landing sites for reflexive raising, the question arises- which functional projection (e.g.. AGR-sP, TP, AGR-oP etc.) should the reflexive target? As the X^0–reflexives are subject oriented, it can't be AGR-oP. The choice reduces to one between AGR-s_0 and Tns_0. Reflexive raising has been tied to the strength/weakness of AGR-s_0. Progovoc (1993) suggests that Russian X^0-reflexives need a 'morphologically rich AGR' projection to which they can raise to, butt languages like Hindi-Urdu provide evidence against the claim that X^0-reflexive raising is linked to verb agreement. Kidwai (1995) proposes that the difference between Chinese and Hindi-Urdu type languages reduce to the following parameter:

22. X^0-Reflexive Raising Parameter
    Intermediate adjunction to C_0 (Yes/No)
    Null case {[F]} feature is [powerful] (Yes/No)

Hindi-Urdu and Russian select the negative option in (a) and the affirmative one in (b); hence, X^0-reflexives can raise out of non-finite clauses. Chinese and Korean select the

affirmative option only for (a), hence, X°-reflexive raising is possible across all clause boundaries. Kidwai further notes that the licensing conditions for LD reflexives cannot be reduced to the role of [±Tense] as data from Russian (Avrutin 1994:719;fn.14) and Hindi-Urdu show-

23. [kazzady$_j$ student]$_i$ skazal [$_{CP}$ CHto[$_{DP}$[$_{NP}$ svoj$*_i$ drug]] xoCHet [PRO est]]
every student said that self's friend wants to-eat
'Every student$_i$ said that self's$*_i$ friend wants to eat.'

24. [har cHHaatr kahtaa hE [$_{CP}$ ki [$_{DP}$ [$_{NP}$ apnaa$*_i$ dost]] [PRO khaanaa]caahtaa hE]
every student says is that self's friend to-eat wants is

Merely the role of finite Tns_o does not provide an explanation for the impossibility of X_o reflexive raising in the above examples. Kidwai proposes to link the role of Tns_o to the role of C_o – the language specific prohibition against intermediate adjunction to C_o is voided only if a Null Case feature is checked in that C_o. The ungrammaticality in 23 and 24, she explains by suggesting that the feature [F] created by case- checking in AGR-s_o is not a Null Case feature; and hence, cannot override the language specific prohibition against adjunction to C_o in Russian and Hindi-Urdu. X°- reflexive raising to the matrix Tns_o will then violate HMC (Head Movement Constraint)[9]. So, Kidwai extends her claim that Tns_o is the landing site for Hindi-Urdu and Russian reflexives to a universal position:

25. Universally, X°- reflexives cliticize onto Tns° at LF.

2.3.2. Davison (1998)

Alice Davison (1998) also suggests that in Hindi-Urdu, the host functional projection to which the reflexive is cliticized is not AGR, but TENSE, as in Hindi-Urdu, unlike Chinese, differences of person do not effect non-local binding:

26. [harek baat par ravi$_j$-kaa apne (aap)$_{j/*i}$-ko do$\breve{\leq}$ denaa mEN$_i$ pasand

[9] HMC: Movement of a zero level category y is restricted to the position of a head x that governs the maximal projection z of y, where x theta governs or L-marks z if x is not equal to c (Chomsky 1986b).

each thing on Ravi-GEN self (self)-DAT blame give-INF. I like
nahiiN kartii
not do-IMPF
'I do not like [Ravi$_i$'s blaming self$_{j/?i}$ for everything].'

27. prasaad$_i$-ko [[[meraa$_j$ [[apnaa$_{??i/j}$ wahaaN jaanaa] ucit] nahiiN samajhnaa] Thiik]
Prasad-DAT my self's there go-INF. proper not consider-INF right
nahiin lagaa]
not strike-PF
'It did not appear right to Prasad$_i$ that I$_j$ didn't consider proper self's$_{??i/j}$ going there.'
(Subbarao, 1984:88)

But the presence of tense does seem to make a difference in long-distance or local binding possibilities. Unlike Chinese, in Hindi-Urdu the difference in verbal inflection between finite and non-finite tense is quite important. Finite clauses have independent tense reference, which is not completely context dependent: verbal inflection distinguishes past, present, future and 'contingent' (more or less conditional or irrealis). Non-finite clause may be distinguished for aspect involving completion or non-completion relative to matrix tense. Infinitive clauses need not be marked for aspect, but simply have reference to time which is dependent on the matrix time reference. long-distance readings are only possible out of embedded domains not marked for finite tense:

28. (a) siitaa$_i$-ne kahaa [$_{CP}$ ki raam$_j$-ne apnii$_{*i/j}$ kitaab pheNk dii]
Sita (SUB) said that Ram (SUB) self's book (DO) throw gave
'Sita$_i$ said that Ram$_j$ threw away self's$_{*i/j}$ book.'

(b) siitaa$_i$-ne raam$_j$-ko [$_{CP}$ PROj apnii$_{i/j}$ kitaabeN paRHne] diiN
Sita (SUB) Ram (IO) self's books (DO) to-read gave
'Sita$_i$ allowed Ram$_j$ to read self's$_{i/j}$ books.'

Comparing possible binding domains, Davison claims that TENSE/ASPECT must be

present even when AGR is not, for local binding to be possible in an embedded domain. The facts are summarized in (29) as follows:

Domain	Functional categories	Binding possibilities
Finite tense	Tense, Aspect, Agr	Local. no LD binding with higher clause
Non-finite tense	Tense,Aspect, (AGR)	Local and LD
Non-finite Aspect	Aspect, Agr	Local and LD
Small clause	Pred?	LD (*local)
Causative		*Local, only matrix subject (Mohanan 1990, Jones 1993)
NP? Picture Ns:		Local
Event nouns:		*local/LD

Besides the argument that finite tense blocks long-distance binding in Hindi-Urdu, she presents three other arguments in favour of her proposal that Tense/Aspect are the possible hosts of reflexives in Hindi-Urdu not Agr:

30. (I) Agreement is indexed independently of reflexives in both local and long-distance domains, e.g..

(a) maaN$_i$-ne baccoN$_j$-ko [PROj apne$_{i/j}$ kamre meN kitaabeN paRHne diiN
Mother-ERG children-DAT self's room in books-F-PL read-INF give-PF
'Mother$_i$ allowed the children$_j$ to read books in self's$_{i/j}$ room.'

(b) baccoNi-ne apniii/*j kitaabeN paRHiiN
children-3PL-M-ERG self's book-3PL-F read-PF-PL-F
'The children$_i$ read self's$_{i/*j}$ books.'

(II) Domains which lack co-indexing of reflexives are small clauses, causative complements and Nps whose primary feature is that they lack Tense/Aspect, the absence of Agr is a consequence of the lack of Tense/Aspect, e.g..

(a) small clause with no tense or aspect:

raam$_i$ [mohan-ko apne aap$_{i/*j}$-se _armindaa] samajhtaa hE

Ram Mohan-DAT self's self-from ashamed consider-IMPF be-pres

'Ram$_i$ regards/sees Mohan$_j$ as ashamed of himself$_{i/*j}$.'

(b) Noun Phrase:

*[raam$_i$-ka apne$_{i/*j}$-ko/ke liye dhokhaa] kaanuun-ke Xilaaf nahiiN hE

Ram-GEN self-DAT for sake deception law-GEN against not is

'Ram's deception of himself is not against law.'

(III) There is one clausal domain which lacks Agr but has an aspectual marker on the verb, the conjunctive participle –kar 'perfective'. Local binding is possible for both simplex and XP-reflexives.

(a) [PRO$_{i/*j}$ pEhle apne$_{i/*j}$ (aap)-ko dekhkar] tab mujhe _ik_aa do

first self's (self)-DAT see-PRT then I-DAT eduaction give-IMPF

'PRO$_{i/*j}$ having first looked at yourself, then e$_i$ give me advice.'

She suggests that languages may differ in which functional projection is a possible reflexive host. But it raises a very important question : what properties of either reflexives or functional projections motivate movement and in what way can functional projections differ? Davison suggests that reflexives in Hindi-Urdu have some inherent semantic content. 'apne' is etymologically derived from Sanskrit 'aatman'-soul and is related to 'apnaa'-self control and 'aapas'-mutually. Reflexives (including 'khud' and 'swayam') require animate antecedents (with some exceptions), and this feature is not surprising if the core meaning is 'soul/self'.

Another lexical/semantic feature is that it is an referring expression, which must be interpreted by tense, which contributes two components to the identification of a dependant referring expression. The first is that tense is deictic to a time referent, placing the sentence meaning and reference within a model (Partti, 1984 ; Kamp and Reyle,

1993). Secondly, tense enforces the Extended Projection Principle (EPP) requirement for a syntactic subject, and this subject, in a Spec –head relationship to tense, is o-indexed with the reflexive, adjoined to tense. So, Davison suggests that the movement of a reflexive is motivated by a property of the reflexive itself, not the TENSE; the reflexive moves to be identified, otherwise it is not interpretable LF. After the first movement to Tense, which has to move ultimately to a finite matrix tense for identification

2.3.3. Richards (1996)

Richards (1996) deals with the problems of optionality in long distance anaphora. He foregrounds the φ-feature composition issue and assimilates into the checking theory. Within the morphosyntactic system, he allows the 'underspecified' features to interface with the morphological (φ- features). . He claims that anaphoric binding is a particular application of a general operation of feature binding. Richards proposes his theory based on Chomsky's (1995) notion of feature movement and tries to solve the problems related with long distance reflexives.

Chomsky (1995) suggests that in some languages only features need to move and in some, features along with the lexical items move (PF convergence forces anything beyond feature to raise.). Shortest move is taken to apply to the feature movement. For Richards, features can sometimes be base generated 'underspecified' for their values. According to his theory, a feature chain C entering into a checking relation with element X is subject to the following restrictions: (a) *Accuracy* ---- C must be associated with a feature that accurately reflects the features on X, and
(b) *Completeness* ---- C must be associated with a fully specified set of features, where *Association* is defined as: For any feature-chain C headed by the feature F and occupying the heads (H_1, H_2 ....) for any feature G, C is associated with G iff (i) F = G or , (ii) some feature chain occupying some elements of (H1, H2 ....) is associated with G. One this to be noted is that this association is transitive.

The theory makes two claims about anaphors, (i) Anaphors have underspecified N

features, and (ii) These features are interpretable, and hence cannot be deleted after checking (Chomsky 1995). Richards further assumes that a principle of structural economy demands that underspecified features be used to express a given proposition whenever possible (since pronouns don't have underspecified features).

Lets see how this Feature–Movement theory works. If a feature is base-generated underspecified, it has to move to another head with fully specified features to fulfil the completeness requirement. If there is a structure with two underspecified features, then, there are two possible ways to fulfil the completeness requirement. Either both features can move to the specified head or one feature can move to head and the other moves to that feature (the association being transitive).

X	Y	Z
a	( )	( )

If Z moves first, then Y has to move to X. If Y moves first, then Z has to move to Y only (respecting Shortest Move). e. g.

44. Jón heldur að Haraldur se að skrifa bókina sína í herberginu sínu
    Jon thinks that Harald is writing book self's in room self's
    'John$_i$ thinks that Harald$_j$ is writing his$_j$ book in his$_i$ room.

The sentence is base generated as-

45. Jón T° heldur að Haraldur T° se að skrifa bókina sína í herberginu sínu
    N (x) N ( ) N ( ) N ( )

First, the N-feature of 'herberginu' move to the highest T° (having fully specified features) triggering co-reference between 'Jón' and 'sínu'. Then, the features of the lower T° move to matrix T° and finally, N-features of 'bókina' move to the lower T° which has already acquired fully specified features (the association being transitive).

Richards also explains the 'blocking effect' in Chinese where all the subjects intervening

between the anaphor and its binder must agree with the binder in person.e.g..

46. zhangsan renwei Lisi hai-le *ziji*
    zhangsan$_i$ thinks Lisi hurt self$_i$
47. Zhangsan T^o renwei Lisi T^o hai-le *ziji*
    N (3) N ( ) N ( )
    g z ----------m
    z----------m

The chain with the two T^o heads is associated with the 3rd person on the higher T^o and can enter a well-formed checking relation with the 3rd person lower subject 'Lisi'. Accuracy would not be satisfied, and it would lead to ungrammaticality if the lower subject were not 3rd person, e.g..

48.* zhangsan renwe$_i$ wo hai-le *ziji*
    zhangsan thinks I hurt self
    '* Zhangsan$_i$ thinks I hurt self$_i$.'

So any T^o head intervening between the anaphor and the T^o binding the anaphor's features would have to be base-generated with underspecified person-features, so that person-feature movement could skip them. Richards argues that the 'blocking effect' is not observed in Icelandic because long distance anaphor are anaphoric for person in Chinese but not in Icelandic.

Richards' theory also explains the difference in the choice of permissible derivations in languages like Chinese and Japanese, e.g..

49. Taroo-wa [Hanako-ga zibun-no heya-de zibun-no *(Japanese)*
    Taroo -Top Hanako- NOM self- GEN room-in self –GEN
    sigoto-o site-ita to] itta
    work-ACC do-ing that said

It can have following readings-

49.(a) Taro$_i$ said that Hanako$_j$ was doing his$_i$ work in his$_i$ room.
(b) Taro$_i$ said that Hanako$_j$ was doing her$_j$ work in her$_j$ room.

but not

(c) * Taro$_i$ said that Hanako$_j$ was doing his$_i$ work in her$_j$ room
(d)* Taro$_i$ said that Hanako$_j$ was doing her$_j$ work in his$_i$ room

Similar restrictions exist in Chinese also. The explanation Richards provides is as follows:

The sentence (d) has two long distance anaphors having a choice between two possible T_o heads has binders.

T^o	T^o	θ	θ	
	N (x)	N ( )	N ( )	N ( )

The four possible derivations are:

i. The features of both the anaphors move to the matrix T^o, then the lower T^o moves to the matrix T^o
ii. The lower T^o moves to the higher T^o, then, the anaphors move to the lower T^o.
iii. The higher anaphor is moved to the higher T^o, then, the lower T^o moves to the higher T^o. Finally, the second anaphor moves to the lower T^o (which has now fully specified features).
iv. The lower anaphor moves to the higher T^o, then the T^o moves to the higher T^o. Finally, the higher anaphor moves to the lower T^o,

(i) and (ii) are permissible derivations in Chinese (iii) permissible in Icelandic but not in Chinese. So, languages like Chinese prefer derivations where binding of anaphor and T^o heads occur in separate blocks.

This analysis looks at the larger domain unlike earlier approaches as Richards' locality condition applies at the interface only. The features are both +interpretable and underspecified, so its interpretability does not pose any problem as it is with Cole, Hermon & Sung (1990). But Richards does not provide any reason for the languages to choose between the possible derivations. Though he accepts that these restrictions should be explained through some other principle and because of this, his analysis is somewhat unsatisfying, yet, it is indeed a step further to explore the remaining problems in a more satisfying way.

2.4 Directions To A New Analysis

A critical examination of the earlier approaches reviewed so far shows that the existing research on the topic exploits either all, or a subset of, four constructs in their analyses, i) φ-feature composition of reflexives, ii) locality of domain, iii) nature of INFL. and checking relations and, iv) argument structure configurations.
In this section, I evaluate the approaches reviewed with respect to these constructs and discuss the problems posed.

The anaphoric nature of the reflexives is considered to be due to lack of a full φ-set in all the approaches. Only some of the approaches, however, consider raising of reflexives to be the entailment of this lack of a full φ-set. Chomsky (1981) and (1986 b) implement the effects of reflexive raising by transferring its burden to the extension of the binding domain itself. It is only the later approaches, Cole, Hermon & Sung (1990), Cole & Sung (1994), Richards (1996), Davison (1998), Kidwai (2000) that tie up the impoverished φ-set with the movement of reflexives.

Let us consider the following examples in Hindi-Urdu –

53. [mohan$_i$ kii apne$_{i/j}$ baare meN raay] vinay$_j$ ko acchii nahiiN lagii
Mohan of self's about opinion Vinay DAT. good not seem-pst.
'Mohan$_i$ didn't like [Vinay's$_j$ opinion about himself$_{i/j}$.]

Both local and long-distance binding is possible with NPs, here.
Chomsky (1986 b) defines a binding domain for a reflexive to be the smallest CFC where it put potentially be bound. And as a reflexive can be bound within that domain, the reflexive in (53) should be bound within the NP. For NPs, Alice Davison has argued that NPs lack a functional head as a host for the reflexive. So, it can be bound only outside. This also doesn't explain the binding in (53).

In adverbial clauses also,

54. [vinay$_j$ ke apne$_{i/j}$ bhaaii ko thappaR maarte hii] raam$_i$ naaraaz ho gayaa

Vinay$_j$ of self's$_{i/j}$ brother-DAT slap beat-IMPF. EMPF. Ram$_i$, angry become go-Pf.

'Ram$_i$ got angry as Vinay$_j$ slapped self's$_{i/j}$ brother'.

In spite of local subject being present, 'self' refers to both. PP adjuncts also allow both local and long distance binding contrary to Kidwai (2000), e.g..

55.nuur$_i$-ne amiinaa$_j$-ko [apne$_{i/j}$ kamre-meN] bhej diyaa

Nur$_i$ Amina$_j$s-DAT self's$_{i/j}$ room in send gave

I O

'Nur$_i$ sent Amina$_j$ into self's$_{i/j}$ room'.

Her proposal that IO in the broadly L-related position as the status of an operator, since adjoined position are always A-bar position and IOs are, therefore, amenable to reconstruction fails to account for my data. In causatives,

56. (a) raam$_i$-ne mohan$_j$-se apnaa$_{i/j}$ kamraa saaf karwaayaa.

Ram$_i$-ERG Mohan$_j$-INSTR. self's$_{i/j}$ room clean do-cause2-Pst.

'Ram$_i$ made Mohan$_j$ clean self's$_{i/j}$ room.'

(b) raam$_i$-ne siitaa$_j$-ko apnii$_{i/j}$ kitaab dilwaaii.

Ram$_i$-ERG Sita$_j$-DAT self's$_{i/j}$ book give-cause2-Pst.

' Ram$_i$ made (somebody) give Sita$_j$ self's$_{i/j}$ book.'

According to Mohanan (1990) and Jones (1993), causative constructions allow only local biding i.e. only matrix subject is the binder. Alice Davison also argues that only the matrix subject can be the binder as in causative complements functional projection isn't

available. But it does not account for the above data.

In conjunctive participle construction, e.g..

57. [jOn ko apne baccoN se pyaar karte dekhkar] merii$_i$ ko acchaa lagaa.

John$_j$ DAT self's$_{i/j}$ children INSTR. love doing see-PRT Mary$_i$ DAT good seem-Pst.

'Having seen John$_j$ loving self's$_{i/j}$ children Mary$_i$ felt good.'

Davison (1998) argues that -kar clause lacks TENSE, ASPECT but has AGR , and therefore local binding is possible.

Participials too allow long distance binding,

58. raam$_i$ –ne siitaa$_j$-ko apnii$_{i/j}$ baRaaii karte hue sunaa.
Ram - ERG Sita - DAT self's praise do - IMPF be-pf. hear-pst.
'Ram$_i$ heard Sita$_j$ doing self's$_{i/j}$ praise.'

All the above examples don't show any difference after scrambling. Contrary to Mahajan's (1990) conclusion, preposed objects, here, don't make any difference in the binding possibilities of reflexive binding. His another conclusion that a direct object left scrambled over an indirect object containing a reflexive doesn't explain my data. Native speakers don't accept Mahajan's judgment, e.g..

59. raam$_i$-ne ʃer$_j$ apne$_i$ baccoN ko dikhaayaa
Ram$_i$-ERG Tiger self's children-DAT show-pst
(SUB) DO I O
'Ram$_i$ showed tiger$_j$ to self's$_i$ children.'

60. raam$_i$-ne apne$_i$ baccoN ko ʃer$_j$ dikhaayaa.

Ram_i-ERG	self's	children-DAT	tiger	show-pst.
SUB	I O		DO	

'Ram_i showed $tiger_j$ to self's$_i$ children.'

In (59) and (60) the binding possibility for the reflexive remains the same. But for Mahajan, in (59), the reflexive can have the subject and the direct object both as antecedents.

Mahajan's analysis regarding reconstruction also fails to explain my data, contrary to Mahajan's judgments. e.g..

61.	$raam_i$-ne	$siitaa_j$-ko	$apnii_i$	kitaab	waapas	dii.
	Ram (SUB)	Sita (IO)	self's	book (DO)	return	gave.

'Ram_i returned self's$_i$ book to $Sita_j$.

62.	$apnii_i$	kitaab	$raam_i$-ne	$siitaa_j$-ko	waapas	dii.
	Self's$_i$	book (DO)	Ram_i (SUB)	$Sita_j$ (IO)	return	gave.

'Ram_i returned self's$_i$ book to $Sita_j$.

In (61) Mahajan wrongly predicts that the reflexive can be bound by both the subject and the IO.

A thorough examination of the Hindi-Urdu data points to the need of a new analysis which could properly account for it. The relevant issues are, 1) argument structure, 2) tense, 3) locality of domain, and 4) φ-features.

The facts concerning object and subject control predicates as described in Kidwai (1995; 2000) provide evidence that long distance binding of X^o –reflexives in Hindi-Urdu does depend on an object controlled compliment, since only in such object control predicate constructions, the X^o-reflexive is ambiguous in reference. e.g..

50. $raam_i$-ne	$siitaa_j$-ko[PRO_j	$apnii_{i/j}$	gaarRii	laane-ko	kahaa
Ram_i	$Sita_j$	self's$_{i/j}$	car	to- bring-DAT.	said

'Ram$_i$ told Sita$_j$ to bring self's$_{i/j}$ car'.

51. raam$_i$-ne siitaa$_j$-se [apnii$_{i/*j}$ gaaRii laane-kaa] vaadaa kiyaa
Ram$_i$ Sita$_j$ self's$_{i/*j}$ car to-bring-GEN promise did
'Ram$_i$ promised Sita$_j$ to bring self's$_{i/*j}$ car'.

The importance of argument structure in reflexive binding can't be neglected, as it is a cost too dear to pay. R&R (1993) have the notion of semantic prediction besides the notion of syntactic prediction.They define the 'Semantic Predicate' formed of P as P and all its arguments at the semantic level. Their Condition A applies only to syntactic predicates where as Condition B applies only to semantic predicates. The binding condition, here, contain no reference to either configurational or thematic hierarchy. The sensitivity to c-command, or other hierarchical restrictions has been reduced to R-relations. HPSG and LFG also reject that binding theory in configurationally sensitive. In both the frameworks, it is argued that the c-command restriction on the antecedent anaphor relation should be abandoned.

In Jackendoff (1990, 1992) it is argued that the relation between an anaphor and its antecedent should not be treated as a coindexation relation in syntactic structure. He tries to show that the Syntactic Binding Theory can be just as well formulated at conceptual structure (CS), thus replacing the notion c-command with the notion 'CS-superiority'. This notion defined over CS as defined by Jackendoff, i.e. a hierarchically structured semantic representation. Jackendoff concludes, "when the syntax-semantics mapping is straightforward, asymmetrical c-command more or less mimics the effects of CS-superiority" CS is structured in such a way that the main effects of c-command are mirrored in CS.

Breaking down of complimentarity in languages as discussed in the Reflexivity section also illuminates the relevance of argument structure in reflexive binding. R& R argue that the reflexives are used to mark a relation between elements within the same argument structure, and that condition A (i.e. A reflexive marked predicate is reflexive) express only the (local) coindexing relation between co-arguments of a lexical head. Though R&R explain the complimetarity facts related to this, in language like Hindi-

Urdu, R&R's theory is at loss to explain e.g.

52. raam$_i$ apne$_i$/*uske$_i$ baare meN jok pasand kartaa hE.
Ram$_i$ self's$_i$ *his$_j$ about joke like does is.
'Ram likes jokes about himself/him.'

The causative constructions with respect to argument structure are elaborately dealt with in the next chapter.

The presence of tense in languages like Hindi-Urdu does make a difference in long distance or local binding of reflexives. It seems to be the relevant head that licenses X^0-reflexives (Davison 1995). As Kidwai (1995) points out further that only X^0-reflexives in non-finite clauses can take long distance antecedents:

53. (a) siitaa-ne kahaa [$_{CP}$ ki [$_{TP}$ raam-ne [$_{Tns}$ apnii$_j$-Tns] [$_{AGR\text{-}OP}$ [t$_j$ kitaab] pheNk dii]]]

(b) * [$_{CP}$[$_{TP}$ siitaa$_i$-ne [$_{Tns}$ apnii$_j$-Tns] kahaa]] [$_{CP}$ ki [$_{TP}$ raam-ne [t$_j$ kitaab] [pheNk dii]]]]

54. (a) [$_{TP}$ siitaa$_i$-ne raam$_j$-ko [$_{CP}$ [$_{TP}$ PRO [$_{Tns}$ apniij-Tns] [$_{AGROP}$ [t$_j$ kiitaabeN] paRHne]]] diiN

(b) [$_{TP}$ siitaa$_i$-ne [$_{Tns}$ apnii$_j$-Tns] [$_{CP}$ [$_{TP}$ PRO [t$_j$ kitaabeN paRHne diiN]

The other important issue is to make certain the binding domain. Where it has to be recognised and moreover, whether it needs to be parameterised or not. The analysis certainly has to account for the cross linguistic variations. As the anaphoric nature of reflexives is due to the lack of a full φ-set, it is another major aspect.

On the whole, reflexive interpretation is contingent upon the licensing conditions for reflexive. The new analysis tries to explore these licensing conditions and its explanation.

CHAPTER III

REFLEXIVE LICENSING IN HINDI-URDU

This chapter presents the survey results and the problems raised, based on which my analysis is put forward. In the second chapter, the theoretical and the empirical problems, which the earlier approaches could not resolve, were identified. Here, those Hindi-Urdu facts are discussed and analyzed. Section 3.1 is devoted to the survey results and the core sentences are presented. Section 3.2 analyses Hindi-Urdu causative facts using Manning (1994) and Pylkkänen (1999). Chomsky's recent proposals in MI (2000) and Derivation by Phase (2001) is briefly summarized in section 3.3 on which rest of my analysis is based. With Section 3.4, the chapter ends providing a thorough analysis of the Hindi-Urdu reflexive binding facts.

3.1 Survey findings

Thirty five native speakers of Hindi-Urdu were sampled, employing a written questionnaire method.The speakers were from following age- groups:
20-30 yrs.,30-50 yrs., 50-70 yrs.(10 speakers from each group), and five speakers from the age group of 70 plus. The significant results along with the problems raised are summarized as below-

i) All speakers disallow non subject antecedents in simplex clauses.e.g.,

(1) raam$_i$-ne sitaa$_j$-ko apnii$_{i/*j}$ kitaab di
Ram-ERG. Sita-DAT. self's book gave
'Ram$_i$ gave Sita$_j$ self's$_{i/*j}$ book.'

ii) In verbal non-finite clauses, where the reflexive is embedded in a participial adjunct, 63% speakers allow the matrix subject or the embedded subject to be the antecedent. e.g.,

(2) raam$_i$-ne siitaa$_j$-ko apnii$_{i/j}$ baRaaii karte hue sunaa
Ram-ERG Sita-DAT self's praise do-IMPF be-PF hear-pst.
'Ram$_i$ heard Sita$_j$ doing self's$_{i/j}$ praise'.

63% speakers allow both 'Ram' and 'Sita' to be the possible antecedents for the reflexive 'apnii'. 33% allow only 'Sita' and 4% allow only 'Ram'.

iii) In ECV (Explicator Compound Verb) constructions or light verb constructions, where the reflexive is embedded in a PP, 77% speakers allow the matrix subject or the embedded subject to be the antecedent. e.g.,

(3) nuur$_i$-ne amiinaa$_j$-ko apne$_{i/j}$ kamre meN bhej diyaa
Noor-ERG Amina-DAT self's room into send give-pst
'Noor$_i$ sent Amina$_j$ into self's$_{i/j}$ room'.

77% speakers allow both 'Noor' and 'Amina' to be the possible antecedents for the reflexive 'apne'. 11.5% allow only 'Noor' and the rest 11.5% allow only 'Amina'.

iv) In participials, where the reflexive is embedded in a PP, 81% of all the speakers allow the matrix subject or the embedded subject to be the antecedent.e.g.,

4) raam$_i$-ne siitaa$_j$-ko apne$_{i/j}$ ghar meN ghuste hue dekhaa
Ram-ERG Sita-DAT self's house into enter-IMPF be-PF see-pst
'Ram$_i$ saw Sita$_j$ entering into self's$_{i/j}$ house'.

81% speakers allow both 'Ram' and 'Sita' as possible antecedents for the reflexive 'apne'. 15% allow only 'Sita' and 4% allow only 'Ram'.

v) In nominalized non-finite clauses where the reflexive is embedded, 51% of all the speakers allow matrix subject or the embedded subject to be the antecedent.e.g.,

(5) siitaa$_i$-ko raam$_j$-ka apne$_{i/j}$ baccoN-ko sar par caRHaanaa acchaa

Ram-GEN self's children-DAT head on lifting up Sita-DAT good
nahiin lagaa
not like-pst

'Sita$_i$ didn't like Ram's$_j$ spoiling self's$_{i/j}$ children'.

51% speakers allow both 'Ram' and 'Sita' as possible antecedents for the reflexive 'apne' whereas 49% allow only 'Ram'.

vi) In sentences where the reflexive is embedded in a participial adjunct with an adverbial clause, 45.% speakers allow the matrix subject or the embedded subject to be the antcedent.e.g.,

(6) vinay$_j$-ke apne$_{i/j}$ bhaaii-ko thappaR maarte hii raam$_i$
Vinay-GEN self's brother-DAT slap beat-IMPF EMPH Ram
naaraaz ho gayaa
angry become go-pst

'Ram$_i$ got angry as Vinay$_j$ slapped self's$_{i/j}$ brother'.

45.5% speakers allow both 'Ram' and 'Vinay' as possible antecedents for the reflexive 'apne'. Another 45.5% allow only 'Vinay' and the rest 9% allow only 'Ram'.

vii) In causative constructions, more than 60% of the speakers allow the matrix subject or the embedded subject to be the antecedent. e.g.,

(7) raajaa$_i$-ne mantrii$_j$-se apne$_{i/j}$ mahal meN jaane-ka
king-ERG minister-INSTR. self's palace into go-INF-GEN
vaadaa karwaayaa
promise do-CAUSE 2-pst.

'The king$_i$ made the minister$_j$ promise to go into self's$_{i/j}$ palace'.

61% speakers allow both 'king' and the 'minister' as possible antecedents, whereas 23% allow only 'minister' and 16% allow only 'king'.

In all the examples above, the common point to be noted is that native speakers allow the matrix subject or the embedded subject to be the antecedent except in simplex clauses.

The next few sections examine these in detail, beginning with causatives.

3.2. Causatives

For reflexive interpretation in causatives, I will adapt Manning (1994) and Pylkkänen (1999) analysis of causatives.

3.2.1 Manning (1994)

In the literature, the locus of the binding theory configuration or argument structure, has been a subject of much debate. While LFG totally rejects the configurational account of binding, in HPSG (Pollard & Sag), binding possibilities are (largely) not configurationally determined, but they reflect an obliqueness hierarchy on surface grammatical relations which licenses subjects to bind objects. Chomsky (1986) relies purely on configurational notions for the relationship between an anaphor and its antecedent, but uses concepts of selection in the definition of the binding domain of an anaphor.

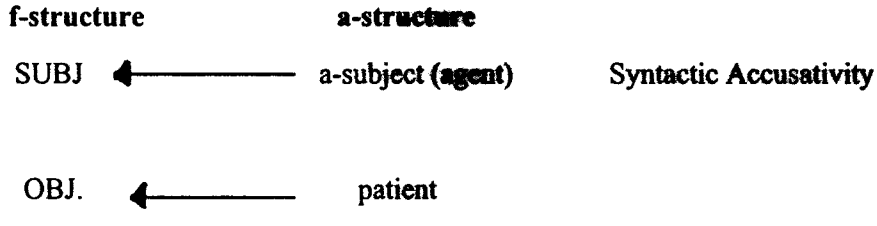
Manning (1994) argues that syntax should make a clear distinction between two levels: a level of surface grammatical relations and a level of syntactic argument structure, both of which have separate prominence rankings. This provides two notions of subjecthood: grammatical subject (gr-subject) and argument structure subject (a-subject). However, not all of syntax is structured around the hierarchy of grammatical relations. He proposes that in all languages, there is a principled division between purely syntactic processes, such as constraints on relativization, topicalization, questioning, specificity or wide scope, omission in coordination, etc., which are universally sensitive to the hierarchy of grammatical relations, and more semantic properties of binding, control and imperative addressee, which are sensitive to prominence at a level of argument structure.

Manning suggests that we need a class of all arguments that are first on some level of argument structure- he terms these 'a-subjects'. All logical subjects are a-subjects, but

the compound argument structures that result from derivational operations, like passive and causative, yield additional a-subjects. Two principles govern the obliqueness ordering of argument within a single level of argument structure. First, direct arguments (terms) precede obliques (Hellen, 1988). Second, within each grouping, arguments are ordered according to thematic obliqueness. Then, agents outrank patients.

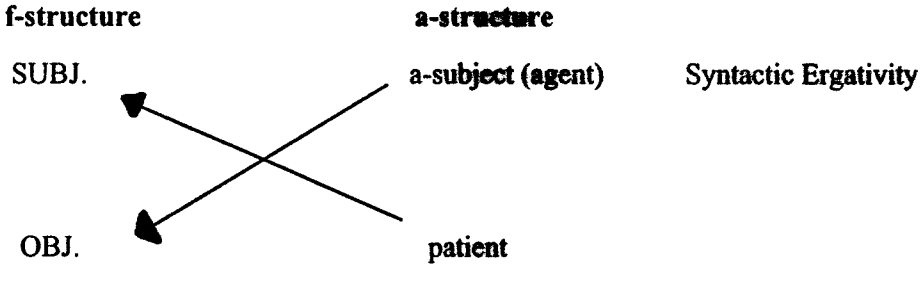
Manning's conception of argument structure is as a syntactic level as in Bresnan & Zaenan (1990), not as a purely semantic level. The basic argument structure of a verb is an ordered list of the verb's arguments, with terms set off from obliques by a vertical bar. He observes that crosslinguistically, there are three possibilities for the 'linking' between argument structure and grammatical relations. Many languages are syntactically accusative, always using the following mapping in which the two levels are aligned:

7.



Ergative languages use an inverse mapping:

8.



Western Austronesian languages allow great flexibility, in which argument at argument structure becomes the subject. These languages show the independence of binding from surface structure command relationships. For example, Toba Batak distinguishes between active voice (mang-) and objective voice (di-) forms of verbs.e.g.

9.(a). Mang-ida si Ria si Torus *(Toba Batak)*

AV- see PM Ria PM Torus

'Torus sees/saw Ria'.

(b). Di-ida si Torus si Ria

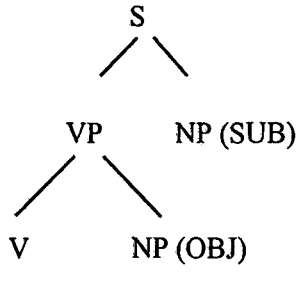
OV-see PM Torus PM Ria

'Torus sees/saw Ria'.

The active voice in (a) has the logical subject of the clause appear in the final subject position, while the objective voice in (b) has the logical object appear in the final subject position. Thus, these can't be viewed as a passive or an antipassive.

In these languages, the NP which follows the verb in transitive clauses is analysed as complement. Various arguments of the verb are allowed to become the subject without passivization or antipassivization. Both the agent and the patient of a basic transitive verb are terms in all 'voices'. Manning argues that the external NP in these languages should be regarded as a subject.

10.



However, binding possibilities are insensitive to this structure. Reflexivization examples show that an agent can bind a theme (and not vice-versa) regardless of the verbal voice of the sentence .e.g.

11.(a) [$_{VP}$ Mang-ida diri-na] si John

AV-saw self-his PM John

'John$_i$ saw himself$_i$'.

(b) * Mang-ida si John diri-na
AV-saw PM John self-his
* 'Himself$_i$ saw John$_i$'.

(c) * Di-ida diri-na si John
OV-saw self-his PM John
* 'Himself$_i$ saw John$_i$'.

(d) [$_{VP}$ Di-ida si John] diri-na
OV-saw PM John self-his
'John$_i$ saw himself$_i$'.

Manning further argues that the existence of syntactically ergative languages (languages which show a coding scheme where the patient like argument of a transitive verb is coded like the single argument of an intransitive verb and differently from the agent like argument of a transitive verb) prove that binding in such languages is not defined on surface phrase structure or argument structure or thematic relations. e.g.

12.(a) ataata-ni Junna-p tatig (i-v)-a –a *(Inuit)*
father-4SG.SG Junna-ERG trust-IND-TR-3SG.3SG
'Junna$_i$ trusts his$_i$ father.'

(b) Arnaq iglu-mi-nut tikit-tuq
woman.ABS house-4SG-DAT. arrive-PART.INTR.3SG
'The woman$_i$ arrived at her$_i$ house.'

(c) *Anaana-mi Piita nagligi-janga
mother-4SG.ERG Piita.ABS love-3SG.3SG
'His$_i$ mother loves Piita$_i$.'

Manning observes that passives also provide evidence for the independence of binding from surface grammatical relations. He argues that if binding theory were defined over surface grammatical relations, then only the subject of the passive should be a possible binder of subject-oriented reflexives. This prediction is incorrect in many languages like Russian, Inuit and Sanskrit.e.g.

13.(a) Boris mne rassakazal anekdot o sebe *(Russian)*
Boris.NOM me.DAT told joke about self
'Boris$_i$ told me a joke about himself$_i$'.

(b) Ėta kniga byla kuplena Borisom dija sebja
this book.NOM was bought Boris.INSTR. for self
'This book was bought by Boris$_i$ for himself$_i$'.

While in (13a), the reflexive *sebe* must be bound by the subject (which is the a-subject), in the passive (13b), the antecedent can be either the surface subject or the agent argument (i.e., the logical subject).

Manning suggests a representation for passives where both the surface subject and the logical subject qualify as a-subjects. However, such an analysis does not require multiple strata of grammatical relations. The derivational morphology component builds complex nested argument structures (cf. Grimshaw (1990: 167- 173)). Passive agents retain a-subject properties: they remain a possible controller of reflexives, despite being an oblique grammatical relation in a subordinate structural position. Manning proposes that passive modifies the argument structure of the basic root, creating the nested argument structure.

Causatives, too, provide evidence for locality binding constraints on argument structure rathe than surface grammatical relations. While on surface, many causatives seem to be a single clause, with binding, these structures are underlyingly biclausal. e.g.

14.(a). Kaali-p Pavia mmi-nit angi-nir-u-sinnaa-nngin-nirar-p-a-a. *(Inuit)*

Kaali-ERG Pavia-ABS self-ABL big-CMP-BE-can-NEG-say-IND-TR-3SG.3SG.

'Kaali$_i$ said that Pavia$_j$ couldn't be taller than self$_{i/j}$.'

(b). Juuna-p Kaali immi-nik uqaluttuup-p-a-a
Juuna-ERG Kaali.ABS self-INSTR tell-IND-TR-3SG.3SG.
'Juuna$_i$ told Kaali$_j$ about self$_{i/*j}$'.

15. Aalu-p Pavia-mut Suulut savim-mi-nik kapi-qqu-aa
Aalu-ERG Pavia-TERM Suulut.ABS knife-4SG-MOD stab-ask-IND.3SG.3SG.

'Aalu$_i$ told Pavia$_j$ to stab Suulut$_k$ with his$_{i/j/*k}$'

Inuit reflexives are 'subject' oriented, but both the causer and the causee behave as 'subjects' for the purposes of anteceding reflexives. Furthermore, the causee retains the ability to bind what have been referred to as subject-oriented reflexives.

Mohanan (1988) and subsequent work (Alsina 1993, Andrews and Manning 1993, Andrews 1996, Butt 1993) argue that this conflicting evidence can be accounted for by a mismatch between f-structure and a-structure: these verbs will have grammatical relations much like any other predicate, but the causative verb will have a nested argument structure, so that both the causer and the causee will be a-subjects. In languages such as Inuit and Turkish, when a transitive stem is causativised, it is the lower object that becomes the surface object, while the causee is expressed via some more oblique role. Moreover, it is the lower object that is accessible to passivisation.

Manning informally outlines an argument-structure-based binding theory:

16 (a). Possibilities for antecedence depend on domination relations and obliqueness, both defined on argument structure.

(b). Principle A. A locally a-commanded anaphor must be locally a-bound.

(c). Principle B. A personal pronoun must be locally a-free.

17. An argument α a-commands an argument β iff α does not include β and every a-structure that contains all instances of α contains all instances of β[1].

To account for the languages where reflexives cannot be bound by just an oblique NP, but rather their antecedent is restricted to 'subjects', Manning suggests that in these languages, reflexives must be bound by the first element on some argument structure list. He formalizes this notion with the definition and principle as follows:

18.(a) An **a-subject** is an entity that is at least oblique at some level of a-structure.

(b) A-subject principle: Anaphors must be a-subject bound (in some languages).

His second parametrization of the binding theory is that while classical reflexives are clause bounded, many languages allow long distance binding. There the reflexives can be bound by any a-commanding a-subject. In some languages like Inuit, binding is sensitive to the term/non-term distinction also (Hellen 1988).

It cannot be argued that all constraints on binding can be reduced to argument structure configurations. Assuming Arka & Wechsler (1996), who document a role for linear order in Balinese, Manning suggests that there are linear precedence constraints on binding which have no relation to argument structure. Following the insights of Hellen (1988), Manning notes that an argument structure based account allows one to maintain the strengths of a thematic approach to binding, avoiding its problems. The Hindi-Urdu binding facts regarding Object Control Vs Subject Control also provide evidence that binding domain is sensitive to argument structure,e.g.

19 (a). raam$_i$-ne siitaa$_j$-ko [PROj apnii$_{i/j}$ gaaRii laane-ko] kahaa

Ram-ERG Sita-DAT self's car bring-to say-pst

'Ram$_i$ asked Sita$_j$ to bring self's$_{i/j}$ car'.

Vs

(b) raam$_i$-ne siitaa$_j$-se [PRO$_i$ apnii$_{i/*j}$ gaaRii laane-ka] vaadaa kiyaa

[1] This allows for cases where β appears in multiple places in the argument structure, due to the fusion that occurs in passives and causatives. In general, when arguments are unified, it seems that only the highest

Ram-ERG Sita-INSTR. self's car bring-GEN promise do-pst

'Ram_i promised $Sita_j$ to bring self's$_{i/*j}$ car'.

(Kidwai 2000)

It is important to note here that Manning creates a new term 'a-subject' which is not defined in anything but argument structure terms. The proper minimalist understanding would require this to be determined by hierarchy/configuration. In the next section I discuss Pylkkänen's analysis of causatives and then, extend it to Hindi-Urdu causatives, also taking Manning's notion of 'a-subject' into consideration.

3.2.2 Pylkkänen (1999)

Pylkkänen suggests that important differences between so-called "lexical" and "productive"

causatives can be attributed to differences in the syntactic realization of a limited set of universal meanings. Consider the following examples,

20.(a)John froze the meat. *(English)*

(b) Jussi jäädy-tti lina-n *(Finnish)*

Jussi-NOM freeze-CAUSE-PAST meat-ACC.

'Jussi froze the meat.'

© Taroo-ga niku-o koor-ase-ta *(Japanese)*

Taro-NOM. meat-ACC. freeze-CAUSE-PAST

'Taro froze the meat.'

---

instance of a group of unified items counts as visible. A-bound and a-free are then defined in the obvious way.

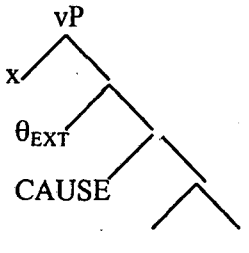
The causative forms in (a)-(c) have essentially the same syntactic and semantic properties, but their distribution varies. In English, only unaccusatives causativize while in Japanese, agentive verbs also causativize.

To account for this kind of cross linguistic variation, Levin and Rappoport (1995) propose that the English causative alternation takes place in the lexicon while the Finnish and the Japanese type of causativization happens in the syntax. Hale and Keyser (1993,1998) accords the term 'transitivization' to explain the English examples, which takes place in I-syntax, while the Finnish and the Japanese data are examples of causativization which takes place in S-syntax. Though these approaches explain the variation, they fail to explain the same syntactic and semantic properties.

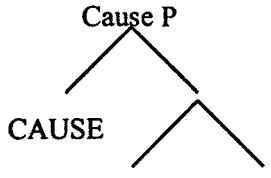
Pylkkänen tries to account for the semantic unification which exists in all the languages. She proposes that the interpretation of CAUSE is the same in all the languages and the differences lie in whether the causative meaning is expressed in the same syntactic head that introduces the external argument or both are in two separate syntactic head. In other words, she decomposes causation in order to treat Finnish, Japanese and English causatives as the syntactic expression of the same universal causative meaning.

Pylkkänen proposes two kinds of causatives structurally:

(i) Causative with an external argument:



(ii) Causative without an external argument:



In (i), θ_{EXT} is merged above the CAUSE and relates the external argument[2] to the causing event. The external argument combines with its syntactic complement by Event Identification, i.e., a conjunction operation that allows to relate a participant to the event described by the complement of v.

Pylkkänen provides evidences from Japanese adversity causatives and Finnish desiderative causatives to show that CAUSE indeed, can be independent of θ_{EXT}.

In Japanese, a causativized unaccusative is ambiguous between a regular causative interpretation and an interpretation where the nominative argument is not interpreted as an agent of the causing event, but as an effected argument of the caused event (see Oehrle and Nishio 1981, Kuroda, 1993).

22. Taroo-ga musuko-o korob-ase-ta
    Taro-NOM son-ACC. fall down-CAUSE-PAST
    (a)'Taro caused his son to fall down.'
    (b)'Taro was affected by his son falling down.'
    An important fact is that a similar meaning to (b) can be attained by the so-called adversity passive also.

23. Taroo-ge musuko-ni korob-are-ta
    Taro-NOM son-DAT fall down-PASS-PAST
    'Taro was adversely affected by his son falling down.'

Pylkkänen argues that since the adversity causative cannot be passivized, it is clear that the nominative argument is not an external argument. Hence, it is like the adversity passive and unaccusatives that do not passivize. There is no difference between adversity causatives and adversity passives due to passivization. However, the interpretations of the two are different. The adversity causative is causative in meaning

while the adversity passive is not. This indicates that only the adversity passive, and not the adversity causative, is compatible with the situations where there is no cause. So, the conclusion drawn is that Japanese causatives involve causation without an external argument. Furthermore, it is evident that CAUSE in these constructions does not *implicitly* introduce an external argument as the adversity causative does not behave as do passives, e.g., we can modify the implicit agentivity present in a passive with a purpose clause but it is impossible with an adversity causative.

Thus, Pylkkänen concludes that in a Japanese causative, a causing event is introduced without an introduction of any type of external argument, implicit or explicit. The Finnish desiderative causative also lacks an external argument, though its interpretation does involve a causing event and there is no implicit participant related to this causing event. These data support her proposal that CAUSE can be independent of θ_{EXT}.

Hindi-Urdu causatives, unlike their Japanese and Finnish counterparts, have only one regular causative interpretation and not the one where the nominative argument is not interpreted as an agent of the causing event, but as an affected argument of the caused event. Consider the following examples,

24. (a) rozii-ne richaa-se haanDii uTHwaaii *(Hindi-Urdu)*
Rozy-ERG. Richa-INSTR. pot lift-CAUSE-pst
'Rozy made Richa lift the pot.'

(b) raam-ne sitaa-ko kitaab dilwaaii
Ram-ERG. Sita-DAT. book give-CAUSE-pst
'Ram made (somebody) give Sita book.'

The nominative arguments in (a) and (b) 'Rozy' and 'Ram' are always interpreted as agents of causing events.

The Hindi-Urdu causatives can be passivized.e.g.

25. rozii-dwaaraa[3] ricaa-se haanDii uTHwaaii gayii

[2] External argument introducing head is taken to be interpreted as the thematic relation that holds between the individual that is merged into its Spec. position and the event described by its complement.
[3] In Hindi-Urdu, *dwaaraa* is used both as a passive marking and as an instrumental marking.e.g.,

Rozi-by(PASS.) Richa-INSTR. pot lift-CAUSE-pst go-pst

'The pot was made lifted by Rozy through Richa.'

Thus, in Hindi-Urdu, the nominative argument is the external argument. Furthermore, there is no difference between the interpretations of the causative and its passivized form. Both the constructions are compatible within CAUSE and events. A causing event in Hindi-Urdu, is always introduced with an external argument, explicit or implicit; implicit in the passivized form, e.g.

26. ricaa-se haanDii uTHwaaii gayii

Richa-INSTR. pot lift-CAUSE-pst go-pst

'The pot was got lifted by Richa.'

Hence, Hindi-Urdu causatives qualify as having the structure of causation with external argument.

3.2.3Reflexives in Hindi-Urdu Causatives:

Turning to the following causative constructions in Hindi-Urdu,

27 (a). raam$_i$-ne mohan$_j$-se apnii$_{i/j}$ kahaanii likhwaaii

Ram-ERG. Mohan-INSTR. self's story write-CAUSE-pst

'Ram$_i$ made Mohan$_j$ write self's$_{i/j}$ story'.

---

caaku-dwaaraa, i.e. by knife. *se* is another instrumental marking which is used commonly. e.g., haaTH-se ,i.e. by hand. The instrumental marking *se* can be used more than once but the passive marking *dwaaraa* cannot be.e.g.,

a) raam-ne haaTH-se caakuu-se seb kaataa

Ram-ERG hand-INSTR knife-INSTR. apple cut-pst

'Ram cut the apple by hand through knife.'

b) *raam-dwaaraa caakuu-dwaaraa seb kaataa gayaa

Ram-INSTR knife-INSTR apple cut go-pst

'The apple was cut by Ram by the knife.

c) raam-dwaara caakuu-se seb kaataa gayaa

Ram-PASS. knife-INTR. apple cut go-pst

'The apple was cut by Ram through knife'.

(b) $asok_i$-ne $raam_j$-se $apnaa_{i/j}$ homwa:k karwaayaa
Ashok-ERG. Ram-INSTR. self's homework do-CAUSE2-pst.
'$Ashok_i$ made Ram_j do self's$_{i/j}$ homework.'

(c) $badar_i$-ne $farzaanaa_j$-ko $apnii_{i/j}$ saarii pahanwaaii
Badar-ERG. Farzana-DAT. self's sari wear-CAUSE2- pst.
'$Badar_i$ made $Farzana_j$ wear self's$_{i/j}$ sari.'

(d) $\underline{ʃ}$iwaanii$_i$-ne $ricaa_j$-se $apnaa_{i/j}$ kamraa saaf karwaayaa
Shivani-ERG. Richa-INSTR. self's room clean do-CAUSE2-pst.
'$Shivani_i$ made $Richa_j$ clean self's$_{i/j}$ room.'

(e) rozii$_i$-ne $ricaa_j$-se $apnii_{i/j}$ haandii uTHwaaii
Rozy-ERG Richa-INSTR. self's pot lift-CAUSE2-pst.
'$Rozy_i$ made $Richa_j$ lift self's$_{i/j}$ pot.'

(f) miitu$_i$-ne mini$_j$-se $apnaa_{i/j}$ naakhun katwaayaa
Mitu-ERG. Mini-INSTR. self's nail cut-CAUSE2-pst.
'$Mitu_i$ made $Mini_j$ cut self's$_{i/j}$ nails.'

(g) $raam_i$-ne $mohan_j$-se $apne_{i/j}$ kapRe dhulwaae
Ram-ERG. Mohan-INSTR. self's clothes clean-CAUSE2-pst.
'Ram_i made $Mohan_j$ clean self's$_{i/j}$ clothes.'

(h) miinaa$_i$-ne cunnuu$_j$-se $apnaa_{i/j}$ darwaajaa khulwaayaa
Mina-ERG Cunnu-INSTR. self's door open-CAUSE 2-pst
'$Mina_i$ made $Cunnu_j$ open self's$_{i/j}$ door'.

(i) $mohan_i$-ne $asraf_j$-ko $apnii_i$ kalam bhijwaaii

Mohan-ERG. Ashraf-DAT. self's pen send-CAUSE-pst

'Mohan$_i$ made (somebody) send **Ashraf**$_j$ self's$_i$ pen.'

(j) badar$_i$-ne farzaanaa$_j$-ko apnii$_i$ **saarii** pahanaaii

Badar-ERG. Farzana-DAT. self's **sari** wear-CAUSE-pst.

'Badar$_i$ made Farzana$_j$ **wear** **self's**$_i$ sari.'

(k) raam$_i$-ne sitaa$_j$-ko apnii$_i$ **kitaab** **dilwaaii**

Rami-ERG Sita-DAT self's **book** **give-CAUSE2-pst.**

'Ram$_i$ made (somebody) give **Sita**$_j$ **self's**$_i$ book.'

First the generalizations,

In all the above sentences except (i), (j) and (k), we have both the causer and the causee which qualify as 'subjects' to bind the reflexives. In (i), (j) and (k), we have the causer and the recipient (goal argument) and only the causer qualifies as the 'subject' to bind the reflexive. Compare example (i) with (l),

(l) mohan$_i$-ne samar$_j$-se aʂraf$_k$-ko **apnii**$_{i/j*k}$ kalam bhijwaaii

Mohan-ERG. Samar-INSTR. Asraf-DAT. **self's** pen send-CAUSE-pst

'Mohan$_i$ made Samar$_j$ send Asraf$_k$ **self's**$_{i/j*k}$ pen.'

In this example, we have the causer, the causee and the recipient. Only the causer *'Mohan'* and the causee *'Samar'* qualify as 'subjects' to bind the reflexive, not the recepient *'Asraf'*.

The causer and the causee can be termed as **Manning's** 'a-subjects'. I suggest that only the causer and the causee qualify as 'a-subjects', not the recipient (goal argument). Hence, only the causer and the causee can bind the reflexive, not the recipient (goal argument).

To make this analysis compatible with the minimalist understanding, I adopt, here, Pylkkänen's proposals for the structure of causatives. As discussed in the previous section, Hindi-Urdu causatives have the structure with θ_{EXT}. I propose that the causer

and the causee both are arguments of v. Thus, Manning's 'a-subject' can be stated to be argument of v. Only the arguments of v can be the antecedents for the reflexives. Thus, it can be said that because the recipient or the goal argument is not the argument of v, it cannot be the antecedent for the reflexive.

This analysis, even as it explains the phenomenon of multiple antecedents for reflexives in Hindi-Urdu causatives, does not yet provide a comprehensive account of reflexive binding in Hindi-Urdu as shown in examples (2)-(6), repeated here as (28)-(32).

(28) raam$_i$-ne siitaa$_j$-ko apnii$_{i/j}$ baRaaii karte hue sunaa

Ram-ERG Sita-DAT self's praise do-IMPF be-PF hear-pst.

'Ram$_i$ heard Sita$_j$ doing self's$_{i/j}$ praise'.

(29) nuur$_i$-ne amiinaa$_j$-ko apne$_{i/j}$ kamre meN bhej diyaa

Noor-ERG Amina-DAT self's room into send give-pst

'Noor$_i$ sent Amina$_j$ into self's$_{i/j}$ room'.

(30) raam$_i$-ne siitaa$_j$-ko apne$_{i/j}$ ghar meN ghuste hue dekhaa

Ram-ERG Sita-DAT self's house into enter-IMPF be-PF see-pst

'Ram$_i$ saw Sita$_j$ entering into self's$_{i/j}$ house'.

(31) raam$_i$-ka apne$_{i/j}$ baccoN-ko sar par caRHaanaa siitaa$_j$-ko acchaa

Ram-GEN self's children-DAT head on lifting up Sita-DAT good

nahiin lagaa

not like-pst

'Sita$_j$ didn't like Ram's$_i$ spoiling self's$_{i/j}$ children'.

(32) vinay$_j$-ke apne$_{i/j}$ bhaaii-ko thappaR maarte hii raam$_i$

Vinay-GEN self's brother-DAT slap beat-IMPF EMPH Ram

naaraaz ho gayaa

angry become go-pst

'Ram$_i$ got angry as Vinay$_j$ slapped self's$_{i/j}$ brother'.

In all these examples, there is only one 'a-subject' but the reflexive may be anteceded by non-local or non-subject antecedents. It is therefore imperative that the analysis of causatives be assimilated into the general theory of how reflexive interpretation is

licensed in current minimalist design of UG. The next section attempts just that, I begin with a brief summary of the salient properties postulated in the Minimalist Inquiries and Derivation by Phase.

3.3 *Minimalist Inquiries* (2000) / *Derivation by Phase* (2001)

Chomsky (1998,2000) postulates the core theoretical assumptions of minimalist approaches to UG as follows:

33. (a).There is a faculty of language FL, a component of the human mind / brain dedicated to language. FL can be regarded as a 'language organ'.

(b). Like other organs, FL has an 'initial state' so that is an expression of genes. Universal Grammar (UG) is understood to be the theory of the initial state, and particular grammar to be theories of attained states.

(c) The language L includes a cognitive system that stores information about sound, meaning and structural organization. Performance systems access this information and put it to use.

(d). Performance systems are of two kinds: sensorimotor systems and systems of thought.

(e) UG provide a set of features, a procedure to assemble features into lexical items, and a small set of successively applicable operations that that form syntactic objects

(f). Language L is a device that generates expressions EXP = < PHON, SEM > where PHON provides the "instruction" to sensorimotor (PF) systems and SEM to systems of thought (LF).

(g) movement is driven by EPP-feature only.

The central thesis of minimalism is that the computation system of human language or C_{HL} is the optimal solution to legibility conditions. The goal is to explain observed properties of language in items of these legibility conditions.

The model of grammar in minimalism looks like:

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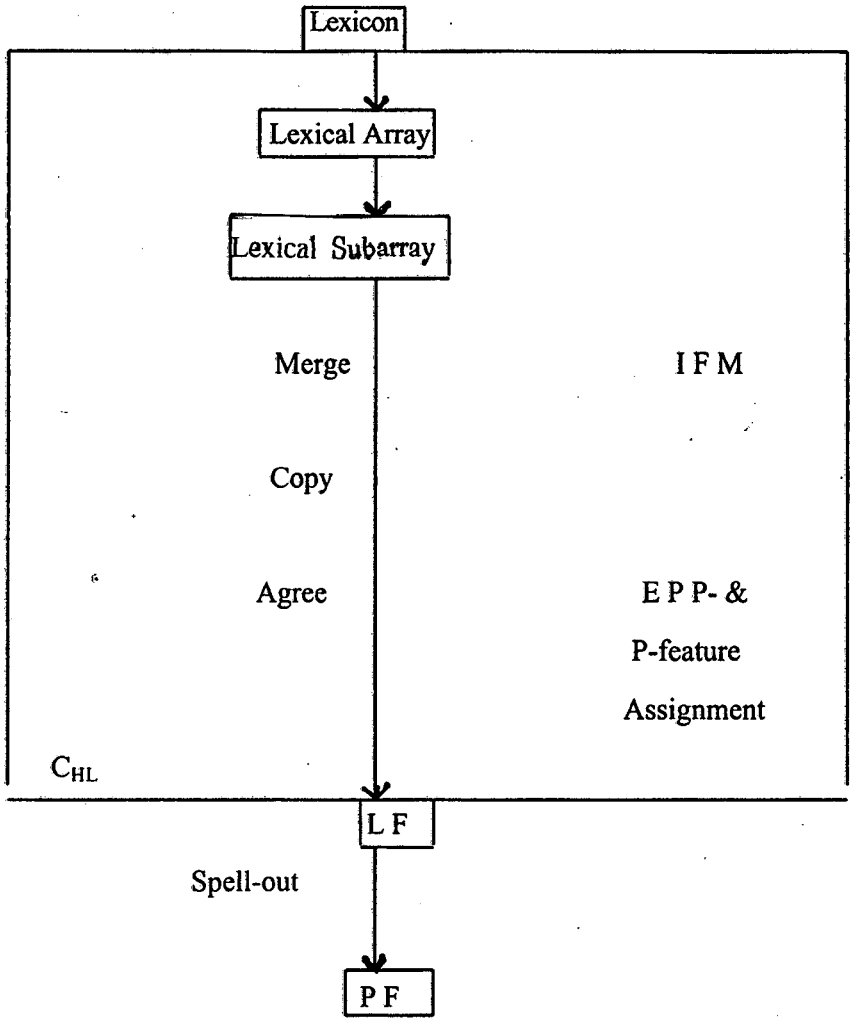


The kind of complexity in *The Minimalist Program* has been reduced. Procrastinate[4] is no longer formulable in *MI* eliminating a case of look ahead. The concept strength, introduced to force violation of Procrastinate, appears to have no place[5].

[4] Procrastinate: Economy condition, i.e, LF movement is cheaper than overt movement. Chomsky (1995).
[5] According to Chomsky, it is conceptually problematic to have 'strength' because strength is a feature of a feature.

Chomsky proposes that computation proceeds on the basis of a Lexical Array, the set of lexical items selected for computation, and has access to the lexicon after the asssembly of the Lexical Array, merely reducing computation complexity.

There are three operations which enter into the component of C_{HL}. The first is Merge, which forms complex syntactic objects by taking two elements, combining them and assigning a label to the newly formed object. Chomsky proposes that selectional properties of the merging elements determine the label of the new syntactic object. The second operation is Agree, which establishes a relation (agreement, case- checking) between a lexical item and a feature in its search space (domain). The third operation is Move, combining Merge and Agree. Pure merge is Merge that is not part of Move.

In *MP*, Agree is analyzed in terms of feature movement (Attract) and the concept of matching is not clear. In *MI*, matching is taken to be identity and Attract is dispensed with. Checking reduces to deletion under matching with an active goal and then, deletion of the uninterpretable feature that render the goal active. Probe seeks a goal, 'matching' features that establish agreement. The assumptions for the 'Probe-goal' system are:

35. (a) matching is feature-identity

(b) D (P) is the sister of P

© locality reduced to 'closest c-command'

In M P, movement was feature driven. *MI* takes a different position. Movement can be feature-driven or not. On the PF-side, we have operations like heavy NP-shift and on the meaning side, we have QR. Both types of movement don't seem to involve any observable uninterpretable features in the target of movement. The same holds for EPP driven movement.

Chomsky, here, abandons feature movement altogether: Agree occurs overtly, without ant kind of movement. It means that there is just one cycle; all operations are cyclic. If both overt and covert operations are cyclic, then there are two independent cycles; and if operations of the phonological component are cyclic, a third cycle as well.

With cyclic Spell-Out contingent on feature-checking operations, these operations collapse.

Chomsky, further proposes to divide LA into lexical subarrays to reduce operative complexity. First, LA is selected and at each stage of the derivation, a subset LA_i is extracted, placed in active memory and submitted to the procedure L. When LA_I is exhausted, the computation can either proceed or may return to LA and extract LA_j. The process continues until it terminates. The process continues until it terminates.
LA_i determines a natural syntactic object a SO, this is a 'phase'. A phase is CP or vP (with all selectional requirement satisfied); for Chomsky, this choice is supported by considerations on the sound side: vPs and CPs, but not TPs can be fronted, extraposed, pseudoclefted, and can serve as response fragments. He assumes, phases satisfy a stronger cyclicity condition-

36.

" The head of a phase is 'inert' after the is completed, triggering no further operations."

So, a phase cannot trigger Merge or Attract in a later phase.
A chain is considered as a set of occurrences of an object α in a constructed syntactic object K. Agreement (hence movement) is driven by uninterpretable features of the probe, which must be deleted for legibility. The operation Greed of *MP*, in contrast, was driven by uninterpretable features of the goal. In *MI*, it is Suicidal Greed, which does not have the 'look-ahead' property of Greed, as a matter of fact, it is also a kind of complexity reduction.

The *MI* organization of grammar entails that syntax and semantics are built up in a parallel way. It eliminates levels apart from the interface level, maintains a bare phrase structure theory, and the inclusiveness condition, which bars introduction of new elements (features) in the course of computation: indices, traces, etc.

In *Derivation by Phase*, Chomsky extends the suggestion of *MI* that Spell-Out is cyclic, at the phase level. There is, as stated in *MI*, no overt- covert distinction with

two independent cycle (rather, a single narrow-syntactic cycle). Furthermore, the phonological cycle proceeds in parallel. Chomsky sharpens the idea that features deleted within the cyclic computation remain until the phase level, at which point the whole phase is 'handed over' to the phonological component. The deleted features disappear from the narrow syntax, allowing convergence at LF. So, until the stage of Spell-Out of the full syntactic object, uninterpretable features have to remain, because of their phonetic reflexes. This reduces the computation burden further. This follows clearly from P I C in *MI*. Strengthening the notion of cyclic derivation, Chomsky proposes 'Phase- Impenetrability Condition' (P I C):

37.

" In phase α with head H, the domain of H is not accessible to operations outside α, but only H and its edge". Under P I C, accessibility of H and its edge is only up to the next strong phase. Strong phases are targets for movement (i.e. CP/ V*P, having an EPP-feature and full argument structure. Phasal heads that lack an EPP-feature are by definition weak. In unaccusatives, v lacks both an EA and an EPP-feature, hence weak. Local head movement and successive cyclic A- and A'- movement are allowed, and the phonological component can proceed without checking back to earlier stages. The assumption, here, is that the phonological component spells out elements that undergo no further displacement, e.g.

38.

$[_{ZP}\ Z.....[_{HP}\ \alpha\ [\ H\ YP\ ]]]$

Here, under P I C, H and its edge α belong to ZP for the purpose of Spell-Out. YP is spelled-out at the level of HP. H and α are spelled-out if they remain in-situ. Otherwise, at the next strong phase ZP, their status is determined. Chomsky proposes the guiding principle for phases PH_i :

39. Interpretation/evaluation for PH_1 is at the next relevant phase PH_2.

So, the effects of Spell-Out are determined at the next higher strong phase: CP or v*P. Therefore, a strong HP allows extraction to its outer edge; the domain of H can be

assumed to be inaccessible to the extraction under P I C: an element to be extracted can be raised to the edge, the phonological component spells-out the domain at once, without waiting for the next phase. P I C is restated as:

40. The domain of H, for strong phase HP, is not accessible to operations at ZP, but only H and its edge (where edge is the residue outside of H').

41.

$[_{ZP}\ Z.....[_{HP}\ \alpha\ [\ H\ \ YP\ ]]]$

After completion of HP, if computation L moves on to a stage ™, it can access only the edge α and the head H of HP. But there is a distinction between ™=ZP and ™ within ZP. If Z=T, the probe T can access an element of the domain YP of HP. But if Z=C, beyond CP, TP can not be extracted, only the edge of head of TP is accessible for extraction to C.

Chomsky assumes that the operations Agree/Move[6] apply freely. The probe-goal relation is evaluated for the Minimal Link Condition (M L C) at the strong phase level when the outer edge of the phase has become a trace, losing its phonological features. Chomsky restricts the equidistance principle[7] to the 'phonological edge' of the category, i.e. an edge element with no phonological material c-commanding it within the category:

42.

'The phonological edge of HP is accessible to probe P.'

So, in the structure given below, XP prevents Match of probe P and SPEC, under M L C, only if XP has phonological content:

43.

$[_{ZP}.....P....[_{HP}\ XP\ [_{SPEC}\ [H\ \ YP\ ]]]$

With the assumptions that the lexicon LEX is partially distributed and Spell-Out is at the next higher strong phase ZP, and that M L C, too, is evaluated at this stage of

[6] Chomsky also reconstrues operation Move as the operation Agree/ Pied-pipe/ Mark, where Agree holds of Probe H, Goal G and Mark identifies H as the head of an occurrence HP of the pied-pipe category K determined by G.

[7] Chomsky restates the equidistance principle as:
'Terms of the edge of HP are equidistance from probe P.'

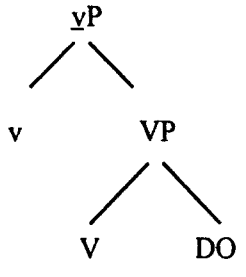
derivation, it is only at ZP that the phonological content of XP is determined. In this way, the notion of equidistance is also dispensed with.

3.3.1 Minimalist Checking Analysis:

As stated before, in weak phases v is φ-incomplete, lacking an EA and an EPP-feature. Now I will discuss Chomsky's account of how checking takes place in weak phases.

The base configuration of unaccusatives, according to Chomsky, is:

44.



where v is φ-incomplete, and lacks both an EA and an EPP-feature. So, the construction

45.(a) There is likely to be a man there.

will have the following derivation,

(b) [$_{CP}$ C [$_{TP1}$ there[$_{person}$] T[$_{EPP,\varphi\text{-set}}$] [$_{v*P1}$ v be likely [$_{TP2}$ t_{EXPL} T[$_{EPP}$] [$_{v*P2}$ v to be a man there]]]]]

The embedded T, being infinitival, lacks an uninterpretable φ-set and bears only an EPP-feature. EXPL. merges at TP2 deleting this EPP-feature but its [person] feature does not get deleted as T2 lacks a complete φ-set. So, EXPL raises to TP1, where the EPP-feature of T1 and its own [person] feature gets deleted. The φ-set of T is still intact as its φ-set is larger than [person]. T1 remains eligible for Agree with the nominal 'man'. The φ-set of this nominal is still active as unaccusative v is φ-incomplete. Under remote Agree with T1, this nominal is valued as nominative.

In 45(b), the two weak phases are spelled out together because in weak phases ,PIC does not hold and therefore, extraction of non-edge elements like those from $\underline{v}$P is licit.

I will be attempting to put together an analysis of reflexives using these core assumptions of Chomsky.

3.4 The φ-set of Reflexives

In the approaches to reflexives reviewed in Chapter II, the common point to be noted is that reflexive raising has been linked directly to the reflexives' lack of full φ-set. Whether it is reflexive raising or Reflexivity approaches, the morphological impoverishment of the reflexives is the most relevant. Let us examine how Minimalism looks at this issue.

As stated in Chomsky (1995), features are either intrinsic (listed in the lexical item or determined by listed features) or optional (added arbitrarily as lexical item enters the numeration). Furthermore, features are ±interpretable. –interpretable feature must be eliminated for convergence. Categorial features and φ-features of noun are +interpretable and others are –interpretable. The core property of C_{HL} is 'feature checking'- the features of the head must be checked, or the derivation crashes. So, movement is forced to check feature. A checked feature is deleted (i.e. invisible at LF but accessible to the computation when possible). But it cannot be deleted if that operation would contradict the overriding principle of recoverability of deletion. It implies that interpretable features can not be deleted even if checked. So, in *The Minimalism Program* (1995) also, movement is driven by morphological considerations, 'the requirement that some feature F must be checked'.

The referential / morphological impoverishment of reflexives was also analyzed as a categorial impoverishment. Chomsky and Lasnik (1993) analyze both XP- and X^{O}-reflexives (at least the part that raises) to have the categorial status of an X^{O}- category that cliticizes onto an inflectional head in order to agree with its specifier. Discussed earlier, the proposal creates problems, as it is unable to provide the reason for difference

between two types of reflexive elements. If we take the earlier categorization of reflexives into XP- and X^{O}- reflexives (Pica, 1987), an XP- reflexive is adjoined to the Spec. of the functional head to match its φ-features with that head whose Spec. hosts the antecedent of the reflexive at LF and an X^{O}- reflexive agrees with the DP in the Spec. of the functional head to which it is cliticized at LF.

In *MP* (Chomsky, 1995), movement is to check features and that too, is permitted if there were no other way. Note that with reflexives the case differs. In Reflexive Raising Approaches, reflexives move in order to acquire the full set of φ-features. After that, checking relations come into the picture. So, there has to be two kinds of movements for reflexives, one, to acquire φ-features and the other, to get the features checked. This seems somewhat incompatible.

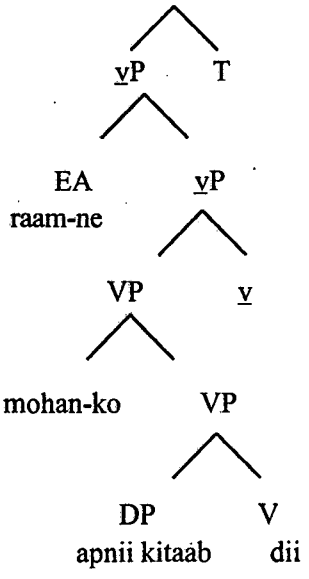
It will be recalled that in my discussion of the existing approaches to reflexive binding, it was noted that most of the minimalist approaches to reflexive interpretation make crucial use of the morphological impoverishment of reflexives. While one set of approaches (Pica 1987,1991; Cole, Hermon & Sung 1990) poses this in terms of categorial status, the other, particularly Richards (1996), adduces this to an impoverished φ-set. In my view, the former is simply incorrect and theoretically untenable, as under current assumptions of Bare Phrase Structure, a category that projects no further is both minimal and maximal. Furthermore, the XP-reflexives also show morphological impoverishment in terms of φ-features. Therefore, proper characterization of reflexives is that which attributes to them an impoverished φ-set, which must be licensed under Agree.

3.5 Licensing Reflexives

With a operation like Agree, φ-set licensing takes place in situ, movement only possible with an EPP-feature. I propose that reflexive interpretation involves an Agree relation between T and the reflexive. Consider the following sentence in Hindi-urdu,

46.(a) $[_{TP}$ raam-ne$[_{VP}$ mohan-ko apnii kitaab dii]]

(b)



T has uninterpretable features of two kinds: the φ-features and the selectional feature EPP. EPP seeks an XP to merge with the category it heads. φ-set is a probe that seeks a goal, matching features to establish agreement. The φ-set of T locates the reflexive as the goal. The reflexive agrees with T. This operation does not delete the φ-set of T as the φ-set of the reflexive is incomplete. Therefore, Agree holds between the probe T and the more remote goal 'raam-ne' deleting its φ-set and the structural case of 'raam-ne'.

This analysis captures the subject antecedents for both possessive reflexives and otherwise. It also explains Chinese. Consider the example,

47. zhangsan$_i$ renwei Lisi$_j$ zhidao wangwu$_k$ xihuan *ziji*$_{i/j/k}$. (*Chinese*)

Zhangsan think Lisi know Wangwu like self

'Zhangsan$_i$ thinks Lisi$_j$ knows Wangwu$_k$ likes self$_{i/j/k}$'

Here also, the T (whether embedded or matrix one) seeks reflexive as goal, but as its φ-set remains intact, it has to agree with the subject of its own clause. Thus, the reflexive gets the subject antecedents' interpretation. Let us consider the 'blocking effect' in Chinese,

48. zhangsan renwei [wo zhidao [wangwu xihuan *ziji*]]

Zhangsan think I know Wangwu like self

'Zhangsan thinks that I know that Wangwu likes himself'.

Here, *ziji* can only be coindexed with Wangwu.

It can be argued that the Chinese reflexive *ziji* has a person feature in its φ-set. So, it has to get valued. If it does not, the derivation crashes. That is why, we get 'blocking effect' in Chinese. In Hindi-Urdu, the person feature is not encoded in the φ-set of the reflexive, only gender and number. Consider the following paradigm,

49.	I p sg/pl	II p sg/pl	III p sg/pl
	apnii kitaab	apnii kitaab	apnii kitaab
	self's book	self's book	self's book

So, only gender and number has to get value. Thus, in Hindi-Urdu, there is no blocking effect.

3.6 Extending the analysis

The analysis so far does not explain the facts of reflexive interpretation in participials, non-finite nominalised clauses, verbal non-finite clauses and ECV constructions (light verb constructions) in Hindi-Urdu. I will exploit the notion of weak phase above to explain these.

3.6.1 Checking in Weak Phase

Let us consider Chomsky's analysis of participial passives and how strong-weak notion of phase is necessary.

50. (a) [C [$_{\beta}$ T seem

[EXPL to have been [$_{\alpha}$ caught several fish]]]]

[$_{\beta}$ v expect

Here, the probes (T or v) agree with EXPL and fish. T deletes the uninterpretable feature of EXPL; v deletes the uninterpretable features of EXPL. The participial (PRT) agrees with the direct object (DO) fish. Considering more closely the first stage of cycle,

(b) [$_{\alpha}$ PRT [catch [$_{DO}$ several fish]]]

Here, there is an agreement between PRT and DO. PRT, being adjectival, has number, gender and Case in its φ-set. DO has a full φ-set, so, number and gender for PRT are valued and get deleted. The Case does not get valued, so, PRT and DO cannot assign a Case value to one another.

In stage β of the derivation cycle, there is an agreement between probe and EXPL and also between probe and DO. The uninterpretable features of probe and goal get deleted. Chomsky raises an important question here- at stage β, because PRT's φ-features get deleted, they

should be invisible to Match by the probe. Then, Case of PRT cannot be valued and the derivation should crash. But this does not happen.

To resolve this problem, Chomsky assumes that Spell-out takes place at the strong phase level. Now, the φ-feature of PRT would remain invisible at stage β. It is only at the strong phase level CP or vP that they disappear.

At stage α, as PRT-DO match, the φ-features of PRT get valued, while at stage β, the Case features of PRT gets valued as probe T or v match PRT (which is still visible). The match between probe and DO (goal) values the Case feature of DO and the feature of probe. The uninterpretable features, which are valued now, get eliminated at the

strong phase level CP or vP as the Syntactic Object gets transferred to the phonological component.

3.6.2 Reflexive Interpretation in Hindi-Urdu

Let us analyze various constructions regarding reflexives in Hindi-Urdu.

3.6.2.1 Participial Constructions

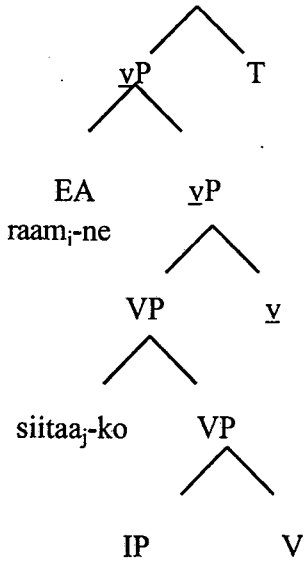
Consider the following sentences,

51. (a) raam$_i$-ne siitaa$_j$-ko apnii$_{i/j}$ baRaaii karte hue sunaa
Ram-ERG Sita-DAT self's praise do-IMPF be-PF hear-pst.
'Ram$_i$ heard Sita$_j$ doing self's$_{i/j}$ praise'.

(b) raam$_i$-ne siitaa$_j$-ko apne$_{i/j}$ ghar meN ghuste hue dekhaa
Ram-ERG Sita-DAT self's house into enter-IMPF be-PF see-pst
'Ram$_i$ saw Sita$_j$ entering into self's$_{i/j}$ house'.

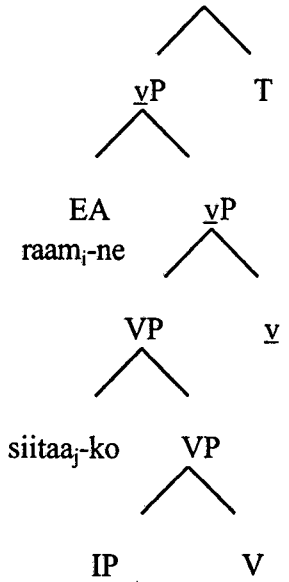
In both the sentences with participial clauses, the VP is non-finite,i.e. embedded T is φ-incomplete. So, the VP is a weak phase. Now let us consider the structure of these sentences and then analyze how the reflexive interpretation is arrived at.

52(a)



[PRO$_j$ apnii$_{i/j}$ baRaaii karte hue] sunaa

(b)



[PRO$_j$ apne$_{i/j}$ ghar meiN ghuste hue] dekhaa

First consider the VP. The embedded T (i.e. probe) enters into an Agree relation with the reflexive 'apnii' (i.e. goal). By local c-command relation, the reflexive gets coindexed with PRO, which is in the Spec of the embedded T. PRO is controlled by 'Sitaa' (i.e. it bears the φ-features of 'sitaa' and hence coindexed with it. So, the reflexive 'apnii' is

coindexed with 'sitaa'. As the embedded T is φ-incomplete, it renders vP a weak phase and PIC does not hold here. So, this VP is accessible to further operations outside and its interpretation is at the matrix clause which counts for the next relevant phase for it (under 28). Now the matrix T (i.e. probe), which is φ-complete, enters into an Agree relation with the reflexive (i.e. goal). This operation does not delete the uninterpretable features of T as the reflexive is φ-incomplete and the φ-set of T remains intact. It has to again enter into a checking relation with the subject 'raam' as a result of which the reflexive gets coindexed with 'raam'. Hence, the reflexive 'apnii' gets both 'raam' and 'sitaa' as its antecedents.

3.6.2.2 Light Verb / (ECV) Constructions

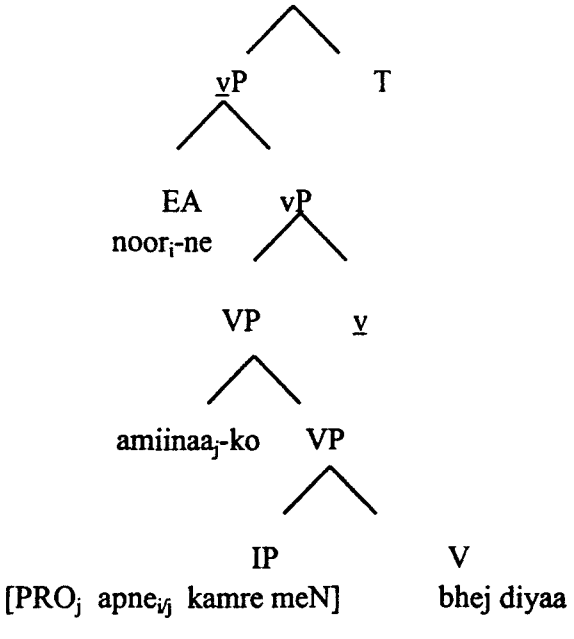
Consider the following example,

53.(a) $nuur_i$-ne amiinaa$_j$-ko apne$_{i/j}$ kamre meN bhej **diyaa**

Noor-ERG Amina-DAT self's room into send **give-pst**

'Noor$_i$ sent Amina$_j$ into self's$_{i/j}$ room'.

(b)



This is explained through the same analysis that explains the participial constructions.

3.6.2.2 Object Control Vs Subject Control Predicates

Consider the following examples,

54(a). $raam_i$-ne $siitaa_j$-ko [PROj $apnii_{i/j}$ gaaRii laane-ko] kahaa
Ram-ERG Sita-DAT self's car bring-to say-pst
'Ram_i asked $Sita_j$ to bring self's$_{i/j}$ car'.

Vs

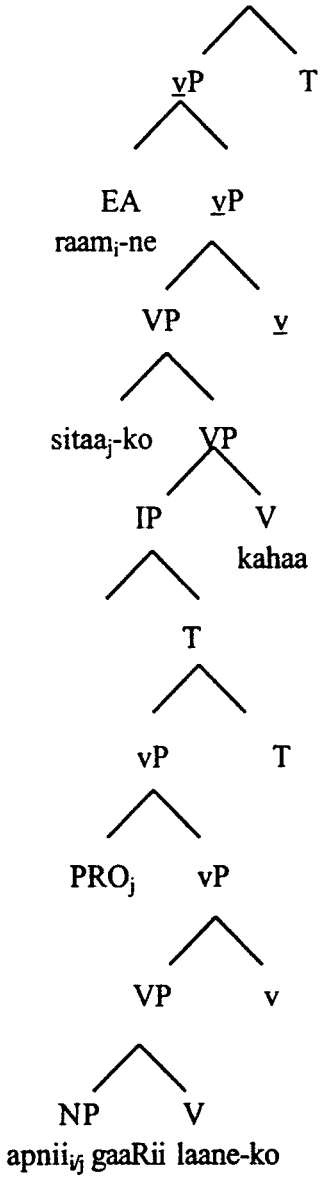
(b) $raam_i$-ne $siitaa_j$-se [PRO_i $apnii_{i/*j}$ gaaRii laane-ka] vaadaa kiyaa
Ram-ERG Sita-INSTR. self's car bring-GEN promise do-pst
'Ram_i promised $Sita_j$ to bring self's$_{i/*j}$ car'.

(Kidwai:2000)

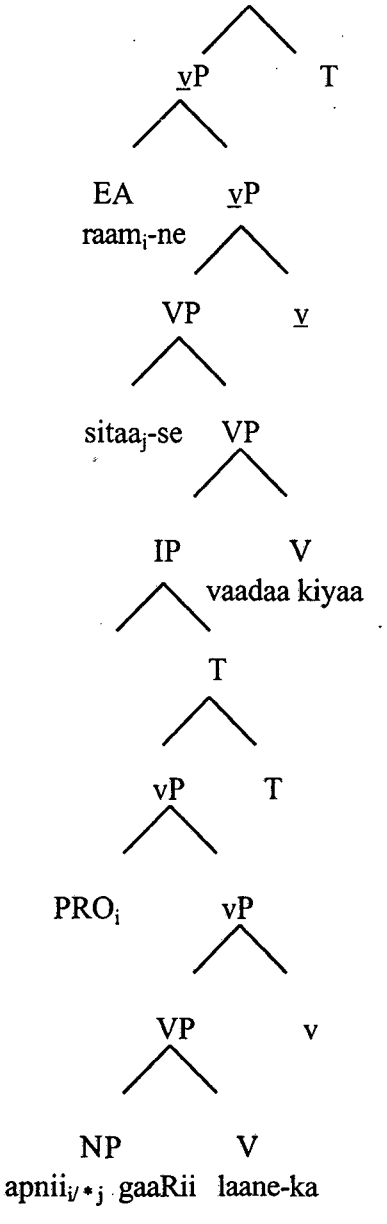
The predicates *say* and *promise* are object and subject control predicates, respectively. Only in object control environments the reflexive is ambiguous in reference (as seen in the earlier examples also). Kidwai (2000) points out this 'feeding effect' with object control. Though she provides no convincing explanation for this, she notes that because PRO must necessarily be in [Spec, TP], it is the φ-features of PRO that are relevant in determining in the possibility of X^0-reflexive successive cyclic raising.

Now let us proceed with our anlaysis and see how it explains the above Object Vs Subject Controlled facts in Hindi-urdu. The relevant structures for 53 (a) and (b) are:

55(a)


vP
T
EA
vP
raam$_i$-ne
VP
v
sitaa$_j$-ko
VP
IP
V
kahaa
T
vP
T
PRO$_j$
vP
VP
v
NP
V
apnii$_{i/j}$ gaaRii laane-ko

(b)



In the object controlled predicate the analysis is the same as in the participials and ECV constructions. Consider the subject controlled predicate with the structure (b), PRO, here, bears the φ-features of the matrix subject. The reflexive 'apnii' can only get coindexed with the matrix subject 'raam' in any of the two ways. If we consider the embedded clause, PRO is in the Spec. of the embedded TP, so, by the local c-command relation, the reflexive 'apnii' is coindexed with PRO which is coindexed with the matrix subject. On the other hand, as the embedded T is φ-incomplete, it renders the VP weak

and the interpretation / evaluation of this phase is at the matrix phase, which is the next relevant (i.e. strong) phase for it. Again, the matrix T (i.e. probe) enters into an Agree relation with the reflexive, but the φ-set of t remains intact as the reflexive is φ-incomplete. T enters, then, into a checking relation with the matrix subject and gets its features deleted.

Let us return to our analysis of the causatives. In causatives, there is no question of strength and weakness of the phases. What matters is the structure of causatives which effects the binding possibilities of reflexives in causative constructions. So, the causatives have to have a different analysis and are analyzed separately. Our analysis of causatives does not conflict with the analysis of participials, light verb constructions and the subject Vs object control predicates.

CHAPTER IV

LICENSING PRONOMINALS

Though Principle B of the Standard Binding Theory captures the distribution of pronominals in languages like English, it can not account for possessive and PP pronominals in languages such as Icelandic (Thráinsson 1979, Manzini & Wexler 1987), Danish (Vikner 1985), Russian (Avrutin 1994), Norwegian (Hetvik 1990, 1992), and Hindi-Urdu (Dayal 1993, Davison 1995).

Let us consider the following examples:

1. (a) John$_i$ likes his$_{i/j}$ car. *(English)*

(b) John$_i$ looked behind him$_{i/j}$.

(c) Johni saw him$_{i/j}$.

2. (a) John$_i$ liker hans$_{*i/j}$ bil

(Norwegian)

John likes his car

'John$_i$ likes his$_{*i/j}$ car.'

(b) John$_i$ kikket bak ham$_{*i/j}$

John looked behind him

'John$_i$ looked behind him$_{*i/j}$.'

(c) John$_i$ fortalte Per$_j$ om hans$_{*i/j}$ kone

John told Peter about his wife

'John$_i$ told Peter about his$_{*i/j}$ wife.'

3. (a) mohan$_i$-ne uskii$_{*i/j}$ **taswiir dekhii** ***(Hindi-Urdu)***

Mohan-ERG his **picture** saw

'Mohan$_i$ saw his$_{*i/j}$ **picture**.'

(b) rozii$_i$-ne uske$_{*i/j}$ **piiche dekhaa**

Rozy-ERG her **behind** saw

'Rozy$_i$ saw behind **her**$_{*i/j}$.'

(c) raam$_i$ uske$_{*i/j}$ baare **meN jok pasand** kartaa hE

Ram his about **joke like** does his

'Ram$_i$ likes jokes about **him**$_{*i/j}$.'

In (1a-b), Principle B identifies the binding domain for the pronominal to be the containing DP and PP, respectively, so, the pronominal may be used (co) referentially with the subject. In (1c), the pronominal is referentially independent from all the c-commanding antecedents as the binding domain is identified as the IP. But in (2) and (3), the possessive and PP pronominals obviate from the closest c-commanding subject antecedent. This phenomenon is known as 'Antisubject orientation' since there is no requirement of being free from a higher object, even if this subject is closer than the subject.

Vikner (1985) and Manzini & Wexler (1987) try to account for this phenomenon with special conditions on the antecedent of the pronoun. In addition to subjecting the pronoun to the usual binding domain requirements, a binding-domain-independent condition on the syntactic binder of the pronoun is imposed. These proposals state that, in addition to being free in its binding domain (Condition B), the pronoun must also "subject-free." Vikner calls it a "binder-parameter", whereas Manzini & Wexler call it "proper antecedent" conditions. But these conditions have no relation with the Binding Theory and also, these do not provide any principled explanation as to why the Norwegian pronominals differ from the English ones.

4.1 Hestvik (1992)

Hestvik suggests that antisubject orientation can be explained by a generalization of the reflexive raising approach to pronominals. Based on Pica's (1987) theory of X^0 versus XP LF movement of reflexives, he proposes:

4. "Reflexives and pronouns divide universally into two types: X^0 and XP."

Hestvik assumes that XP-reflexives and pronouns move to a specifier position, in particular, to the specifier position of their governor, opposed to Lebeaux (1983; 1985) and Pica (1987), who assume that XP-reflexives adjoin to another XP at LF. X^0-reflexives and pronouns move to a c-commanding functional category, Infl. being a special case of this. The movement is driven by the following requirements:

5. 5. (a) X^0 pronouns and X^0 reflexives must occur in a functional head.
(b) XP pronouns and XP reflexives must occur in the specifier of their governor. (Hestvik 1992:566)

There are two ways in which these requirements may be satisfied: either the element is base generated in the position it must occur in, or it must move to this position at some stage in the derivation. The movement may be either in the mapping from D-structure to S-structure or in the mapping from S-structure to LF. He further proposes that the requirements in (5) are met at LF in some or all cases. So, the difference between English and Norwegian pronominals lies in the fact, then, that in the former pronominals are XPs, while in the latter they are X^0s.

Let us see how Hetvik explains the difference between English type and Norwegian type languages combining this movement theory with the binding theory.

6. (a) *John$_i$ liker [hans$_i$ kone] *(Norwegian)*
John likes his wife
'*John$_i$ likes his$_i$ wife.'

(b) LF representation:

$[_{IP}$ John$_i$ $[_{I'}$ I hans$_i$ $[_{VP}$ liker $[_{DP}$ $[_{NP}$ t_i $[_{D'}$ D $[_{NP}$ kone]]]]]]]

7. (a) John$_i$ likes [his$_i$ wife]. *(English)*

(b) LF representation:

$[_{IP}$ John$_i$ $[_{I'}$ I $[_{VP}$ likes $[_{DP}$ $[_{NP}$ his$_i$ $[_{D'}$ D $[_{NP}$ wife]]]]]]]

The English XP pronoun satisfies the requirement to occupy the specifier position of its governor at S-structure, so, there is no movement in the mapping from S-structure to LF. The Norwegian X^o pronoun has to move to the closest c-commanding functional category (Infl.). That is why, the Norwegian pronoun is in a different binding domain at LF than it is at S-structure; it has moved into the same binding domain as the matrix subject. At S-structure the domain is the containing DP (as in Eng.), but at LF it is the containing clause.

The English pronoun satisfies Condition B at LF because the subject and the pronoun is not dominated by the same CFC. The Norwegian pronoun satisfies Condition B only at S-structure under coindexation with the matrix subject, but not at LF. John and *hans* are dominated by the same CFC and Condition B is violated.

Consider another example,

8. (a) $[_S$ John$_i$ fortalte Per$_j$ om $[_{DP}$ **hans**$_{*i/j}$ kone]] *(Norwegian)*

John told Peter about his wife

'John$_i$ told Peter$_j$ about his$_{*i/j}$ wife.'

(b) LF representation:

$[_{IP}$ John$_i$ $[_{I'}$ I hans$_j$ $[_{VP}$ fortalte $[_{NP}$ **Per**$_j$] $[_{PP}$ P $[_{DP}$ $[_{NP}$ t_j $[_{D'}$ D kone]]]]]]]

Hestvik explains it as follows:

In the S-structure representation, coindexation between *hans* and *Per* does not violate Condition B, since *Per* is outside the S-structure binding domain of the pronoun (i.e. DP). At LF, the pronoun moves to Infl. Even though, now, *hans* is in the same domain

reflexivization, there is no evidence for a relation between Tns and pronominalization. And, languages do not appear to exhibit both X^0- and XP- pronominals in the way that they may have both X^0- and XP- reflexives.

4.2 Kidwai (2000)

Kidwai, too, argues for a reflexive raising approach to pronominal reference. She adapts Avrutin's (1994) proposals on how the LF raising of pronominals may be built into the theory of grammar. As morphosyntactic motivation to drive pronominal raising at LF seems to be lacking, Avrutin suggests that the motivation is at least partly interpretive in nature. He proposes that any pronominal that is to be evaluated for its referential (in)dependence from a syntactically c-commanding antecedent must be in the following configuration at LF:

10. THE STRUCTURAL POSITION OF BOUND VARIABLES

At LF, a pronominal interpreted as a bound variable must be in a functional projection.

where 'inclusion in a functional projection' is disjunctively defined as either adjunction to its head or substitution into its specifier position, and where the relevant functional heads are I^0 and/or D^0. In his proposal, the LF raising of pronominals is restricted to instances where pronominal interpretation is sought to be controlled by an element in the syntactic context, because "although an element interpreted as a bound variable may have (at least some) φ-features.....These features are not used for establishing the reference for the element. Bound variables do not receive their reference independently: their value depends on the choice of value for the operator that binds them" (Avrutin 1994:711). As (10) is to be interpreted as "a wellformedness condition that applies at the interface level between syntax and the interpretive mechanism, ruling out those representations where pronominals (interpreted as bound variables) appear in a lexical projection" (Avrutin 1994:711), only those pronominals that receive a bound variable interpretation will raise at LF. Pronominals that are used referentially need not raise as

their referential interpretation accesses only the φ-features intrinsically specified on them.

Through Avrutin's approach Kidwai explains the difference between Hindi-Urdu- and English- type languages as follows:

In Hindi-Urdu/Russian, pronominals that are syntactically bound do not satisfy (10) at Spellout, but in English they do. For example,

11. (a) kazdyj student citaet **ego**$_{*i/j}$ knigu *(Russian)*
every student is reading **his** book
'Every student$_i$ is reading **his**$_{*i/j}$ book.'

(b) har laRkii$_i$ uskii$_{*i/j}$ **kitaab paRH** rahii hE *(Hindi-Urdu)*
every girl her book **read** PROG is
'Every girl$_i$ is reading her$_{*i/j}$ **book**.'

© Every girl$_i$ is reading her$_{i/j}$ **book**.' *(English)*

As the *i* reading in (11) represents the bound variable reading for the pronominal, it must be included in the functional projection of D^o or I^o by LF. Avrutin argues that in English, because possessors raise to [Spec, DP] by Spellout, there is no need to raise at LF as pronominal satisfies this requirement without LF movement. The DP containing the pronominal is identified as its binding domain (CFC), and because the pronominal respects Principle B in this domain, it may freely corefer with the subject. On the other hand, in Hindi-Urdu / Russian, Spellout chains do not involve overt raising of the possessor to [Spec, DP]; rather, the configuration that reaches PF is [$_{DP}$ D [$_{NP}$ POSSESSUM]]. The pronominal, then, must raise to D^o or I^o at LF. Now IP is the binding domain for the pronominal because the possessive DP containing the possessive pronominal is no longer the binding domain after LF raising. Binding of the subject quantifier with the pronominal would then result in Principle B violation. Kidwai points out that Avrutin's proposals, though, execute Hestvik's intuitions "with some elegance", they do allow (covert) movement to be driven primarily by interpretive considerations. Furthermore, this also indicates to the fact that at least some instances

of covert movement may be driven not by morphology but by concerns of interpretation, a failure to raise resulting in nonconvergence with respect to Full Interpretation at LF. On the understanding that the checking of an interpretive feature does not significantly undermine minimalist assumptions about movement, Kidwai assumes that all possessive pronominals enter a checking relation with D^0.

Regarding the choice between pronominal raising to D^0 or I^0, Kidwai questions why pronominals, if they may adjoin to I^0 just like X^0-reflexives (as Avrutin allows for pronominals to raise targeting Tns), do not move successively cyclically like them at LF. She mentions that though the option is irrelevant in most cases because either pronominal moves to D^0 or to I^0, pronominal raising identifies the IP containing it as the binding domain, there is one instance where raising to I^0 can not be substituted for by raising to D^0, and that is DOC (Double Object Construction). Consider the following examples,

12. (a) Ol'ga$_j$ pokazala kazdyj devocka$_i$ ee$_{i/*j}$ komantu *(Russian)*
Olga showed each girl(IO) her room(DO)
'Olga$_j$ showed each girl$_i$ her$_{i/*j}$ room.'

(b) noor$_j$-ne har laRkii$_i$-ko uskii$_{i/*j}$ kitaab dii *(Hindi-Urdu)*
Noor(SU) each girl(IO) her book gave
'Noor$_j$ gave each girl$_i$ her$_{i/*j}$ book.'

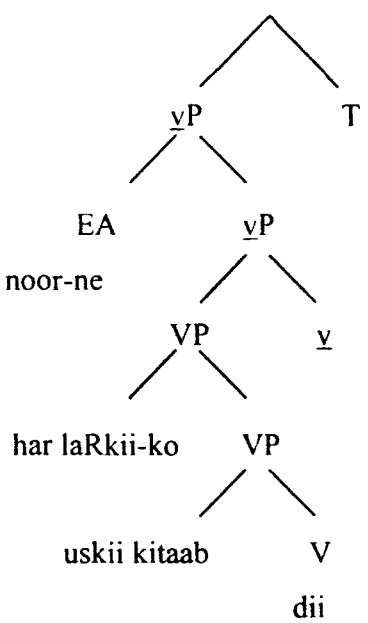
Avrutin adopts [$_{VP}$ V DP DP] structure of ditransitives where raising the pronominal to D^0 does not remove it from the c-command domain of the IO. So, it has to raise to I^0. Kidwai argues that her proposed structure for DOC removes the need for such construction specific stipulations. In her proposed structure for DOC, the IO occupies an XP-adjoined position at Spellout. At the stage that the binding theory applies, the head copy of the chain of the IO chain is rendered irrelevant, so the IO does not constitute a c-commanding binder for the pronominal contained in the DO. Her proposal of pronominal raising to D^0, then, adequately captures the anti subject orientation of the DO possessive pronominal.

So, Kidwai's proposal, following Avrutin (1994), that 'pronominals that are to receive their interpretation via syntactic binding must be included in the functional projection

of D° by LF', explains the difference in pronominal orientation in languages like Hindi-Urdu/ Russian/ Norwegian and English.English pronominals satisfy this structural requirement at Spellout, whereas Hindi-Urdu/Russian pronominals don't need to undergo LF raising. Kidwai concludes that ' because such LF raising always narrows down the range of antecedents available to the pronominal to the DP in [Spec, TP], Principle B forces the pronominal to obviate from it.'

4.3 Proposal

Though Kidwai's (2000) analysis of pronominals accounts for possessive and PP pronominals in languages such as Hindi-Urdu, Russian, Danish, I propose that pronominal interpretation also involves an Agree relation between T and the pronominal as in our proposal regarding reflexives. So, in our analysis raising is not required. Let us take the earlier example 12 (b) and look at its structure,
13.



Here, T has uninterpretable features. Its φ-set seeks a goal, matching features to establish agreement. The φ-set of T locates *uskii* as goal, agreement holding between the pronominal and the matrix T. But this operation does not delete the φ-set of T as

uskii has incomplete φ-set. So, Agree holds between the probe T and the goal *noor*, deleting its φ-set and the structural case of *noor*. This is similar to the reflxeive and T agreement. But unlike reflexives, pronominals have person features also. So, they have to agree with the subject of their clause. But Principle B bars its binding within this domain. That is why the *uskii* can not be coindexed with the subject *noor*.
This explains the 'antiorientation' effects shown by the pronominals.

4.4 PRONOMINAL INTERPRETATION IN INDIAN SIGN LANGUAGE (ISL)

In the sign languages, as space is used to make signs, the frame of reference has to be established first, and within that frame of reference the signs are to be made. It is of two kinds, one, the referents are placed in the same way as they are in the real world; this is 'real reference frame'. Another is 'abstract reference frame', where the referents are to be localized in their absence. This may or may not be similar to the way the referents are in the real world.
In the 'real reference frame', index is used to point out to the referent. In the 'abstract reference frame' also, index is used to establish the referent within that discourse. This is similar to the index in the 'real reference frame'. So, it is basically used for localization, whether it is the 'real reference frame' or the 'abstract reference frame'. It means that it is not linguistic; it has no additional meaning. For example,

1. R-A-M INDEX^{IPSI} MILK DRINK
   'Ram drinks milk.'

2. R-A-M MILK DRINK
   'Ram drinks milk.'

In ISL, the index performs various functions such as, direction, location, orientation, movement etc.

The index introduces the referent and also reintroduces it in the context of utterance further. Let us consider the following example where the index is used to localize the R-expression,

3. S-I-T-A INDEX$^{IPSI}{}_{(LOC)}$ R-A-M INDEX$^{CONTRA}{}_{(LOC)}$ $_{IPSI}$ HELP$_{CONTRA}$
'Ram helps Sita.'

In the discourse, if we have to sign-' Ram helps Sita and loves her', it will not be similar to the pronominal in the spoken language. If *her* refers to Sita in that discourse, the signer will use index to point to the locus where Sita was previously located in the frame of reference. If it refers to somebody else that also should be in that 'frame of reference' and the signer will use index. So, the question arises –whether this is a pronominal or another R-expression? It seems that there are no pronominals in ISL. ISL has no separate distinguished sign for pronominals. For all the persons, signs are articulated through index. So, the index constitutes a nominal reading in ISL.

It is important to note here that in Indian Sign Language (ISL), we do not find reflexives. On the other hand, we have emphatic constructions found in ISL. Emphatic is transcribed as SELF. Let us consider the following examples,

4 (a) rb_____ bf_____
INDEX^{SELF}-ARC ROOM INDEX$^{IPSI}{}_{(LOC)}$ CLEAN EMP^{SELF}
'We cleaned the room ourselves.'

(b) rb_____ bf___ rb___ bf_____
FEM- INDEX$^{IPSI}{}_{(LOC)}$ /S/^{IPSI} SHOE POLISH EMP^{IPSI}
' She polished her shoes herself.'

(c) rb_____ bf_____
FACE-ARC$^{SELF\ TO\ IPSI}$ /S/^{IPSI} CLOTHES WASH=CLOTHES EMP^{IPSI}
' They washed their clothes themselves.'

(d) FEM-S-I-T-A INDEX$^{IPSI}{}_{(LOC)}$ AND R-A-M INDEX$^{IPSI-2}{}_{(LOC)}$
rb_____ bf_____
^{IPSI}/V/$^{IPSI-2}$ /S/$^{IPSI-2}$ ROOM CLEAN EMP^{IPSI}
' Sita and Ram cleaned the room themselves.'

(e) UDAY INDEX $^{IPSI}{}_{(LOC)}$ MIRROR=CL[SQ] EMP ^{IPSI} bf SEE $_{FRONT}$
'Uday saw himself in the mirror.'

(f) FEM-S-I-T-A ROOM INDEX $^{FRONT}{}_{(LOC)}$ hf $_{IPSI}$ COME $_{FRONT}$. EMP ^{IPSI}
[t:ipsi]
MIRROR=CL [SQ] SEE $_{CONTRA}$
' Sita came to the room. She saw herself in the mirror.'

(g) INDEX $^{SELF\ x2}$ UDAY INDEX $^{IPSI}{}_{(LOC)}$ bf BOMBAY INDEX ^{DOWN} MEET.
bf
EMP ^{IPSI} $_{IPSI}$ INTRODUCE $_{SELF}$
'I met Uday here in Bombay. He introduced himself to me.'

neg face
bf
(h) CL [SQ]=TYPE INDEX $^{IPSI}{}_{(LOC)}$ GOOD NOT. INDEX ^{IPSI} EMP ^{IPSI} CLOSE
'The computer is not good. It closes itself.'

(Sinha, S. 2003. *Skeletal Grammar of Indian Sign Language*. Unpublished Dissertation, JNU, New Delhi)

Possessive function is performed by genetive constructions; there are no possessive reflexives in ISL. The genitive is marked by the /S/ hand shape (HS). The INDEX $_{(LOC)}$ used for the localisation of the possessor. The genitive is articulated at the sLOC, where the possessor NP/DP is localised/articulated. For example,

5 (a) rb rb
hf hf
RAM /S/^{CONTRA} MASC-SIBLING=YOUNGER PAST ANGRY
'Ram's younger brother was angry.'

bf
(b) YESTERDAY /S/ $^{SELFX\ 2}$ FEM-SIBLING=YOUNGER BOTTLE INDEX ^{IPSI}
BREAK $^{[M:\ perfect]}$
'My younger sister broke the bottle yesterday.'

rb hf
(c) RAM /S/ $^{IPSI\ X2}$ MASC-SIBLING=YOUNGER YESTERDAY CRY

' Ram's younger brother cried yesterday.'

rb_____
(d) FEM-S-I-T-A INDEX ^{IPSI} /S/ ^{IPSIX2} FATHER SICK
' Sita's father is sick.'

Our analysis in Chapter III and Chapter IV was based on operation Agree. In our proposal, reflexives and pronominals are licensed through Agreement. In ISL, there is no Agreement. So, our proposal predicts that there should not be any reflexives or pronominals in ISL. And this is what we find in ISL.

CHAPTER V
CONCLUSION

In this dissertation, an attempt has been made to study possessive reflexives and pronominals in Hindi-Urdu and Indian Sign Language from the perspective of the minimalist programme by Chomsky (2000, 2001).

Though the Standard Binding Theory (Chomsky, 1981) can account for local binding of anaphors in languages like English, it is empirically inadequate for a description of the reflexive interpretation facts in languages like Chinese, Korean, Norwegian, Russian, Dutch, Hindi- Urdu, Japanese, and Malayalam. Such languages usually employ a monomorphemic self-reflexive (which may also be used locally as a possessive reflexive) in addition to the morphologically more complex X-self reflexive as in English, Hindi-Urdu, '*apne-aap*', Chinese '*ziji*' etc. The monomorphemic self-reflexive exhibits properties that are quite distinct from those of complex reflexive. Such monomorphemic reflexives may take long-distance antecedents, whereas complex reflexives are typically local in character.

A major strand of the subsequent research on the binding theory, in the decades after Chomsky (1981), has focussed on the typological variations between languages with respect to the interpretations of reflexive elements.

The proposals for the LF-raising of reflexives (Pica,1987; Cole, Hermon & Sung 1990; Cole & Sung, 1994), treat "LD reflexives as only seemingly LD; in all analyses of this group, the relationships between the reflexives and its antecedent is covertly local in nature"(Cole and Sung ,1994: 356) and make reflexive interpretation contingent upon the φ-feature composition of reflexives themselves in interaction with locality conditions on movement.

Hestvik (1990) highlights that the existence of a typology within reflexive raising languages themselves, arguing that raising is not only limited to LF but occurs at S-structure also. Under this approach, anaphors may be marked with a feature indicating whether they are to be bound or free at S-structure or at LF. These later approaches, after

Pica (1987) show that reflexive raising interpretations are contingent upon parametric choices about the feature compositions of the reflexives themselves, the functional heads that they cliticize to, as well as the design properties of UG, such as the locality conditions on movement.

Mahajan (1990) examines the interaction of overt movement with reflexive interpretation. For him, given that movement may be covert or overt, overt movement would significantly affect reflexive interpretation.

Reflexivity approaches (Reinhart & Reuland, 1993; Lidz, 1996) take a more traditional view of anaphora where a much closer relation between anaphora and argument structure is assumed. These approaches, too, allow SE to raise but assimilate it to locality condition as restricting the domain in terms of argument structure.

Later, Progovac (1993),Davison (1998), Kidwai (1995, 2000) tied reflexive raising to the strength/ weakness of the functional projection onto which the reflexive cliticizes.

Richards (1996) foregrounds the φ-feature composition issue and assimilates into the checking theory. Within the morphosyntactic system, he allows the 'underspecified' features to interface with the morphological (φ- features).

A critical examination of the earlier approaches reviewed so far shows that the existing research on the topic exploits either all, or a subset of, four constructs in their analyses, i) φ-feature composition of reflexives, ii) locality of domain, iii) nature of INFL. and checking relations and, iv) argument structure configurations.

In this section, I evaluate the approaches reviewed with respect to these constructs and discuss the problems posed.

The anaphoric nature of the reflexives is considered to be due to lack of a full φ-set in all the approaches. Only some of the approaches, however, consider raising of reflexives to be the entailment of this lack of a full φ-set. Chomsky (1981) and (1986 b) implement the effects of reflexive raising by transferring its burden to the extension of the binding domain itself. It is only the later approaches, Cole, Hermon & Sung (1990), Cole & Sung (1994), Richards (1996), Davison (1998), Kidwai (2000) that tie up the impoverished φ-set with the movement of reflexives.

It is obvious that reflexive interpretation is contingent upon the licensing conditions for reflexive. Hence, a thorough examination of the Hindi-Urdu reflexives indicate the need of a new analysis which could properly account for the relevant issues -1) argument structure, 2) and 2) φ-features.

It should be noted that most of the minimalist approaches to reflexive interpretation make crucial use of the morphological impoverishment of reflexives. While one set of approaches (Pica 1987,1991; Cole, Hermon & Sung 1990) poses this in terms of categorial status, the other, particularly Richards (1996), adduces this to an impoverished φ-set. Under current assumptions of Bare Phrase Structure, a category that projects no further is both minimal and maximal, hence, the former approach is theoretically untenable. Furthermore, the XP-reflexives also show morphological impoverishment in terms of φ-features. Therefore, proper characterization of reflexives is that which attributes to them an impoverished φ-set, which must be licensed under Agree.

I have adopted Pylkkänen's proposals to deal with reflexives in causatives constructions. Hindi-Urdu causatives have the structure with θ_{EXT} (see Chapter III). I have proposed that the causer and the causee both are arguments of v. Only the arguments of v can be the antecedents for the reflexives. The reflexives in causatives are analyzed using this proposal. But this analysis does not explain the reflexive binding facts in participial constructions, light verb constructions and object-subject controlled predicates. It is therefore imperative that the analysis of causatives be assimilated into the general theory of how reflexive interpretation is licensed in current minimalist design of UG.

My proposal in the dissertation argues that with an operation like Agree, φ-set licensing takes place in situ, movement only possible with an EPP-feature. So, reflexive interpretation involves an Agree relation between T and the reflexive.

To explain the facts of reflexive interpretation in participials, non-finite nominalised clauses, verbal non-finite clauses and ECV constructions (light verb constructions) in Hindi-Urdu I have exploited the notion of weak phase. In all the examples, VPs are weak phases as they lack finiteness. That is why, these VPs are accessible for further operations outside and the interpretation of the embedded is at the next relevant strong phase (the matrix phase). Hence we get the long distance binding of reflexives in these constructions.

Though Principle B of the Standard Binding Theory captures the distribution of pronominals in languages like English, it can not account for possessive and PP pronominals in languages such as Icelandic, Danish, Russian, Norwegian and Hindi-Urdu). Vikner (1985) and Manzini & Wexler (1987) try to account for this phenomenon with special conditions on the antecedent of the pronoun. In addition to subjecting the pronoun to the usual binding domain requirements, a binding-domain-independent condition on the syntactic binder of the pronoun is imposed. Hestvik (1992) suggests that antisubject orientation can be explained by a generalization of the reflexive raising approach to pronominals. Although this analysis locates the difference between Norwegian-type and English-type languages quite effectively, the evidence for an XP/ X^{o} distinction is too vague. Because pronominals can have a referential use and are fully specified for φ-features in both Norwegian-type and English-type of languages, the crosslinguictic difference cannot be in their categorical status. Kidwai (2000), too, argues for a reflexive raising approach to pronominal reference. She adapts Avrutin's (1994) proposals on how the LF raising of pronominals may be built into the theory of grammar. So, Kidwai's proposal, following Avrutin (1994), that 'pronominals that are to receive their interpretation via syntactic binding must be included in the functional projection of D^{o} by LF', explains the difference in pronominal orientation in languages like Hindi-Urdu/ Russian/ Norwegian and English. English pronominals satisfy this structural requirement at Spellout, whereas Hindi-Urdu/Russian pronominals don't need to undergo LF raising.

Though Kidwai (2000) accounts for possessive and PP pronominals in languages such as Hindi-Urdu, Russian, Danish, my analysis is without pronominal raising, as it was the case with reflexives. Possessive pronominals do have person features also. So, they have to agree with the subject of their clause. But Principle B bars its binding within this domain. Hence we get the antisubject orientation effects.

In Indian Sign Language (ISL), we do not find self-reflexives. My proposal in Chapter III and Chapter IV reflected that reflexive and pronominals are licensed through Agreement. In ISL, there is no Agreement. So, we predicted that there should not be any reflexives or pronominals in ISL and that is what we get.

To conclude, the reflexive binding facts in causative constructions provide some evidence for us to assume that $\underline{v}$P, not the lexical VP, is the domain for syntactic binding. It has to be further investigated which argument becomes the argument of $\underline{v}$ and why (i.e. what are the conditions).

The local character of the morphologically more complex X-self reflexive in Hindi-Urdu, '*apne-aap*' can be due to the fact that the φ-set of '*apne*' gets valued by '*aap*' which is the lexical self.

The reflexive binding facts in Hindi-Urdu further suggest that weakness or strength of a phase does not follow from EPP. It surely can be a property of a phase but strength does not lie in its EPP-feature. It follows from the principles of feature-composition of the lexical verb (the VP determines whether $\underline{v}$ is φ-incomplete or complete and that in turn determines T).

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