# Semantically Explaining Grammatical Properties of Two Types of Relative Clauses in Oriya

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## 1. Background and the Aim

Oriya (an Indo-Aryan language, spoken in Orissa, India) has such two types of relative clauses as are illustrated in (1) and (2). (It has other types that will not concern us.)

(1)　　jie　　　seThi basich-i,　se　　mo saanga.
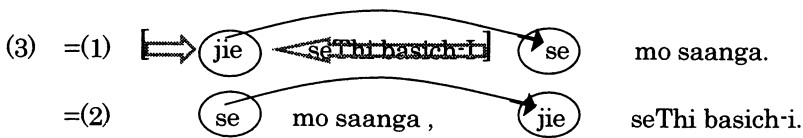　　　*who(R).NOM there is.sitting-3s　he.NOM my friend*
　　　'The one who is sitting there is a friend of mine.'

(2)　　se　　mo saanga, jie　　　(ki)　seThi basich-i.
　　　*he.NOM my friend　who(R).NOM PRT　there　is.sitting-3s* '=(1)'

The parts and types of sentences such as above are referred to as follows. Of the two constituent clauses of a sentence, the one containing the relative pronoun (the pronoun beginning with *j-* ) will be called as **relative clause**, and the other, as **head clause**. The coreferent noun phrases in the relative and head clauses are respectively called **relative phrase** and **head phrase**. Of the two types of relative clauses, the one which precedes the head clause, as in (1), will be called **left-adjoined** relative clause, and the one which follows the head clause, as in (2), **right-adjoined** relative clause. The particle *ki*, cliticized to the relative pronoun, occurs optionally in the right-adjoined relative clause, but never in the left-adjoined relative clause.

The referents of the relative and head phrases are determined as schematically illustrated in (3). With the left-adjoined relative clause such as (1), the relative phrase (*jie*) gives as its referent an instance of entity fitting into the setting given by the relative clause, and then the head phrase (*se*) anaphorizes (that is, adopts the referent of) the relative phrase. With the right-adjoined relative clause, the head phrase presents its referent and then the relative phrase (*jie*) anaphorizes the head noun phrase.

(3)  =(1)  ⟹ (jie) ◁ s̶e̶T̶h̶i̶ ̶b̶a̶s̶i̶c̶h̶-̶i̶ (se)   mo saanga.

   =(2)   (se)  mo saanga ,   (jie)   seThi basich-i.

These semantic aspects explain differential application of structural constraints to the two constructions. Sections 2 – 4 to follow each discuss one such case.


# 4.  (I) Structural (Un-)Boundedness of the Relaviztion

A first difference between left- and right-adjoined relative clauses concerns the structural boundedness or unboundedness. Relativization with a left-adjoined relative clause *is* bounded by some structures, while relativization with a right-adjoined relative clause is not.

Left-adjoined relativization is bounded by some clause structures. The force of bounding varies from structure to structure. It is most robust with the structures of relative clause, bracketed in (4), and of the adversative conditional clause, bracketed in (5). (Both clauses are finite, in which the verb conjugates for person and number.) Applying left-adjoined relativization beyond these structures results in totally unacceptable sentences. Identical subscripts indicate the sameness in reference. (The boundedness of relativization by a relative clause, as in (4), is observed by Kachru 1978:20 for Hindi, and Mohanan 1984:375 for Malayalam.)

(4)  *  [jeu~ jhia $_i$  jaahaa $_j$ rosei kar-e],  taahaa $_j$ tume  khaa-ibaa-ku caahuch-a,
     *which(R) girl what(R)  cooking does-3s  it  you.NOM eat-GER-OBJ are.wanting-2p*
     se $_i$   kie?
     *she.NOM who(Q).NOM*
     'Who is she such that $_i$ [you want to eat the thing $_j$ which $_j$ that girl $_i$ cooks]?'

(5)  *  [jie $_i$     aas-u    naa kaahi~ki]  tume    khusi heb-a     ni,
     *who(R).NOM come.OPT-3s or why     you.NOM   glad  will.become-2p not*
     semiti $_i$  loka-ku Daakib-a  ni.
     *of.that.sort man-OBJ will.call-2p not*
     'Don't invite such $_i$ a man as [even if he $_i$ comes you won't be glad].'

This fact derives in this way. (i) The relative pronoun can only get interpretation in relation to its context. (ii) It is prone to get interpreted in a minimal constituent containing it.

The relative pronoun can only occur within one of such contexts as are able to

determine its interpretation. Thus, it cannot occur in a declarative clause: Sentence (6) is judged either as simply unacceptable or as involving a colloquial abbreviation of *jie hele* 'anyone: who(R).NOM become-COND'.

(6) * jie   aas-i  paar-e.
   *who(R).NOM come-CP can-3s*

The concessive clause is one of the contexts able to host a relative pronoun in it.

(7) jie $_i$   aas-u  naa kaahi~ki mu~ khusi heb-i   ni.
   *who(R).NOM come.OPT-3s or why*  *me.NOM glad will.become-1s not*
   'Whoever comes I won't be glad'

The relative pronoun can scope exactly over the finite concessive clause, as in (8), but cannot do so beyond it, as in (5).

Incidentally, the fact is not that simple with *non*-finite concessive clauses. A non-finite concessive enables a relative pronoun to occur in it, as in (7), and does not prevent the relative pronoun from having a scope beyond it, as in (9).

(8) jie   aas-ile bi  mu~ khusi heb-i   ni.
   *who(R).NOM come.COND even*  *me.NOM glad will.become-1s not*  '=(7)'

(9) jie   aas-ile bi  tume khusi heb-a ni,
   *who(R).NOM come.COND even*  *you.NOM glad will.become-2p not*
   semiti $_i$ loka-ku Daakib-a ni.
   *of.that.sort man-OBJ will.call-2p not*  '=(5)'

Right-adjoined relativization, unlike left-adjoined relativization, *can* go into a relative clause as in (10), and into an adversative conditional clause as in (11).

(10) se $_i$  kie,
   *she.NOM who(Q).NOM*
   [jeu~ jhia $_i$ (ki) jaahaa $_j$ rosei kar-e], taahaa $_j$ tume khaa-ibaa-ku caahuch-a?
   *which(R) girl PRT what(R) cooking does-3s it  you.NOM eat-GER-OBJ are.wanting-2p*
   'Who is she such that $_i$ [you want to eat the thing $_j$ which $_j$ that girl $_i$ cooks]?'

(11) emiti  loka-ku Daakib-a ni,
   *of.this.sort man-OBJ will.call-2p not*
   [jie $_i$  (ki) aas-u  naa kaahi~ki] tume khusi heba   ni.
   *who(R).NOM PRT come.OPT-3s or why   you.NOM glad will.become-2p not*
   'Don't invite such $_i$ a man as [even if he $_i$ comes you won't be glad].'

In (10) and (11), the particle *ki* is preferably present to make it explicit that the relative

phrase refers to a phrase preceding it. The possibility of sentences like (10) (a case of right-adjoined relativization out of a left-adjoined relative clause) is also noted by Hock (1989:109,122,fn.14) for Sanskrit and Hindi, and illustrated with Sanskrit (12) and its Hindi translation.

(12)　Sā $_i$　vai　daivī　vāg

　　　*it(f)　surely　divine　speech(f)*

　　　[yayā $_i$　　　　yad yad $_j$　　　eva　vadati]　　tad tad $_j$　bhavati

　　　*which(R)(f).INST　what(R) what(R)(n) exactly say-3s　　it　it(n)　occur-3s*

　　　'Divine speech is a faculty such that $i$ [what you speak by means of it $i$, that comes about].' (*Bṛhad-A-raṇyaka-Upaniṣad* 1.3.27, cited in Hock p.109. Translation modified and gloss added. *(f)*=feminine, *(n)*=neuter)

Thus, the structural position of the relative phrase in the relative clause matters left-adjoined relativization but not right-adjoined relativization. (In the latter case, the relative phrase needs to come linearly toward the beginning of the relative clause. See section 5.) The contrast between the two relativization strategies can be accounted as follows. In left-adjoined relativization, the referent of the relative phrase is fixed by the relative clause, which restricts the range of potential referents. The relative clause is delineated in structural terms: It cannot expand over the minimal clause eligible for this purpose, which is the smaller relative clause in (4) and the adversative clause in (5). This requirement is a case of the "chain-of-command principle" of Langacker (1969): If (i) two identical nodes A1 and A2 both command some other node B; and (ii) A1 commands A2, and (iii) A2 does not command A1; then any transformation involving A and B can apply only with respect to A2 and B and not A1 and B. In (5), the relative clause is A1, and the concessive clause is A2, and the relative phrase is B.

In the right-adjoined relative clause, the referent of the relative phrase is fixed by anaphorizing the head phrase, without reference to the expression in its context. The relative clause here is imparting an attribute to the referent fixed in the head clause. This implicates no concern with the structure of the expression containing the relative phrase. Accordingly no effect is observed of the structural embedding of the relative phrase.

It now remains to explain why English relativization cannot operate into a relative clause, a well-known fact: *the book$_i$ which$_i$ you know the man who wrote __$_i$: *the girl$_i$ who$_i$ you want to eat a thing which has been cooked by __$_i$. The relative phrase follows the antecedent, and therefore, on our present view, it anaphorizes the antecedent. The process of fixing the referent of the relative phrase does not implicate reference to the

structure of the relative clause. However, in English, reference to the structure of the relative clause is made, for a reason not pertinent in Oriya. English lacks such unmarked ordering possibility as a structurally deeply embedded relative phrase would happen to be placed at the beginning of the whole clause, which is available in Oriya. In order for the relative phrase to occur at the beginning of the relative clause, it must be displaced through the structure of the relative clause, thereby marking its reference to the structure. This operation is constrained by the Chain-of-Command Principle.

### 3. (II) (Im-)Possibitlity of a Bare Noun as the Head Phrase

The second difference concerns the possibility of the head phrase being bare, that is, without a demonstrative pronoun in it. It is impossible in a left-adjoined relative clause, and possible in a right adjoined relative clause.

A left-adjoined relative clause does not admits a bare head phrase (Srivastav 1991:648−650, Subbarao 1984:12−13). The sentence in (13) is only possible with the demonstrative pronoun *sei* 'that'.

(13)   jeu~   pilaa kaali   aasithil-aa,   *(sei) pilaa mo saanga.
       *which(R) child   yesterday had.come-3s       that child   my friend*
       'The child who came yesterday, that child is my friend.'

The necessity of the demonstrative pronoun is motivated by the fact that the head phrase anaphorizes the relative   phrase. (Eessentially the view of a reviewer of Srivastav 1991, though rejected in p.650,fn.14, ibid.)

I should note that the demonstrative pronoun is also necessary if the relative clause has non-restrictive (rather than restrictive) interpretation, as in (14). (Non-restrictive usage with a left-adjoined relative clause is confined to a narrow range of cases. See Yamabe 1998.)

(14)   jeu~   maami kaanduthil-aa,   *(sei)   maami ebe   hasuch-i.
       *which(R) Mami was.weeping-3s       that   Mami   now   is.laughing-3s*
       'Mami, who was weeping, is now laughing.'

This restriction is a particular case of a more general restriction applicable also outside the relative clause construction. With the left-hand adjunction of a noun phrase (rather than a relative clause), as in (15) and (16), the noun phrase in the head clause cannot be bare but calls for a demonstrative pronoun.

(15)  kaali    aasith-ibaa    pilaa,    *(sei) pilaa   mo saanga.
      *yesterday  had.come-GER  boy           that  boy   my friend*
      'The child who came yesterday, (that) boy is my friend.'

(16)  kaanduthib-aa    maami,    *(sei) maami    ebe    hasuch-i.
      *be.weeping-GER   Mami      that Mami       now    is.laughing-3s*
      'Mami who was weeping, she is now laughing.'

A right-adjoined relative clause does admit a bare head phrase. Here the direction of anaphora is reversed so that that the head phrase does not anaphorize any phrase.

(17)  (sei) Mami ebe   hasuch-i,    jie           kaanduthil-aa.
      *that Mami   now is.laughing-3s   who(R).NOM   was.weeping-3s*
      'Mami is now laughing, who was weeping.'

Similarly, the right-hand adjunction of a noun phrase does not necessitate a demonstrative pronoun, as in (18).

(18)  (sei) maami ebe hasuch-i,       kaanduthib-aa maami.
      *that Mami   now is.laughing-3s be.weeping-GER       Mami*
      'Mami is now laughing, Mami who was weeping.'

I will cite three constructions below, in which the relative pronoun is going with a bare head noun. They are possible only with the left-adjoined, but not right-adjoined, relative clause. Functionally, they bring fresh information into the discourse. In them the head phrase introduces its referent into the discourse, while with a demonstrative pronoun as in (2) it presents its referent as already given in the discourse.

One is to reveal the identity of the head and relative phrases, as in (19).

(19)  a.   goTie maatra desa-re    sabu dharma-ra loka   rahuch-anti,
           *one    only  country-LOC all   religion-GEN man   are.living-3p*
                    jaahaa-ra      naama ki   bhaarata.
                    *who(R)-GEN    name  PRT  India*
           'There is only one country in which people of all religions live;
           its name is India.'

      b.   jaNe maatra loka ahinsaa   dvaaraa samastan-ku jaya   kari   paarithil-e,
           *one   one    man non-violence by        all-OBJ      victory do-CP  could-3p*
                    jie           ki  heuch-anti       mahaatmaa gaandhi.
                    *who(R).NOM PRT was.becoming-3p  Mahatma     Gandhi*
           'Only one person was capable of defeating everyone by non-violence;

that is, Mahatma Gandhi.'

The relative phrases are refering to the indefinite head phrases *goTie maatra desa* 'only one country' in (19a) and *jaNe maatra loka* 'only one person' in (19b).

Another usage involves *jathaa/jemiti* 'which.way(R)', which is followed by a pause (or a written dash) and can be translated as 'For example' or 'Thus'. (For a mention of the Hindi counterpart, *jaise* 'for example', as a form of the relative pronoun, see Sharma 1969:99.) A pause occurs after *jathaa/jemiti*, as indicated with a dash in (20).

(20)　　apaadaana kaaraka-re　　paancami bibhakti hu-e.
　　　　*removal　　case.relation-LOC　fifth　　　case　　become-3s*

　　　　jathaa　　　　　—　　gacha-ru phaLa jhaD-ilaa.
　　　　*in.which.way(R)　　tree-ABL　fruit　fell(past)-3s*

'For the case relation of removal the fifth [=ablative, *-ru*] case occurs. For example, *gacharu phaLa jhaDilaa* "A fruit dropped down from the tree".'
　　　　　　　　　　　　　　　　　　　(Mahapatra and Das 1994:49, in the text)

The relative pronoun *jathaa* is anaphorizing the whole head clause.

The usage last to be mentioned is to reveal a property. Sentence (21a) is acceptable as an answer to the question "What sort of guy is Nabin?": Its relative clause imparts the property sought for. The relative phrase refers to *emiti pilaa* "such a guy.' In (21b), *\*emiti* 'like this' yields a meaningless sentence. The sentence with *semiti* 'like that' does not serve as an appropriate answer.: It would be presupposing the property as given in the discourse, meaning: "Given that you are looking for such a person, Nabin is one."

(21)　a.　nabina　{emiti/ semiti} pilaa,　jaahaa-ku　ki　samaste　bhalapaa-aanti.
　　　　　*Nabin　　like.this/like.that guy　　who(R)-OBJ　PRT　all.NOMJ　like-3p*
　　　　　'Nabin is such a guy as everybody likes him.'

　　b.　jaahaa-ku　samaste　bhalapaa-anti,　nabina　{\*emiti/ #semiti} pilaa.


## 4.　(III) (Im-)Possibility of the Relative Pronoun + the Particle *bi* 'ever'

The third difference between the left- and right-adjoined relative clauses concerns the possibility of the relative phrase with the particle *bi* 'also, even, ever' , to convey indifference about the identity of the referent. It is possible in a left-adjoined relative clauses, as in (22a), but not in a right-adjoined relative clause, (22b). The observation is originally made by Verma (1971:119) for the Hindi cognate *bhii* 'ever'.

(22) a. jie      bi   paDh-e,   se      paas    hu-e.
     *who(R).NOM ever study-3s   he.NOM  passed  become-3s*
     'Whosoever studies passes the exam.'

   b.  se    paas hue,   jie (*bi)   paDh-e.        '=(22a)'

The relative pronoun, when added with the particle *bi*, ceases to be anaphoric, hence the ill-formedness of sentence (22a). (The relative pronoun + *bi* refers to something lying outside the currently immediate domain of attention, something incompatible with being anaphoric. See Yamabe 1999.) The anaphorizing role of the demonstrative pronoun in (22a) is not affected by the addition of *bi* to the relative pronoun.


## 5. (IV) The Linearly Regulated/Free Word Order of the Relative Phrase

The difference last to be mentioned concerns the linear (as distinct from structural) position of the relative phrase. In a right-adjoined relative clause the relative phrase occurs toward the beginning of the clause, while in a left-adjoined relative clause it is free from that regulation. As for the facts of right-adjoined clauses, we find the descriptions in the literature in Indo-Arian languages to diverge from each other.

According to Dasgupta (1983:29 – 30), in Bengali right-adjoined relatives, the non-clause-initial positioning of the relative pronoun as in (23a) is 'acceptable, though less than' the clause-initial positioning. As for his example in (23a), it is to be noted that the relative pronoun is not just in non-clause-initial position, but it is very far away from it, preceded by more than one constituent, and that even then the sentence is only less than perfect ('?') rather than unacceptable.

(23) a. ? o ki     ni-te ceyechil-o  [ tumi o-ke jaa     ni-te    da-o  ni ] ?
        *he what(Q) take-INF wanted-3     you  he-OBJ what(R) take-INF gave-2 not*
        'What did (s)he want to take that you didn't let him/her take?'

   b.      o ki ni-te ceyechil-o [ jaa tumi o-ke ni-te da-o ni ] ?

                        (Dasgupta 1983, notation and gloss modified. *INF=infinitive*)

Kachru's (1978:21) comment comes near to this: [In the right-adjoined relative clause] 'the relative marker J [=relative pronoun] is generally moved to the front of the relative clause. [...] [In the left-adjoined relative clause] there is no preference attached to such fronting of the relative marker.' According to my observation for Oriya, the preference is slight but discernible: The further away from the beginning the relative phrase is, the more uncommon (if not unacceptable) the sentence is felt to be.

Some find the preference to be absolute. Bal (1990:75−76) reports the observation in Oriya, attributing it to Probal Dasgupta (p.80,fn.6), that in right-adjoined relatives, the relative must be at the beginning of the relative clause, as in (iiib) and (iiic).

(24)  a.  [ jaadu jaahaa-ku maarithil-aa ] , se     aaji   aasib-a.
          *Jadu   who-OBJ   had.beat-3s       he.NOM today will.come-3s*
          'The one whom Jadu beat will come today.'

      b.  *  se aaji aasib-a,   [ jaadu jaahaa-ku maarithil-aa ].

      c.     se aaji aasib-a,   [ jaahaa-ku jaadu maarithil-aa ].

                              (Bal 1990:75−76, gloss adapted, translation modified)

The ungrammaticality of sentences like (25b) in Hindi-Urdu is mentioned by Bains (1989:78,104,106,139,141).

Still others find no preference of this kind, making no distinction on the matter between the left- and right-adjoined types. According to Bhatia (1993:57−58), in Punjabi, the relative pronoun may remain in non-initial position, whether the relative clause (embraced in [ ]) follows the head clause, as in (25a), or immediately follows the head noun, as in (25b), or precedes the head clause, as in (25c).

(25)  a.  ma~i   ó   kataab vekhii  [ raam ne  ji (s)  nüü   likhiaa ].
          *me.NOM  that  book   saw       Ram ERG  what(R) OBJ  wrote*
          'I saw the book which Ram wrote.' (gloss modified. *ERG=ergative*)

      b.  ma~i   ó   kataab   [ raam ne  ji (s)  nüü   likhiaa ] vekhii.
          *me.NOM  that book         Ram ERG  what(R) OBJ  wrote        saw*

      c.  [ raam ne  ji (s)      kataab nüü  likhiaa ]  ma~i  ó  vekhii.
          *Ram ERG whcih(R)   book OBJ         wrote     me.NOM it  saw*

Gambhir (1981:164) gives judgments in Hindi that go with (25b).

Generalizing over the above on a right-adjoined relative clause, there are two aspects to the constraint as a "tendency": (i) The relative phrase most typically comes clause-initially, and (ii) the degrees of tolerance for the deviation from this vary from language to language, and within one language from speaker to speaker. The relative phrase here is referring to something preceding it (and has no discoursal function related to prominence such focus), so it preferably comes early. Note that tendency can be better explained in interpretative terms rather than in structural ones such as movement to some hierarchical position.. In a left-adjoined clause, the relative phrase is not anaphorizing, so no comparable tendency is observed.

# References

Bains, Gurprit Singh 1989 *Complex structures in Hindi-Urdu: explorations in government and binding theory*, doctoral dissertation, New York University.

Bal, Bijoy Kumar 1990 *Comp and complementizers in Oriya and English*, doctoral dissertation, Central Institute of English and Foreign Languages, Hyderabad.

Bhatia, Tej K. 1993 *Punjabi: A cognitive-descriptive grammar*, London, Routledge.

Dasgupta, Probal 1983 Relative clauses and constituent questions in Bangla (Bengali), *Bulletin of the Deccan College Research Institute* 42:25−39.

Gambhir, Vijay 1981 *Syntactic restrictions and discourse functions of word order in Standard Hindi*, doctoral dissertation, University of Pennsylvania.

Hock, Hans Henrich 1989 Conjoined we stand: theoretical implications of Sanskrit relative structures, *Studies in the Linguistic Sciences* 19:93-126.

Kachru, Yamuna 1978 On relative clause formation in Hindi-Urdu, *Linguistics* 207:5−26.

Langacker, Ronald W. 1969 On pronominalization and the chain of command, in D. A. Reibel, and S. A. Schane, eds., *Modern studies in English*, Englewood Cliffs, NJ, Prencice-Hall.

Mahapatra, Narayan and Sridhara Das 1943/1994 *sarbasaara byaakaraNa*. [An essential grammar.] Cuttack: New Students' House. 3rd edition, 1994.

Mohanan, K.P. 1984 Operator binding and path containment condition, *Natural Language and Linguistic Theory* 2:357−396.

Sharma, S.N. 1969 *Hindi grammar and translation*, fourth edition, Bombay, Lakhani Book Depot.

Srivastav, Veneeta 1991 The syntax and semantics of correlatives, *Natural Language and Linguistic Theory* 9:637−686.

Subbarao, K.V. 1984 *Complementation in Hindi syntax*, Delhi, Academic Press.

Verma, Manindra K. 1971 *The structure of the noun phrase in English and Hindi*, Delhi, Motilal Banarsidass.

Yamabe, Junji 1999 The meaning of the particle *bi* 'also, even', *The proceeding of the 119th meeting of the Linguistic Society of Japan*, pp.165−170.

_____ 2001 Subjectivity and objectivity in the grammar of Oriya, *Journal of the Japanese Association for South Asian Studies* 12:161−182.

**Pronunciation**  aa=[a], a=[ɔ], D,T,L=retroflexes, ~=vowel nasalization

**Abbreviations**  ABL=ablative, COND=conditional, CP=conjunctive participle (roughly, an adverbial form of a verb), NOM=nominative, GER=gerund (roughly, a nominalized form of a verb), LOC=locative, OBJ=objective, OPT=optative, PRT=particle *ki,* p=plural, (Q)=interrogative pronoun, (R)=relative pronoun, s=singular, 1, 2, 3=1st, 2nd, 3rd person