Correlative and Free Relative constructions in Odia and English

Kalyanamalini Sahoo a,*, Lars Hellan b

a Department of English, University of Artois, Faculty Jean Perrin Lens, France.
b Department of Language and Literature, Norwegian University of Science & Technology, Dragvoll Trondheim, Norway

* Corresponding author Email: kshah.shabadi@univ-artois.fr

Abstract: The present paper investigates multiple Correlative Constructions (CC) in Odia and sketches a combined semantic and syntactic analysis. The paper describes Correlative Constructions and related constructions in Odia, with a view especially to its quantificational systems, one residing in lexical quantifiers, and one in the clause combinations which constitute CCs. Over the last decades, a growing literature has addressed similarities between CCs as instantiated in languages on the Indian subcontinent and types of Free Relatives, e.g., in English, as they occur in positions adjoined to clauses, here to be called Adjoined Free Relatives (AFRs). AFR constructions supplement lexical quantification in English in a parallel way to CCs in Odia, and we explore possibilities of representing CCs and AFR constructions within a common semantico-syntactic frame of analysis. We show how the quantificational effects of CCs can be derived from their character as relative constructions, residing in what we call co-targeted predicates, as opposed to lexical encoding of quantificational meaning through items such as 'each', 'every' and the like. We thereby describe two distinct strategies for obtaining partially similar quantificational effects, a finding which applies to CC/AFR constructions cross-linguistically.

Keywords: Correlative construction, Free relative clause, Quantification, Odia

1. Introduction

The notion ‘correlative’ is here understood as alluding to the correlation between a relativizing element in a subordinate clause and a pronominal element in the adjacent main clause. The notion has a wider usage, cf. Lipták’s (2009) summarizing statement from a cross-linguistic comparison of uses of the term: “This is the sense in which grammars refer to "correlative (adverbs)" or "correlative subordinators" to describe pairs of words like ‘if...then...’, (al)though... yet/nevertheless..., as... so..., either... or... (Quirk et al. 1972, Chung 2004, Johannessen 2005). The term correlative is also used to refer to combinations of a clause and a pronominal linked to it.”

The construction type here called ‘correlative construction’ (CC) is widespread throughout the Indic languages and has been amply noticed and analyzed in the literature, for instance for Bengali, Dasgupta (1980), for Assamese, Masica (1991), for Hindi-Urdu, Srivastav (1991), Bhatt (2003, 2005), Mahajan (2000), Butt, King and Roth (2007), and for Dravidian languages, Krishnamurti (2003), Subbarao (2008, 2012). Such constructions consist of a sequence of two finite clauses, one of which contains nominal elements whose morphological form is typically of a form with je- as initial segment, and the other clause has pronominal elements corresponding to each je- element.

The construction type is found also in Odia (earlier written ‘Oriya’), spoken in Odisha by around 42 million speakers, and we here offer a description of the construction, with a view especially to its quantificational systems.

An instance of a CC from Odia with one pair of corresponding elements is given in (1), where the element jāhā ‘what(ever)’ in the first clause has a corresponding pronominal element jāhā ‘that’ in the following clause (indicated by co-indexing):

(1) ʃūmε jāhā, rāng’a mū jāhā, kₐe
    You what (ever) cook I that eat
    PRON PRON V PRON PRON V
'I eat what (ever) you cook'

In (2), there are two such correspondence pairs, and in example (3), there are three pairs:

(2)  
\[
\text{\begin{tabular}{llllll}
    jeũ & puā & jeũ & f'ıaku & dekʰilā & se\v \\
    whichever & boy & whichever & girl-aCC & saw & he \v
    PRON & N & PRON & N & V & PRON \v
\end{tabular}}
\]

'Whichever boy saw whichever girl, he liked her.'

(3)  
\[
\text{\begin{tabular}{llllll}
    jeũ & puā & jeũ & f'ıaku & jeṭeperimānare & b'apāe \v \\
    whichever & boy & whichever & girl & how much & like-prs-3-sg \v
    PRON & N & PRON & N & ADV & V \v
    sej & madhyatāku & seṭeperimānarek & b'apāe \v
    she & too & him & that much & like-prs-3-sg \v
    PRON & ADV & PRON & ADV & V \v
\end{tabular}}
\]

'Whichever boy likes whichever girl however much, she also likes him that much.'

In (2), the subject jeũ puā ‘whichever boy’ in the first clause is co-indexed with the subject pronoun se ‘he’ in the second clause, and the object jeũ f'ıaku ‘whichever girl’ of the first clause is co-indexed with the object pronoun țaku ‘her’ in the second clause. In (3), the added adverbial phrase adds another correspondence. In none of these examples is there any mark of sub-ordination or co-ordination in either of the clauses.

We will refer to the je-element in a CC as ‘REL’ (alongside as ‘the je-element’), and to the corresponding pronominal element in the second clause as ‘PRON’. The clauses we call the REL-clause and the PRON-clause, respectively.

As indicated in the glossing of (1), the je-element can here be read either with an ‘all-invoking’ force or indicating that one specific thing is in question. This latter option is not available in (2) and (3), thus, when there are more than one je-item, they both/all have the all-encompassing reading.

The je-form can also be used as a relative marker in what may be called a ‘standard’ relative clause construction (SRC), as in (4a), where the bracketed clause is embedded in a noun phrase; it is also used in FRs, as exemplified in (4b), where the options of all-encompassing and specific readings are as in (1). Moreover, a possibility obtaining in Hindi, but not in Odia, is for the REL clause to occur embedded in an NP, as in English, then allowing only a single je-element. (4c) illustrates the point.

(4)  
\[
\text{\begin{tabular}{llllll}
    a. & s/he & [who come-past perf] & my-father & (is) \v
    sie & jie āsit & ile & mora bāpā & (aṭanti) \v
    & & & s/he & who & had come & is my father. \v
    & & & & & & 'He who had come is my father.' \v
    b. & my son eats, I him whatever give \v
    mo pua & kʰāe, mű tāku jāhā die \v
    & My son eats, I him whatever give \v
    & 'My son eats whatever I serve him.' \v
    & ['My son eats (that) whatever I serve him.'] \v
    c. & 'The girl who is standing is tall.' \v
    vo laRkii & jo khaRii hai & lambi hai & (Hindi, cf. Srivastav, 1991 (5c)) \v
    & DEM & girl & REL & standing is & tall & is \v
    & 'The girl who is standing is tall.' \v
\end{tabular}}
\]

The contrast between CCs and ‘standard’ relative constructions in languages like English is thus that the relative clause is, as it were, ‘outsourced’ from the NP of which it is predicated to a position outside the clause containing the NP, and that from this position it can modify more than one NP. This would seem impossible if the
relative clause were situated inside an NP, thus two features being logically connected. With few exceptions to be mentioned below, the correlation between a je-element and a PRON-element is obligatory, which would follow from the status of the REL-item as indeed being an operator of a clause being predicated of a PRON-element (Andrews, 1975).

A consolidated account of CCs is Srivastav (1991) for Hindi. Syntactically, she assumes that the REL-clause is adjoined to the PRON-clause, the latter thus acting as head of the CC. Semantically she treats the REL-clause as a generalized quantifier with operators binding the PRON-elements in the PRON-clause, to represent the circumstance that relative to each PRON-element, the REL-clause is a predicate (like a standard relative clause) of the referent of that PRON-element. Srivastav’s analysis is in most respects used also here.

European languages do not have CCs but do use FRs in similar ways as the REL-clause of a CC, here to be called Adjoined Free Relatives (AFRs); FRs otherwise occur freely in all positions allowing for an NP. In all positions, FRs allow for the same kind of alternation between specific readings and all-encompassing readings as seen for CCs, again such that if containing more than one wh-element, all the wh-elements have the ‘all-encompassing’ reading. Parallels between AFR constructions and CCs are explored in Dayal (1995, 1996), who argues that Hindi-Urdu correlatives are internally headed free relatives, and explorations addressing similar phenomena in languages which do not have CCs include Caponigro (2008) for Romanian and Demirok (2017) for Turkish, as well as Jacobson (1995) for English.

In section 2, first, we present relevant phenomena in Odia.

2. CCs and related phenomena in Odia

2.1 Ordering of the clauses of a CC

If the je-clause contains only one REL-element, the REL-clause can either precede or follow the PRON-clause, whereas if there are many REL-elements, the REL-clause can only precede the PRON-clause. This is illustrated in (5):

(5) a. jeũ ꫀiati ꫀiɡta ɡāut‎pبلاغ se. mora b̥aunī
   which girl song is singing she my sister
   ‘The girl who is singing a song is my sister’

b. sei ꫀiati mora b̥aunī, jie, ꫀiɡta ɡāut‎pبلاغ
   that girl my sister, who song is singing
   ‘The girl who is singing a song is my sister.’

c. (cf. (2))

*sei puati, sei ꫀiaku, pasanɡa kalā, jiei jāhāku, ɡek'ilā
   that boy that girl-acc like did who whom see-Pst
   ‘Whichever boy saw whichever girl, he liked her.’

2.2 je-words and quantifying ke- words

Example (6) shows a pattern partly similar to (2) and (3), but using elements starting with ke-; we call them ke-words, as opposed to je-words. Geis (1985), von Fintel (1994), Izvorski (1997), Michaelis & Lambrecht (1996), among others have suggested that these constructions are related to correlatives.

Correlatives with a single REL in Hindi have been studied by Dwivedi (1994) and Srivastav (1991). Dwivedi claims that the correlative is structurally a co-ordinate construction. Thus, the relative phrase is not adjoined to the main clause, it is asymmetrically co-ordinated with it. Following Williams (1994), she calls it a ‘double headed’ construction.
A similarity to the cases in 2.2 resides in the circumstance that items in a first clause correspond to pronouns in a second clause, apparently in structurally similar ways.

There are however differences, one being that the first clause in a ke-construction is explicitly subordinated, as a conditional ‘if’-clause. As shown in (7), je-elements are excluded from a jaḍi ‘if’-construction:

(7) a. *jaḍi jeū pua, jeū jhiaku jeṭe parimānare, b'alarapāe
   If which boy which girl-acc how much like-prs-3-sg
   sej maq'ya tāku, seṭe parimānare, b'alarapāe
   she too him that much like-prs-3-sg

‘If whichever boy likes whichever girl however much, she likes him that much too.’

b. *jeū p'amiānē, jeū puamānanku, gelkile, samaste, mishi
   whichever girls whichever boys-acc saw all together
   piknik jibāpāin b'ābut j'i'anti/b'ābile
   picnic for going are thinking/ thought

‘Whichever girls saw whichever boys, they are planning/planned to go for a picnic together.’

The examples in (8) moreover show that ke-words need not be correlated with a PRON at all.

(8) a. kehi(b) moṭe kitf'ala deini
   Nobody(even) me anything has not given
   ‘Nobody has given me anything.’

b. kehi je moṭe kif'ala gelba mū tāhā ādōu b'ābibina'ili
   somebody that me something give.fut I that at-all thought-not
   ‘I had never expected that somebody would give me something’

c. jaḍi kehi kitf'ali, karutshi, tāhele tākui tāhā, karibāku ɡia
   if somebody something. is doing then him that to do let

   ‘If somebody is doing something, let him do that.’

Example (9) illustrates that a je-word cannot be used without a PRON-item:

(9) *jeū p'amiānē, jeū puamānanku, gelkile, samaste, mishi
   whichever girls whichever boys-acc saw all-together
   piknik jibāpāin b'ābut j'i'anti/b'ābile
   picnic for going are thinking/ thought

‘Whichever girls saw whichever boys, they are planning/planned to go for a picnic together.’

These are thus clear differences between je-words and ke-words in the ways they function in quantification. Looking further at ke-words, in the examples above, the ke-words can be interpreted as quantifiers. In (10), they function as question words (Odia using the in-situ-strategy for constituent questions).
(10)  a.  eĩ  barsa  kie  gyānapiṭ’a  puraskāra  pāilā
    'Who won the Gyanpith award this year?'
  b.  kie  ketebele  kāhāku  kanā  ġelā,  mū  kitf’on  jānini
    'I don’t know who has given whom what and when.'

The ke-elements that can be used as quantifiers in constructions like (6) are the following:

Table 1 below shows ke- words which are used as quantifiers as well as question words. (In Dravidian languages, the interrogative and the relative uses have the same form; cp. Bhat, 2004: 175-199 for a general discussion of neutralization with reference to relatives and interrogatives).

**Table 1.** The ke-words having two functions: quantification and questioning

<table>
<thead>
<tr>
<th>ke-words</th>
<th>Question word</th>
<th>Quantifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>keũṭʰāreloc</td>
<td>Where</td>
<td>Somewhere</td>
</tr>
<tr>
<td>ketebele</td>
<td>When</td>
<td>Sometimes</td>
</tr>
<tr>
<td>kebe</td>
<td>When</td>
<td>Sometimes</td>
</tr>
<tr>
<td>kāhākuacc</td>
<td>Whom</td>
<td>Somebody</td>
</tr>
</tbody>
</table>

Most of the ke-words have a je-counterpart, as illustrated in Table 2. As Sahoo & Auwera (2019) have shown, there is a paradigmatic link between relatives and interrogatives, and it seems typical for some of the South-Asian languages. Bhat (2004: 181) also shows a similar link in Sanskrit.

**Table 2.** ke- words having je-counterparts

<table>
<thead>
<tr>
<th>ke- words</th>
<th>je- words</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOM</td>
<td>kie ‘who’/‘someone’</td>
</tr>
<tr>
<td>ACC</td>
<td>kāhāku ‘whom’/‘to someone’</td>
</tr>
<tr>
<td>GEN</td>
<td>kāhāra ‘whose’/‘someone’s’</td>
</tr>
<tr>
<td>LOC</td>
<td>keũṭʰāre ‘where’/‘somewhere’</td>
</tr>
<tr>
<td>QUALITY</td>
<td>kemiti ‘how’/‘somehow’</td>
</tr>
<tr>
<td>TIMEPrt</td>
<td>ketebele ‘when’/‘sometimes’</td>
</tr>
<tr>
<td>TIMEGen</td>
<td>kebe ‘when’/‘sometimes’</td>
</tr>
<tr>
<td>PERSON</td>
<td>kehi ‘someone’</td>
</tr>
<tr>
<td>MANNER</td>
<td>kipari ‘how’/ ‘somehow’</td>
</tr>
<tr>
<td>CHOICE</td>
<td>keũ+NP/CLF. ‘which+NP/CLF’</td>
</tr>
</tbody>
</table>

2.3 je-and ke-elements as distinct from pronominals

Odia is a language which freely allows null arguments, and thus pronominal drop (Sahoo, 2010). As shown in example (11b) v.a.v. (11a), the je-elements differ from Odia pronominals in that they cannot be dropped. The same goes for ke-, cf.(11c):

(11)  a.  jie;      jeṭe;  pārilā  se/pro;  seṭe;  nelā
Whoever as much could s/he that much took.
'S/he took as much as one could.'

b. *pro; jeće; pārilā se/pro; sete; nelā
whoever as much could s/he that much took
'S/he took as much as one could.'

c. *jaḍi pro; kitʃi; karutʃi; ŭhele ŭku ŭhāj
if someone something is doing, then him that
karibāku ġia to do let
'If somebody is doing something, let him do that.'

The je-/ke- elements are thus distinct from ordinary pronominals. Along with the relative je-elements, such types of ke- elements are available in most of the Indo-Aryan languages, but have not been much discussed (but cf. Masica, 1991: 253; Krishnamurti, 2003: 448; Butt et al., 2007:6; Subbarao, 2008: 62--63). Dravidian languages take the relative and the interrogative together, that is, no Dravidian language has relative forms different from interrogative ones (Caldwell, 1856: 349; Nadkarni, 1976: 61; Aiyar, 1987: 222; Subbarao, 2008: 62--63; Subbarao, 2012: 276; Sahoo & Auwera, 2019: 29--30; Bhat, 2004: 175--199).

2.4 Many-to-one correspondences

While the example (9) above illustrates that a je-element requires a PRON-correspondent, examples of the types in (12) and (13) suggest that the dependency may not be one of counting je-items and PRONS one-by-one, but over larger constellations:

(12) āge  jeū  rāštā  ġeį;  jeū  gāḍi;  chāluṭilā,
Earlier which road through which bus was walking
ājikāli  sesabu+t;  bāndhōjītʃi
now-a-days all those have stopped

'Which buses used to run on which roads nowadays all that have changed.'

(13) jeū  bibhāgar;  jeū  afisaramāne;  āgaru  jeū  dābitāk;  jeū  prakāre
which department's which workers earlier which demand which way
praṭibāga  karutʃi;e;  semāne+t;  āu  ŭhāk+t;  karibeni
demonstration doing they again that won't do

'Which department's which workers used to hold which sorts of demonstrations because of which sorts of demands, they will no longer do that.'

In (12) the PRON is correlated with a pairing of je-elements. In (13), the PRON is correlated with a situation-expression containing the je-elements. These kinds of constructions were first noted in (Dasgupta 1980) for Bangla; related data in Marathi are treated in (Dalrymple & Joshi 1986). What they have in common is that

1) there are less occurrences of PRONs than of je-'s,
2) None of the PRONs are linked directly to a je-, but rather to a configuration in which je- is a part.

Thus, rather than a one-by-one match, it may be that correspondences can reside in certain types of phrasal complexes with a 'je-factor' as a whole exhibiting a PRON-targeting.

As shown in (14), these same types of readings are obtained with ke-elements.

(14) a. jaḍi  kauṇasi bibhāgar;  kauṇasi karmi;  keū  kāmaṭāk;  kipari  kariba
If some department's some worker which work how will do
boli buṭāpūrānāhin, ṭāhele āme ṭāku, ṭāhā, buṭāiğebā
comp doesn’t understand, then we him that will explain
‘If some worker from some department does not understand how to do it, then we can explain that to him/her.’

b. jaḍi kaṇasi bibāgar, kaṇasi karmi, keū kāmaṭāk
if some department’s some worker which work
kipari kariba boli buṭāpūrānāhin, ṭāhele āme ṭāi upare
how to do comp doesn’t understand, then we him on
birakta hoi lābha nāhin
irritated being gain NEG
‘If some worker from some department does not understand how to do it, then we should not be irritated at him.’

Note that although examples like (14) are possible, unlike correlative constructions, (14) has the conditional morpheme jaḍi’if’. Moreover, without the conditional morpheme, it won’t be possible to have pronoun targeting with ke- words.

2.5 Alternations between universal and specific reading of the je-elements

Multiple CCs necessarily have universal readings, while single CCs have an option between specific and universal. The choice of reading depends on a number of factors, such as i) the aspect of the verb, ii) temporal adverbials, iii) whether or not other NPs are specific/definite or indefinite, iv) the presence of a proper noun. Some of these factors are illustrated below. Clauses having a single REL, the simple version of which is example (15) below, give a specific reading when they have an ASPect marker as in (16a), a definiteness marker/article as in (17a), (cf. Sahoo, 1996) or a temporal adverbial as in (18a). For clauses having multiple RELs, such specific readings are not possible, as shown in the (b) counterparts of each of the examples. In contrast, conditionals with ke- always give universal reading, as shown in the (c) counterparts (cf. Braşoveanu (2008)). See also Jacobson (1995) and Caponigro (2003, 2004). The ambiguity in cases like (15) resembles what one finds in free relative constructions also in languages like English, like in I eat what you cook - for discussions relative to this notion, see Dayal (1995, 1996) who argues that Hindi-Urdu correlatives are internally-headed free relatives.

(15) jie, b’ala pāṭa paḍi, se, skalāʃip pāi,ba
whoever good will study s/he scholarship avail.fut 3 SG
‘Whoever studies well will get scholarship’

(16) a. Single REL, ASP marker and specific reading:
jeū ʃiati, je, p’ula ʃouli se, mora b’auṇi
which girl/who flower pluck.asp prog she my sister
‘The girl who is plucking flower is my sister.’

1 Although - ti is considered to be a classifier (not an article/determiner) in Odia, in cases of syntactic interaction between the classifier - ti and the null-counterpart of the definite article -ka, - ti indicates the definiteness of the NP it occurs with (cf. Sahoo, 1996).

2 Considering Hindi and Romanian, Brasoveanu (2008) also argues that the variability of the uniqueness effects exhibited by correlatives is due to their mixed referential and quantificational nature. His analysis is oriented towards a notion of quantification, independently motivated by ‘donkey anaphora’ and quantificational subordination, and consisting of both (discourse) referential components and non-referential components.
b. ASP marker and universal reading:

\[
\text{jeũ } \text{fāi}(\text{t}) \text{ jeũ } \text{puaku } \text{bisayare } \text{b'ābuṭhīlā},
\]

which girl which boy about think.asp<sub>prog</sub> of

\[
\text{sej } \text{maḍ'ya } \text{tāi } \text{bisayare } \text{b'ābuṭhīlā}
\]

he also her about was think.asp<sub>prog</sub> of

'Whichever girl was thinking of whichever boy, he also was thinking of her.'

c. \[\text{jaḍi tume } \text{kāhākui } \text{b'ala pāut}\text{f'a, } \text{tāhele } \text{tāku, } \text{tāhā } \text{kahuna } \text{kāhinkī}\]

if you somebody-acc are in love with, then him/her that say not why

'If you are in love with somebody why don’t you tell him/her that?'

(17) a. Definiteness marker (ʈ) and specific reading:

\[
\text{jeũ } \text{f\'ia(ʈ)} \text{ ji } \text{janra } \text{afisre } \text{kāmakare } \text{sei } \text{madhura } \text{sṭri } (\text{aṭe})
\]

which girl John's office.in works she Madhu's wife (is)

'Which girl works in John's office, she is Madhu's wife.'

b. Definiteness marker and universal reading:

\[
\text{jeũ } \text{f\'ia(ʈ): jeũ } \text{puaku } \text{kament, karuṭhilā } \text{se: } \text{tāra: } \text{paqoshi}
\]

which girl which boy-acc was commenting she his neighbour

'Which girl was commenting on which boy, she is his neighbour.'

c. (-ʈi does not co-occur with a quantifying ke-element)

(18) a. Temporal adverbial (in boldface) and specific reading:

\[
\text{je: } \text{janku } \text{kāli } \text{rāṭi } \text{bāraṭāre } \text{phone } \text{karuṭ\'ilā, } \text{jan}
\]

who John-acc last night at 12 was ringing up John

ājisakāle \[\text{tāku } \text{gāli } \text{gēlā}\]

this morning him scolded

'John scolded him this morning, who had rung him up at 12 last night'

b. Temporal adverbial and universal reading:

\[
\text{jeũ } \text{f\'ia: jeũ } \text{puaku: } \text{jeṭebele: } \text{gēk\'ilā}
\]

whichever girl whichever boy-acc whenever saw

\[
\text{se: } \text{tāku: } \text{seṭebele: } \text{kament } \text{kalā}
\]

she him then comment did

---

3 Although -ʈi can co-occur in interrogative constructions like the following, it doesn’t co-occur with a quantifying ke-element.

(i) \[\text{keũṇṭi } \text{tumara?}\]

which one yours

'Which one is yours?'

(ii) \[\text{keũ } \text{f\'ia(t) } \text{keũ } \text{puaku } \text{kament, karuṭhilā } \text{kehi } \text{gāhā } \text{jāṇeni}\]

which girl which boy-ACC was commenting, anyone that know.NEG-3-SG

'Which girl was commenting on which boy, nobody knows that.'
Whenever whichever girl saw whichever boy, she commented on him then.'

c. jaği kehi janku räti bāraṭāre p' on kare,
if somebody John-acc night 12.at phone does

jan/se tāku nistfaya gāli ḍebea
John/he him/her certainly will scold

'If somebody rings up John at 12 at night, John/he will surely scold him/her.'

In the formal analyses to be developed below, we call configurations allowing for universal reading of the jeg-elements open, and configurations not allowing it closed, represented by a feature 'OPEN +/−'. A construction like (15) is per se left unspecified for the feature, but with a ‘+’ or ‘-’ value for either reading assigned in any given case. Three main aspects of the CCs as here presented will be pursued in the following:

I) Universal vs specific/definite readings arise with items (the jeg-items) generally distinct from the system of lexically defined quantifiers.

II) These readings depend exclusively on constructional features (jeg-items occurring in adjoined clauses, and the number of jeg-items in a clause) rather than on lexically defined quantifiers.

III) The role of the adjoined clause has strong similarities with Free Relative constructions in English; we will argue that CCs and Adjoined FRs can be treated under a common constructional umbrella, with definable parameters to distinguish between the two.

3. Free Relatives (FRs) in English

Constructions with Free Relative clauses have been extensively studied, cf. Riemsdijk (2006) for an overview covering many languages. Our concern here is how constructions with Adjoined Free Relative clauses (AFRs) compare with CCs.

As is well established (Caponigro & Pearl (2008), Den Dikken (2005), Abeillé, & Borsley, (2008), McCawley, (1998), Beck (1997), Hamblin (1973), Culicover & Jackendoff (1999), Iwasaki & Radford (2009)) a Free Relative (FR) clause in English can occur in any argument position, initiated by a wh-item in a form expanded by -ever or not. If the form is non-expanded, the FR can have either a specific or general reading, while if expanded, the reading of the FR is general, often analyzed as 'universal' (Karttunen, 1977). In this case there may be multiple ever-items in the FR. Table 3 summarizes the options for FRs used in argument positions:

Table 3. Free Relative clauses in Argument position in English

<table>
<thead>
<tr>
<th>Construction with</th>
<th>Example</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single non-expanded wh-item</td>
<td>I eat what you serve.</td>
<td>Specific or general</td>
</tr>
<tr>
<td>Single ever-expanded wh-item</td>
<td>I eat whatever you serve.</td>
<td>General</td>
</tr>
<tr>
<td>Impossible: Multiple non-expanded wh-items</td>
<td>*I eat what you serve when.</td>
<td>General</td>
</tr>
<tr>
<td>Multiple ever-expanded wh-items</td>
<td>I eat whatever you serve whenever.</td>
<td>General</td>
</tr>
</tbody>
</table>

The possible counterparts to CCs are constructions where a Free Relative clause is pre- or post-adjoined to the main clause, to be called Adjoined FRs (AFR); the AFR is then a possible counterpart to the REL-clause of a CC.

Table 4 summarizes patterns where they are pre-adjoined, where the examples have a PRON-element in the main clause (the latter is however not necessary in English, as e.g., in Whatever you serve, I'll be happy):

In the literature, the reading which is here called 'general' is not uncommonly formalized with universal quantification, for instance along the lines of Srivastav (1991), Cremers (2016). The entities involved are not necessarily individuals, for instance in cases like (19), where what is ‘quantified over’ is rather possible types to which that individual may belong (Cf. Dayal, 1997):
Table 4. Free Relative clauses in pre-adjoined position in English

<table>
<thead>
<tr>
<th>Construction with</th>
<th>Example</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single non-expanded wh-item</td>
<td><em>What you serve, I like it.</em></td>
<td>Specific or general</td>
</tr>
<tr>
<td>Single ever-expanded wh-item</td>
<td><em>Whatever you serve, I like it.</em></td>
<td>General</td>
</tr>
<tr>
<td>Impossible: Multiple non-expanded wh-items</td>
<td><em>What you serve when, I like it.</em></td>
<td>General</td>
</tr>
<tr>
<td>Multiple ever-expanded wh-items</td>
<td><em>Whatever you serve when(ever), I like it.</em></td>
<td>General</td>
</tr>
</tbody>
</table>

(19) Whatever crashed into the windscreen, it left a lot of blood and feathers.

Moreover, *eventualities* can constitute the domain as in (20a); a literary famous case of the same is (20b) in Norwegian (quotation from Henrik Ibsen’s *Peer Gynt* (Act 1)):

(20) a. Whether you confess or not, you’ll be staying in the basement.
    b. Om jeg hamrer eller hamres, like fullt så skal det jamres.
    ‘Whether I hammer or get hammered, nevertheless it will be moaned.’

‘Eventuality’ clauses of this kind can also occur post-adjoined, but not in argument positions. One could conceivably represent them as quantification over *eventualities* along the lines of (21), representing (20a) for the domain consisting of the two eventualities ’you confess’ and ’you don’t confess’:

(21) \( \forall e \{ e \in \text{confess (you)} \lor e \in \neg \text{confess (you)} \} \rightarrow \text{stay-in-basement (you)} \)

In the following we will only be concerned with quantificational domains consisting of entities.

4. A common semantics of Correlative Constructions and Adjoined Free Relative Constructions

When read with universal quantification, a salient feature of these constructions is the wide scope of the quantification, comparable to what one could get for ’each’, ’every’, ’any’ or the like when such an item occurs in a syntactic c-commanding position relative to the body of the expression; however, the item sustaining the quantification in a CC or AFR construction is in an adjoined clause, possibly even post-adjoined, and thus far from anything like a syntactic c-command position relative to the whole construction. Rather than trying to construct a machinery of ‘raising’ of quantifiers at the syntax-semantics interface, the account to be suggested bases itself on the circumstance that these constructions are relative constructions, and that the essential feature of a relative construction, what we will call *co-targeting of predicates*, is exactly what provides the scopal effect, given the constellation of clauses.

4.1 Inducing pronoun binding through *co-targeting* of predicates

In an English relative clause construction, the item to which the predicate expressed by the relative clause applies is the item denoted by the NP containing the relative clause. The circumstance that two linguistically expressed properties apply to the same individual may be called *co-targeting* of the predicates expressing the properties, and in a relative clause like in *I saw the boy that you like*, the predicates ‘\( \lambda x [ \text{I see } x] \)’ and ‘\( \lambda x [ \text{you like } x] \)’ are thus ‘co-targeted’ at the same individual ’boy’. In multiple CCs like (2) and (3), viewed as relative clause constructions, there are two or more items marked as such ’joint targets’ of distinct predications. Semi-formally, this can be construed as a situation where each clause in (2) (repeated) is being ‘milked twice’ for providing a predication, as portrayed in the lambda-expressions in (22) and (23).

(22') *jeũ pua. jeũ ʃiaku, ɡe̱hɬ̱a se, tāku, pasaṉa kalā*

whichever boy whichever girl-acc saw he her like did
Double predicational targeting in the first clause in (2'):

a. \( \lambda x [ x \text{ jeū ḫiahu} \text{ ḩet}^\text{l}a ] \) \( (= \lambda x [ x \text{ je-girl see} ] \) applied to \text{jeū pua (je-boy)}

b. \( \lambda y [ \text{ jeū pua} y \text{ ḩet}^\text{l}a ] \) \( (= \lambda y [ \text{ je-boy} y \text{ see} ] \) applied to \text{jeū ḫiahu (je-girl)}

Double predicational targeting in the second clause in (2'):

a. \( \lambda x [ x \text{ ṭaku pasanja kalā} ] \) \( (= \lambda x [ x \text{ her like} ] \) applied to \text{he'}

b. \( \lambda y [ \text{ se } y \text{ pasanja kalā} ] \) \( (= \lambda y [ \text{ he } y \text{ like}] \) applied to \text{ṭaku 'her'}

Relative to the first clause, (22a) represents the property of 'seeing je-girl', which applies to 'je-boy'; (22b) represents the property of 'being seen by je-boy', which applies to 'je-girl'. Relative to the second clause, (23a) represents the property of 'liking PRON-girl', which applies to 'PRON-boy'; (23b) represents the property of 'being liked by PRON-boy', which applies to 'PRON-girl'. Whichever individual serves as instantiating 'boy' relative to (2) is thereby claimed to have two properties, namely those expressed in (22a) and (23a); likewise, whichever individual girl instantiates 'girl' relative to (2') is claimed to have two properties, namely those expressed in (22b) and (23b).

4.2 Compositional build-up with 'co-targeted' predicates

Considering the singular version of a CC, like in "je-girl dance, she smiles", the je-clause expresses the property \( \lambda y [ \text{girl (y) & dance (y)}] \), where 'girl' is an internal head. The composition of such an expression must assume that je- combines first with a common noun property (acting like an internal head of the relative) and then with the remaining clause, thus having the form \( \lambda P.Q \lambda y[P(y) & Q(y)] \) \( (25) \) where \( P \) represents the noun to which je- is prefixed and 'Q' represents the remaining open clause converted to a property \( \lambda x[dance(x)] \) \( (\text{cf. (Montague,1974))}. \) The composition of je-girl can here follow the pattern in (24), which by itself is a standard schema for combining a determiner with a common noun (Heim, 1982), Huddleston & Pullum (2002).\(^4\)

\[
(24) \quad \text{NP} \Rightarrow X(Y) \quad (=\lambda Q. \lambda y[\text{girl(y) & Q(y)}])
\]

\[
(\text{je-girl})
\]

\[
\text{je-} \Rightarrow X
\]

\[
(=\lambda P.Q \lambda y[P(y) & Q(y)])
\]

In the build-up of a representation of the first clause, indicated in the schema (25), where the NP in question acts as a subject,\(^5\) the NP acts as the part \( A \) and the VP as the part \( B \) resulting in the representation \( \lambda y [\text{girl (y) & dance (y)}] \) for the je-clause:

\[
(25) \quad S \Rightarrow A(B) \quad (= \lambda y [\text{girl (y) & dance (y)}])
\]

\[
\text{je-girl} \Rightarrow A \quad \text{dence} \Rightarrow B \quad (=\text{dance})
\]

\[
(=\lambda Q \lambda y[\text{girl(y) & Q(y)}])
\]

Relative to the full CC "je-girl dance she smiles", we thereby have a logical expression for "je-girl dance", and the next step is to account for its combination with "she smile". We refer to the clauses as \( S_{\text{REL}} \) and \( S_{\text{PRON}} \), respectively. We assume a construction-scope operation taking "she smile" as an open sentence, to be prefixed with a lambda binding the free variable, and combining the result, i.e., \( \lambda x[\text{smile(x)}] \), with the expression for the REL-clause, viz. \( \lambda y[\text{girl (y) & dance (y)}] \). Using \( \exists_{\text{DEF}} \) to represent a definite/specific referent, the definite/specific reading of the construction can be represented as (26):

\[
(26)
\]

\(^4\) In the notation, ‘=>’ means ‘translates as’ (into the logical formalism).

\(^5\) If object, differences are reflected in the lexical representation of the transitive verb.
The general, or universal, reading can be represented as (27):

\[ \forall y [(\text{girl}(y) \land \text{dance}(y)) \rightarrow \text{smile}(y)] \]

In assigning either of these readings, we assume the binary structure (28):

\[ \text{CC} \]

\[ \Rightarrow \lambda y [\text{girl}(y) \land \text{dance}(y)] \Rightarrow \lambda x [\text{smile}(x)] \]

The representation (26) is assigned through the rule (29) bringing the daughters in (28) together:

\[ \text{CC} \Rightarrow \exists y [\text{A}(y) \land \text{B}(y)] \]

\[ \Rightarrow \lambda y [\text{girl}(y) \land \text{dance}(y)] \Rightarrow \lambda x [\text{smile}(x)] \]

The representation (27) is assigned through the rule (30), again bringing the daughters in (28) together but now with universal quantification:

\[ \text{CC} \Rightarrow \forall y [\text{A}(y) \land \text{B}(y)] \]

\[ \Rightarrow \lambda y [\text{girl}(y) \land \text{dance}(y)] \Rightarrow \lambda x [\text{smile}(x)] \]

The feature ‘OPEN –’ qualifying the CC node in (29) means that the structure contains a specific pronoun. If there is no such pronoun, the possibility is open for a multiple CC. (31) will apply when there are two je-elements, and (32) when there are three:

\[ \text{CC} \Rightarrow \exists y [\text{A}(y) \land \text{B}(y)] \]

\[ \Rightarrow \lambda y [\text{girl}(y) \land \text{dance}(y)] \Rightarrow \lambda x [\text{smile}(x)] \]

\[ \Rightarrow \lambda y [\text{girl}(y) \land \text{dance}(y)] \Rightarrow \lambda x [\text{smile}(x)] \]

For the structure (2') above, this will yield the representation (33):

\[ \forall x [\forall y [\text{A}(x)(y) \land \text{B}(x)(y)]] \]

\[ \Rightarrow \lambda y [\text{girl}(y) \land \text{dance}(y)] \Rightarrow \lambda x [\text{smile}(x)] \]

To make (31) and (32) work, however, one modification must be made to the logical representation of the je-element defined in (24), viz. ‘\( \forall x \forall y [P(x) \land Q(y)] \)’, where P and Q are \(<e,t>\) variables. While je-always combines with a common noun (which is generally a property of type \(<e,t>\)), the logical type of the expression with which a je+N-element combines is not exclusively of the type \(<e,t>\) as envisaged in (24): In a ‘double’ CC, where the posited open sentence over which abstractions are made contains \(two\) free variables rather than just one, the abstraction made over the first variable is carried on in the expression over which the second abstraction is to be made. Thereby the input to the second abstraction is not an open sentence, i.e., an expression of type \(t\), but a predicate, of type \(<e,t>\), but containing a free variable still, thus an ‘open predicate’. In a ‘triple’ CC, the input to the third abstraction is in turn not an open predicate of type \(<e,t>\), but an open predicate of type \(<e,<e,t>\).
This procedure of ‘altered -arities’ is portrayed in (35) below, where each combinatorial step is covered by the translation schema (34). The ‘monster variable’ \( \mathbf{R} \) in the representations of \( \text{je}-\text{boy} \) and \( \text{je}-\text{girl} \) in (35) is a schematic variable ranging over the types \( \langle e,t \rangle \), \( \langle e,\langle e,t \rangle \rangle \) and \( \langle e,\langle e,\langle e,t \rangle \rangle \rangle \), in (35) instantiated for \( \langle e,t \rangle \) at the lowest node and \( \langle e,\langle e,t \rangle \rangle \) on the highest node, and with the schematic variable \( \mathbf{A} \) in (34) standing for whichever construal of ‘je+\( N \)’ is reached at the point of the combination.

(34) \[
S_{\text{REL}} \Rightarrow \mathbf{A}(\lambda x_0 [B]) \]
\[
\text{je+}N_i \Rightarrow \mathbf{A} \quad S_{\text{REL}} \Rightarrow B
\]

(35) \[
S_{\text{REL}} \Rightarrow \lambda z \lambda y[\text{boy}(z) \& \text{girl}(y) \& \text{see}(z, y)]
\]
\[
\text{je-}\text{boy}_1 \Rightarrow \lambda \mathbf{R} \lambda z[\text{boy}(z) \& \mathbf{R}(z)]
\]
\[
\text{je-}\text{girl}_2 \Rightarrow \lambda \mathbf{R} \lambda y[\text{girl}(y) \& \mathbf{R}(y)]
\]
\[
S_{\text{REL}} \Rightarrow \text{see}(x_1, x_2)
\]

Through these steps, the variable binding in a CC is induced in the two clauses separately but in tandem, and the quantifier doing the joint binding is introduced at the step where the partner clauses in a relative construction join anyway, thus leaving any extra machinery of ‘quantifier raising’ or so uncalled for.

The steps here described correspond closely to the formal analysis of CCs in Srivastav 1991, where a generalized quantifier operator \( \mathbf{G} \) is wrapped around the representation of \( S_{\text{REL}} \) (e.g., \( \lambda x \{x \text{ stand}\} \)), much like the rules stated above, and with accommodation of how many REL-PRON pairs there are by a device mirrored in the ‘monster variable’ \( \mathbf{R} \) in (35). A difference is that her analysis assigns a uniqueness operator inside \( \mathbf{G} \) which induces either a specific reading of the \( \text{je-} \)referent, or, when a plurality obtains in the reference universe, a universal reading; on this aspect of the analyses we have nothing to say.

The same basic strategies as now described can be applied to constructions with Adjoined Free Relative clauses. In the following section we address some of the respects in which CCs and constructions with Adjoined Free Relative clauses differ, and we suggest analyses of some further features of the constructions.

5. Further features of CCs and constructions with Adjoined Free Relative clauses

5.1 Matching \( \text{je-}/\text{wh-} \)items with PRON-items

The main feature distinguishing CCs from constructions with Adjoined FRs is that in the former, in a PRON-clause following a REL-clause, there must be exact match between \( \text{je-} \)items and PRONs, whereas in a matrix clause following an Adjoined FR, the number of pronouns bound to \( \text{wh-} \)items is arbitrary, including none.

To induce complete match between \( \text{je-} \)items in the REL-clause of a CC and pronouns in the following clause, one can design a general rule schema for Odia as in (36), where \( \text{NPcorr} \) stands for either a \( \text{je-} \)NP in the REL-clause or a PRON in the PRON-clause. ‘ABSTR-LIST’ is a feature introducing a list of the abstractions imposed over the clause in the build-ups represented above (‘\Rightarrow’ as before representing translation into the logical formalism), such that a verb by itself has an empty ABSTR-LIST, and (36) recursively adds items to the list Copestake, et al (2005).

---

6 As noted in 2.4, the correlation is not complete. This will be a further issue to explore.

7 The present formalism can be used in inducing the appropriate type represented by the ‘monster variable’ \( \mathbf{R} \) in the rules schematized in (35) above.
At CC level, combination is possible only if the ABSTR_LISTs are identical across the two daughter clauses, as suggested by the marking in (37), where ‘#1’ is an identity marker:

(37)  
\[
\begin{array}{c}
\text{S}_{\text{REL}} \\
\text{NP corr} \quad \\
[\text{INDEX x}] \\
\end{array}
\quad \Rightarrow \quad \text{A}
\]

To allow for the arbitrary matching in AFR constructions, a rule schema is added for the combination at top level where there is no matching requirement as in (37).

5.2 Epithets as bound items

In English AFR constructions, the pronoun in the main clause can alternate with an epithet, as in (38a,b), the latter involving multiple PRON-items. In Odia CCs, the same is possible when there is one je-element, as in (39), but not with multiple je-elements.

(38)  
\begin{align*}
\text{a. } & \text{whoever wrote this contract, the slime bag made sure to get all the gains for himself.} \\
\text{b. } & \text{Whoever misplaces whichever book in the library, the person will have to pay for the by then lost item.}
\end{align*}

(39)  
\begin{align*}
\text{t̪o t̪e jie kāli 500 ūt̪ankā ġeṭ̪i\text{"ile, }sei [d̪āni lokaṭi] / [d̪āna veera]} \\
\text{You-DAT who yesterday five hundred rupees give-past-perf, that donor person / [that noble donor]}
\end{align*}

“\text{The person who had given you 500 rupees yesterday, today that noble donor is distributing food and clothes to the poor people.”}

Without trying to reflect the large literature on epithets, or even their construal as ‘E-pronouns’, we briefly suggest how the cases exemplified can be accommodated within the present analysis. With the slightly simpler example (40), the idiot here is an epithet read as bound by whoever, but at the same time the predicate ‘idiot’ is to be understood literally.

(40)  
\text{Whoever buys this apartment, the idiot will repent.}

A standard representation of the idiot will be (41a) (in our style of representing definites), and the assumed schema of combination at top AFR construction or CC level is still (41b):

(41)  
\begin{align*}
\text{a. } & \lambda x [\exists_{\text{DEF}}[\text{idiot(y)} \& Q(y)]] \\
\text{b. } & \lambda z [P(z)] \quad \Rightarrow \quad \lambda x [Q(x)]
\end{align*}
In its occurrence as PRON in \( S_{PRON} \), the variable reflecting 'the idiot' must be bound internally, while at the same time, this variable should be accessible to binding by the 'x' in (41b). An accommodation of both concerns may be (42a) as a representation of 'the idiot' as an epithet, whereby the \( S_{PRON} \) after combination of 'the idiot' with will repent will have the representation in (42b):

(42)

a. Representation of 'the idiot' as it occurs in (40):
\[ \lambda Q \lambda z \left[ \exists y \left[ \text{idiot}(y) \land Q(y) \land y = z \right] \right] \]

b. Representation of 'the idiot will repent' as it occurs in (40):
\[ \lambda x \left[ \exists y \left[ \text{idiot}(y) \land \text{repent}(y) \land y = x \right] \right] \]

This requires that lexically, the item 'the' has (43a) as a representation for the case where it combines as part of an epithet, and (43b) for its standard representation; for the purpose of defining an interface to syntactic combination, the cases may be represented by a feature 'EPITHET +/-' carried by the determiner and by the noun:

(43)

a. the, DET [EPITHET +] \( \Rightarrow \) \( \lambda P \lambda Q \lambda z \left[ \exists y \left[ P(y) \land Q(y) \land y = z \right] \right] \]

b. the, DET [EPITHET -] \( \Rightarrow \) \( \lambda P \lambda Q \left[ \exists y \left[ P(y) \land Q(y) \right] \right] \]

The account brings out the capability of an epithet to have its lexical meaning at the same time as it can occur as a bound item in a CC or an AFR construction.

Keeping in mind that in Odia there can be only one epithet (cf. (39)), one can define for verbal projections a feature 'HAS-COMBINED-WITH-NP-EPITHET +/-' to be used in the combinatory schema (44), relevant for the main clause in a CC, covering both objects and subject:

(44) \[ V \left[ \text{HAS-COMBINED-WITH-NP-EPITHET +} \right] \]
\[ / \]
\[ \text{NP} \left[ \text{EPITHET +} \right] \quad V \left[ \text{HAS-COMBINED-WITH-NP-EPITHET -} \right] \]

No such constraint need be assumed for AFR constructions in English.

5.3 Obligatoriness of 'upward projection' of -ever-items

The obligatoriness of what we may call 'upward projection' of -ever-items is illustrated in the pair below (similarly for CCs):

(45)

a. *Our cat gets whichever meat products, it will be happy.

b. Whichever meat products our cat gets, it will be happy.

If there is an -ever-item in a clause, then the subject must be an -ever-item. In a formal account of this dependency, the `-ever` operator can thus be formally induced only if the top node feature of \( S_{REL} \) is 'OPEN +'. We coin the binary feature shown below, applicable to verb projections, and where NP\(_{ever}\) is a je- or wh-item with -ever:

(46) \[ \text{HAS-COMBINED-WITH-NP}_{\text{ever}} +/- \]

We let the 'plus'-value of this feature be assigned to any node in a verbal projection combining with an \( \text{NP}_{\text{ever}} \) induced by the rule schema (47). A verb is lexically specified for the negative value of (46). At the clausal level where the verbal projection combines with a subject NP, if the projection carries the feature in question with positive value, i.e., as in (47), then only an \( \text{NP}_{\text{ever}} \) should be able serve as the subject; this is induced by the rule schema (48).

(47) \[ V^{n+1} \ldots \]
\[ \left[ \text{HAS-COMBINED-WITH-NP}_{\text{ever}} + \right] \]
\[ \text{NP}_{\text{ever}} \quad V^n \]
\[ \left[ \text{HAS-COMBINED-WITH-NP}_{\text{ever}} - \right] \]
Rules such as these and those above in this section require a syntactic formalism where status as subject is formally marked, and where rules are declarative, thus with no negative conditions being imposed, as in the formalism of Head-Driven Phrase Structure Grammar (HPSG) – cf. Pollard and Sag (1994), Borsley, (2004). However, the content of these rules could perhaps be readily recast in other formalisms.

5.4 Can the left clause in a CC or AFR be categorized as ‘definite’ or ‘indefinite’?

An issue in much of the discussion of Free Relatives (FRs) is whether they are definite or indefinite. For instance, Caponigro (2008) suggests that FRs are definite constructions, generalizing the case where a specific referent is invoked to a construal of the plurality involved in the ‘universal’ use as a ‘multiple entity’ consisting of the full set of items quantified over. This being in the discourse a largely given set of entities, the next step is to call the FR in general, also the ‘universal’ FR, a definite NP. ‘Definite’/’Indefinite’ are notions primarily applied to noun phrases (Heim, (1982), (1988)). They are partly grammatical notions, morpho-syntactically pertaining to the forms of the noun and determiners, and partly discourse oriented notions, along the following familiar lines:

“Both speaker and hearer know about the referent of the NP, the speaker knows that the hearer knows about the referent of the NP, and the hearer knows that the speaker knows that the hearer knows about the referent of the NP.”

In English, NPs satisfying such conditions have a definite article determiner preceding the noun.

For FRs like those in (49) below, these criteria of definiteness fail on both counts: The set of relevant delegates is not identified by speaker and hearer in the respects mentioned, and the noun form delegates has what is called an indefinite plural inflection, with no markers of definiteness.

(49) a. No matter which delegates are coming, try to get to know them.
    b. Whichever delegates are coming, try to find out about their addresses.

It seems fair to conclude that FRs should be counted as indefinite. To the extent that AFRs and CCs could be categorized in terms of definiteness, it is then clear that they would come out as indefinites.

6. Some Further Issues

6.1 How do embedded interrogatives relate to FRs/CCs?

The closest counterparts to Odia je-elements in English are presumably wh-elements. Just as Odia je-elements are distinct from Odia ke-elements, the latter categorized as quantifiers, wh-elements are distinct from quantifiers in English. In English, also embedded interrogatives (EIs) are introduced by wh-items, while as noted in 2.2, in Odia, EIs are marked with ke-morphology just like quantifiers. It may be inviting to explore cross-linguistic correlations between overall grammatical construction profiles in this domain, and morphologies used on the salient operators. For instance, how could the semantics of EIs, e.g., as represented in the approach of Heim (1994), Lahiri (2002), Spector & Egré (2015), be aligned with FRs/CCs?

6.2 Is truth-functional semantics relevant to (A)FRs/CCs?

An issue not mentioned so far are possible stylistic or rhetorical peculiarities of AFR constructions and CCs, notable especially when read universally; for instance, they do not play much of a role in formal reasoning discourse,
or in construction manuals, for that sake. Could it be that these construction types should not be in the scope of standard logical formalism at all, contrary to what our analysis presupposes?

It is not the case that FR constructions generally lack truth-value – if on an occasion the sentence *Mary eats whatever John serves* is asserted, and John serves Mary fish, and Mary doesn’t eat it, then the statement must count as false. Moreover, even though the rhetoric of an utterance like *Whatever happens, we will not abandon the cause!* is more like a promise than a statement (such that if the cause in question is abandoned, this will not count as a falsity but more as a broken promise), standard logical formalisms have well defined uses also for representing expressions used in illocutionary contexts other than declaratives, as well as expressions occurring in intensional contexts. Thus, although the constructions here treated can have somewhat marked stylistic or rhetorical values, that doesn’t prevent them from being within the scope of formal analysis.

7. Conclusion

The paper has investigated correlative constructions in Odia. While correlatives have been studied in other languages, this paper has analyzed features that are specific to Odia, and compared the constructions to adjoined free relatives in English. We have observed two distinct strategies for obtaining quantificational effects - lexical quantifiers and correlative constructions, showing how the quantificational effects of CCs can be derived from the character of these constructions as relative constructions, residing in co-targeting of predicates, as opposed to lexical encoding of quantificational meaning corresponding to items like ‘each’, ‘every’ and the like. While earlier studies have also identified parallels between CCs and constructions with Free Relatives (FR), further parallels between CCs and English FR constructions have here been explored, noticing the possibility of using epithets and to quantify over eventualities, and suggested accounts of the necessity in the case of CCs vs. the optionality in the case of AFR constructions of having matches between *je*/*wh*-items in the ‘REL-clause’ and bound pronouns in the matrix clause. The analysis of these facts, together with aspects of the use of epithets, constraints on the use of ‘*-ever*-items, has been couched in a semantico-syntactic framework combining features of standard formal semantics and feature-based approaches to syntax.

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