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Correlative and Free Relative constructions in Odia and English

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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 *țāhā* 'that' in the following clause (indicated by co-indexing):

(1)	tume	jāhā i	rānd ^h a	mũ	țāhā i	<i>k^hāe</i>
	You	what (ever)	cook	i	that	eat
	PRON	PRON	V	Pron	PRON	V





'I eat what (ever) you cook'

Vol 5 Iss 2 Year 2024

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

(2)	jeũ		puai	jeũ		jⁿiaku j		dॣek ^h ilā	Sei	țāku j	pasang	la kalā
	whiche	ver	boy	whichev	ver	girl-aCC	saw	he	her	like	did	
	PRON 'Whiche	ever boy	N saw wh	PRON ichever g	girl, he li	N ked her.		V	PRON	PRON	V	V
(3)	jeũ		pua;		jeũ	j[†]iaku j	jet	eparim	ānare k	b ^h alapāe	2	
	whiche	ver	boy	whichev	ver	girl-acc		how mu	uch	ike-prs-3	l-sg	
	PRON se j	maghya	N a <u>tākui</u>	PRON <i>setepa</i>	nrimāna	N D re k	b ^h alapā	ADV Te		V		
	she	too		him	that mu	ıch		like prs-	-3-sg			
	PRON	ADV		PRON	ADV			V				

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

In (2), the subject *jeũ pua* 'whichever boy' in the first clause is co-indexed with the subject pronoun *se* 'he' in the second clause, and the object *jeũ f^hiaku 'whichever girl'* of the first clause is co-indexed with the object pronoun $\underline{t}\bar{a}ku$ '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.

Kalyanamalini Sahoo & Lars Hellan / 2024

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) a. sie [jie āsit^hile] mora bāpā (aţanti)
 s/he [who come-past perf] my-father (is)

'He who had come is my father.'

b. *mo pua k^hāe, mũ tāku jāhā die*

My son eats, I him whatever give

'My son eats whatever I serve him.'

['My son eats (that) whatever I serve him.']

c. *vo laRkii jo khaRii hai lambi hai* (Hindi, cf. Srivastav, 1991 (5c)) DEM girl REL standing is tall is

'The girl who is standing is tall.'

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 PRONclause, whereas if there are many REL-elements, the REL-clause can only precede the PRON-clause. This is illustrated in (5):

(5)	a.	jeũ	j ⁿ iați	gita g	gāut∫ ^h i s	5e	mora	b ⁿ auni		
		which	girl	song is	s singing s	she	my	sister		
		'The g	irl who i	s singing	g a song is	my	sister'			
	b.	sei;	jⁿiați i	mora	b ^h auni,	jie;	giţa	gāut∫ ^ħ i		
		that	girl	my	sister, v	vho	song	is singir	ng	
		'The gi	rl who is	singing	a song is	my s	ister.'			
	C.	(cf. (2))							
	* <i>sei</i>	puați _i	sei	j^hiaku j	_i pasan <u>d</u> a	kalā,	, jie i	jāhāku	ji	dॣek ^h ilā
		that	boy	that	girl-acc li	ike	did	who	whom	see-Pst
		'Which	ever bo	y saw wł	hichever g	irl, h	e 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.



(6)	jaģi	kehi j		keţeb	e[eĸ	kāhāk	(U)	kit f ^h in	7	māge			
	if	someb	ody	someti	me	to som	eone	someth	ning	asks fo	or		
	(țebe)	Se	sețeb	e [e k	țāku j	țāhā m	<u>d</u> eideb	āut∫iţ					
	then	s/he	then		him/he	er that	give	should					
	'If som	nebody a	asks for	somethii	ng to sor	nebody	sometim	ne, (then) s/he sl	hould gi	ve him/h	ner that then.	'
in a se	A simila cond clau	arity to t use, app	he cases parently i	in 2.2 r	esides in urally sir	the circ	umstanc ys.	e that ite	ems in a	first cla	use corre	espond to pro	onoun
as a co	There a onditional	are howe I `if'-clau	ever diffe ise. As s	erences, hown in	one beiı (7), <i>je</i> -e	ng that t elements	he first of are exc	clause in luded fro	a <i>ke</i> -co om a <i>jag</i>	nstructio //``if'- coi	on is exp nstructio	licitly subord n:	inated
(7)	a.	* <i>ja<u>d</u>i</i>	jeũ	pua;	jeũ	jhiaku	ıj je<u>t</u>e	parim	ā nare k	b ^h alap	āe		
		If	which	boy	which	girl-aco	c how	much		like-pr	s-3-sg		
		Sej	maḍʰya	a țāku i	sețe	parim	ānarek	b ^h alapa	āe				
		she	too		him	that	much	like-pr	s-3-sg				
	'If whic	hever b	oy likes	whichev	er girl ho	owever r	nuch, sh	e likes h	im that	much to	o.'		
	b.	* <i>jeũ</i>		j ⁿ iama	āne;	jeũ		puam	ānanku	j	<u>d</u> ek ^h ile	e, samaste _k	misl
		whiche	ver	girls		whiche	ever	boys- a	СС	saw	all	together	
		piknik		jibāpāl	in	b ^h ābut	f^hanți/b	<i>ābile</i>					
		picnic	for goi	ng	are thi	nking/ tł	nought						
	'Whiche	ever girl	s saw w	hichever	boys, th	ney are p	olanning,	/planned	to go fo	or a picr	nic togeth	ner.'	
	The exa	amples i	in (8) m	preover	show tha	at <i>ke</i> -wo	rds need	d not be	correlate	ed with	a PRON	at all.	
(8)	a.	kehi(l	bi)		moțe	kit∫†i		<u>d</u> eini					
		Nobody	y(even)	me	anythir	ng	has no	t given					
		`Nobod	ly has gi	ven me	anything	.'							
	b.	kehi		je	moțe	kit∫†i		deba	mũ	ţāhā	ādoũ	b ^h ābibina ț h	ili
		someb	ody	that	me	someth	ning	give.fu	t I	that	at-all	thought-no	t
		'I had i	never ex	pected t	hat som	ebody w	ould giv	e me so	mething	ı			
	C.	ja <u>d</u> i k a	ehi _i i	kit∫ ⁿ ij	karut∫.	hi, <u>t</u> āhe	le tāku	i țāhā j	karibāl	ku <u>d</u> ia			
		:6	nohody a	omethir	ng. is doi	ng	then	him	that	to do	let		
		IF SON	lebbuy s		5	-							
	'If so	mebody	is doing	someth	ning, let	him do t	hat.'						

9) * jeu	j"ıama	ne _i jeu	puama	nankuj ģek'ile,	samas	ite k (nishi
Whichever	girls	whichev	ver	boys-acc	saw	all-togeth	ner
piknik	jibāpāin	b ^h ābut)	(^h anți/b ^h ă	ābile			
picnic	for going	are thinking/ th	ought				

'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).



Vol 5	ol 5 Iss 2 Year 2024				Calyana	malini Sa	DOI: 10.54392/ijll2423			
(10)	a.	ei	barsa	kie	gyāna	apit ^h a	purasi	kāra	pāilā	
		this	year	who	Gyanı	oith	award		get-pst-	3-sg
		'Who	won the	Gyanpit	h award	l this year	?'			
	b.	kie	keţeb	ele kāl	hāku	kana	delā,	mũ	kit f†i	jāņini
		who	when	wh	om	what	gave	Ι	anything	g know-neg
		'I don	't know v	/ho has	given w	hom wha	at and w	hen.'		

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

kehi 'somebody', *kit f^hi* 'something', *kiejane* 'somebody', *kemiţibi* 'somehow'.

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

<i>ke</i> -words	Question word	Quantifier
keũť <u>hāre.oc</u>	Where	Somewhere
kețebele	When	Sometimes
Kebe	When	Sometimes
kāhā <u>kuacc</u>	Whom	Somebody

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
--------------	----	-----	-------	--------	-----------------

	<i>ke</i> - words	<i>je</i> - words
NOM	<i>kie</i> 'who'/'someone'	<i>jie</i> `who-Rel'
ACC	kāhāku `whom'/`to someone'	<i>jāhāku</i> `whom-Rel '
GEN	kāhāra `whose'/`someone's'	<i>jāhāra</i> `whose-Rel '
LOC	keũthāre `where'/`somewhere'	<i>jeũť^hāre</i> 'where-Rel'
QUALITY	<i>kemi<u>t</u>i`</i> how'/`somehow'	<i>jemi<u>t</u>i</i> `how-Rel'
TIME _{Prt}	<i>ketebele</i> `when'/`sometimes'	<i>jetebele</i> 'when-Rel'
TIME _{Gen}	kebe `when'/`sometimes'	<i>jebe</i> 'when-Rel'
PERSON	<i>kehi</i> `someone'	¢/ <i>jaղe</i> `one'
MANNER	kipari `how'/ `somehow'	<i>jepari</i> 'how-Rel '
CHOICE	<i>keũ</i> +NP/CLF. 'which+NP/CLF'	<i>jeũ</i> +NP/CLF `which-Rel+NP/CLF.'

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**; **jețe**; pārilā **se**;/**pro**; **sețe**; nelā



Vol 5 Iss 2 Year 20	24 к	alyanam	alini Sahoo & La	DOI: 1	0.54392/ijll2423		
Whoever	as much	could	s/he that muc	h took			
'S/he took as	much as one c	ould.'					
b. * <i>pro</i> i	jețe _j	pārilā	sei/proi sețe j	nelā			
whoever	as much	could	s/he	that much	took		
'S/he took a	s much as one o	could.'					
с. * <i>ја<u>д</u>і</i>	<i>pro</i> i	kit ſ ^ħ ij	karut/	^h i, <u>t</u> āhele	<u>t</u> āku;	<u>t</u> āhā _j	
if <i>karibāku</i>	someone <i>dia</i> to do	let	something	is doing,	then	him	that

'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 jeũ	rāstā dei	jeũ gādij	chāluť hilā,
	Earlier which	road through	which bus	was walking
	ājikāli	<i>sesabu</i> i+j	bandhoijāit∫ ^h i	
	now-a-days	all those	have stopped	

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

(13)	jeũ bibʰāgarṟ		jeũ al	jeũ afisaramāne j			jeũ dābit,āĸ		jeũ praka	īre
	which departme	ent's	which	workers	earlier	which c	demand	which	way	
	prațibāda	karuț ^h il	le,	semār	1e <u>i+j</u>	āu	țāhā k+	<u>/</u>	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 situationexpression 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.	jadi	kaunasi bib ^h a	āgar:	kaunasi karm	i j	keũ l	kāmaţ,ā	ik kipari /	kariba
	If	some o	Jepartment's	some w	orker	which v	work	how	will do	



Kalyanamalini Sahoo & Lars Hellan / 2024

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boli buj^hipārunāhin, tāhele āme **tāku**i+j **tāhā**k+ibuj^hāidebā

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.	jadi	kaunas	si	bib ^h āg	ari	kaunas	si	karmi j	keũ	kāmaţ,āĸ	
if	some	departn	nent's	some		worker	which v	vork			
kipari;	kariba	boli	buj ⁿ ipāl	runāhin,	tāhele	āme	tā i+j	upare			
how	to do c	comp	doesn't	underst	and,	then	we	him	on		
birakta	hoi	lābha n	āhin								
irritated	lbeing	gain NE	G								

'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 *jadi*`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)¹ 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)).² 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 ^h ala	pāţ ^h a	pad ^h iba,	SCi	skalār∫ip	pāiba				
	whoev	/er	good	will study	s/he	scholarship	avail.fut 3 SG				
	'Whoe	'Whoever studies well will get scholarship'									
(16)	a. Sing	gle REL,	ASP mar	ker and specifi	c reading:						

jeũ jʰiať,iː/je ː pʰula _tol u tʃi	Sei	mora	b ^h auni
which girl/who flower pluck. asp prog	she	my	sister

'The girl who is plucking flower is my sister.'

² Considering Hindi and Romanian, Braşoveanu (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.



¹Although - 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).

b. ASP marker and universal reading: jeũ b^hāb**u**thilā, jeũ iⁿiai puai bisavare which girl which boy about think.aspprog of mag^hya **tā**i bisayare b^hābu<u>t</u>^hilā sej her he also about was think.aspprog of 'Whichever girl was thinking of whichever boy, he also was thinking of her.' c. jadi tume **kāhāku**i b^hala pāut (^ha, tāhele **tāku**i <u>t</u>āhā kahuna kāhinki if somebody-acc are in love with, then him/her that you say not why 'If you are in love with somebody why don't you tell him/her that?' (17) a. Definiteness marker (*tt*) and specific reading: jeũ jʰiat,i janra afisre kāmakare madhura (ate) sei stri which girl John's office.in works Madhu's (is) she wife 'Which girl works in John's office, she is Madhu's wife.' b. Definiteness marker and universal reading: jeũ j^hia(ți) jeũ puaku kament, karuthilā padoshi sei <u>t</u>āra_i which boy- acc was commenting she which girl his neighbour 'Which girl was commenting on which boy, she is his neighbour.' c. (-*fi* does not co-occur with a quantifying ke-element)³ (18)a. Temporal adverbial (in boldface) and specific reading: iei janku kāli rāti bārat,āre phone karuthilā, jan who John-acc last night at 12 was ringing up John ājisakāļe <u>t</u>**āku**i gāli delā this morning him scolded 'John scolded him this morning, who had rung him up at 12 last night' b. Temporal adverbial and universal reading: j[†]ia; jeũ jeũ puaku; jetebelek dekhilā whichever girl whichever boy-acc whenever saw setebelek sei **tāku**i kament kalā him did she then comment

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

(i) *keunţi tumara*?

which one yours

'Which one is yours?'

(ii) keũ j^hia(ți) keũ puaku kamenţ, karuţhilā kehi tāhā jāŋeni
 which girl which boy-ACC was commenting, anyone that know.NEG-3-SG

'Which girl was commenting on which boy, nobody knows that.'



Kalyanamalini Sahoo & Lars Hellan / 2024

'Whenever whichever girl saw whichever boy, she commented on him then.'

с. <i>ја<u>д</u>і</i>	kehi;	janku	rāţi	bāraţ,āre	p ^h on	kare,
if	somebody	John-acc	night	12.at	phone	does
jan/se	<u>t</u> āku;	nist∫aya	gāli del	ba		
John/he	e him/her	certainly	will sco	ld		

'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 *je*-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 *je*-items) generally distinct from the system of lexically defined quantifiers.
- II) These readings depend exclusively on constructional features (*je*-items occurring in adjoined clauses, and the number of *je*-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:

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

Table 3.	Free Relative	clauses	in Araument	position in	Enalish

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

Construction with	Example	Reading
Single non-expanded wh-item	What you serve , I like it.	Specific or general
Single ever-expanded wh-item	Whatever you serve, I like it.	General
Impossible: Multiple non-expanded wh- items	*W hat you serve when , I like it.	
Multiple ever-expanded wh-items	Whatever you serve when(ever), I like it.	General

(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) $\forall e \{ e \in | e = confess (you) \lor e = -(confess (you)) \} [obtain (e) \rightarrow stay-in-basement (you)]$

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 ' λx [I see x]' and ' λx [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).

(2′)	jeũ	puai	jeũ	jⁿiaku j	dॣek ^h ilā	Sei	<u></u>tāku j	pasanda	a kalā
	whiche	ver boy	whichev	/er girl-acc	saw	he	her	like	did



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

(22) Double predicational targeting in the first clause in (2'):

	a.	$\lambda x [x je\tilde{u} j^{h} iaku dek^{h} il\bar{a}] (= \lambda x [x je-girl see])$	applied to <i>jeũ pua</i> (<i>je-boy</i>)		
(23)	b.	$\lambda y [je \tilde{u} pua y dek^h i l \bar{a}] (= \lambda y [je-boy y see])$	applied to jeũ j^hiaku (je-girl)		
	Doubl	le predicational targeting in the second clause in (2'):			
	a.	λx [x tāku pasandā kalā] (= λx [x her like])	applied to <i>se 'he'</i>		
	b.	$\lambda y [se y pasanda kalā] (= \lambda y [he y like])$	applied to țāku '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 ' λy [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 ' $\lambda P \lambda Q \lambda y [P(y) \& Q(y)]$ ' where 'P' represents the noun to which *je*-is prefixed and 'Q' represents the remaining open clause converted to a property ' λx [dance(x)]' (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) NP => $\mathbf{X}(\mathbf{Y})$ (=' $\lambda Q \lambda y[girl(y) \& Q(y)]'$) ('*je*- girl) $\bigvee N => \mathbf{Y}$ (= 'girl')

 $(='\lambda P\lambda Q \lambda y[P(y) \& Q(y)]')$

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 ' λy [girl (y) & dance (y)]' for the *je*-clause:

ie-qirl => **A** dance => **B** (='dance')

 $(= \lambda Q \lambda y[girl(y) \& Q(y)]')$

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**_{REL} and **S**_{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., ' λx [smile(x)]', with the expression for the REL-clause, viz. ' λy [girl (y) & dance (y)]'. Using ' \exists_{DEF} ' to represent a definite/specific referent, the definite/specific reading of the construction can be represented as (26):

⁵ If object, differences are reflected in the lexical representation of the transitive verb.



⁴ In the notation, '=>' means 'translates as' (into the logical formalism).

Vol 5 Iss 2 Year 2024

(26) $\exists DEF y [girl (y) \& dance (y) \& smile (y)]$

The general, or universal, reading can be represented as (27):

(27) $\forall y [(girl (y) \& dance (y)) -> smile (y)]$

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

(28)

SREL SPRON

 $\Rightarrow \lambda y [girl(y) \& dance(y)] => \lambda x [smile(x)]$

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

(29) CC =>
$$\exists_{\text{DEF}} z [\mathbf{A} (z) \& \mathbf{B} (z)]$$

[OPEN -] Srel Spron => A => B

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

(30) CC =>
$$\forall x [\mathbf{A}(x) \rightarrow \mathbf{B}(x)]$$

[OPEN +]
 $S_{REL} S_{PRON}$
= \mathbf{A} = \mathbf{B}

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:

(31) CC => $\forall x [\forall y [A(x)(y) -> B(x)(y)]]$

$$[OPEN +]$$

$$S_{REL} S_{PRON}$$

$$= \mathbf{A} = \mathbf{B}$$

$$CC \Rightarrow \forall x [\forall y [\forall z [\mathbf{A}(x)(y)(z) \rightarrow \mathbf{B}(x)(y)(z)]]$$

$$[OPEN +]$$

$$S_{REL} S_{PRON}$$

= A = B

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

(33) $\forall x [\forall y [[(boy (x) \& girl (y) \& see (x,y)) -> like (x,y)]]$

To make (31) and (32) work, however, one modification must be made to the logical representation of the *je*- element defined in (24), viz. ' λ P λ Q λ y[P(y) & 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,t>>.



(32)

Vol 5 Iss 2 Year 2024

Kalyanamalini Sahoo & Lars Hellan / 2024

DOI: 10.54392/ijll2423

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 *je*-boy and *je*-girl in (35) is a schematic variable ranging over the types <e,t>, <e,<e,t>> and <e,<e,<e,t>>>, in (35) instantiated for '<e,t>' at the lowest node and '<e,<e,t>>' 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)
$$S_{\text{REL}} = \mathbf{A}(\lambda x_n[\mathbf{B}])$$

$$je+N_n = A$$
 $S_{REL} = B$

(containing the free variable en)

(35)
$$S_{REL} =====> \lambda z \lambda y[boy(z) \& girl(y) \& see (z, y)]$$

$$je-boy_1 =>\lambda R \lambda z[boy(z) \& R(z)]$$

$$S_{REL} ====> \lambda y[girl(y) \& see (x_1, y)]$$

$$je-girl_2 =>\lambda R \lambda y[girl(y) \& R(y)]$$

$$S_{REL} ===> see (x_1, x_2)$$

$$e_1 see e_2$$

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 G is wrapped around the representation of S_{REL} (e.g., ' λx [x 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' **R** in (35). A difference is that her analysis assigns a uniqueness operator inside G which induces either a specific reading of the *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 je-/wh-items with PRON-items

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

To induce complete match between *je*-items in the REL-clause of a CC and pronouns in the following clause,⁶ one can design a general rule schema for Odia as in (36), where **NPcorr** stands for either a *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 ('=>' 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).⁷

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.



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

(37)

```
[ABSTR-LIST < ..., [INDEX x]>]
/ \
NP corr \
[INDEX x] => A
```

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 11 is an identity marker:

CC [OPEN +] SREL SPRON

ABSTR-LIST #1 ABSTR-LIST #1

To allow for the 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) a. whoever wrote this contract, *the slime bag* made sure to get all the gains for himself.

b. Whoever misplaces whichever book in the library, *the person* will have to pay for *the by then lost item*.

(39) tote jie kāli 500 tankā deit^hile, sei [dāni lokati] / [dāna veera]

You-DAT who yesterday five hundred rupees give-past-perf, that donor person / [that noble donor]

āji garibamānanku anna-bastra deut ſʰant̪i

today poor.PL.-DAT food-clothes giving

"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) 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) a. $\lambda Q[\exists_{DEFy}[idiot(y) \& Q(y)]]$

b.

CC

Srel Spron

=> $\lambda z [P(z)]$ => $\lambda x [Q(x)]$



Vol 5 Iss 2 Year 2024

Kalyanamalini Sahoo & Lars Hellan / 2024

DOI: 10.54392/ijll2423

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):

 $\lambda Q \lambda z [\exists_{DEF} y[idiot(y) \& Q(y) \& y=z]$

b. Representation of `*the idiot will repent*' as it occurs in (40):

 $\lambda x [\exists_{DEF} y[idiot(y) \& repent(y) \& y=x]$

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 +] => $\lambda P \lambda Q \lambda z [\exists_{DEF} y[P(y) \& Q(y) \& y=z]$

b. the, DET [EPITHET -] => $\lambda P \lambda Q[\exists_{DEF} y[P(y) \& Q(y)]$

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 [HAS-COMBINED-WITH-NP-EPITHET +]

١

/

NP [EPITHET +] V [HAS-COMBINED-WITH-NP-EPITHET -]

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) HAS-COMBINED-WITH-NP_{ever} +/-

We let the 'plus'-value of this feature be assigned to any node in a verbal projection combining with an NP_{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 NP_{ever} should be able serve as the subject; this is induced by the rule schema (48).

(47) Vⁿ⁺¹ ...

[HAS-COMBINED-WITH-NP_{ever} +]

NP_{ever}

Vn

[HAS-COMBINED-WITH-NPever -]



Vol 5	Iss 2 Year 20	Kalyanamalini Sahoo & Lars Hellan / 2024
(48)	V ^{max} (=S)	
	[OPEN+]	
_		
NP _{ever}		V ^{max-1}
[SUBJE	CT]	[HAS-COMBINED-WITH-NP _{ever} +]

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 *in*definite 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 *in*definites.

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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Conflict of interest

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