Syntactic effects of correlative clause features in Sanskrit and Hindi/Urdu Alice Davison, University of Iowa, alice-davison@uiowa.edu

Both earliest Sanskrit and the modern Indic language Hindi-Urdu have correlative clauses (1), in which the modifying, dependent relative clause is not required to be adjoined within the correlate XP, but instead to the whole clause containing XP. The two related but temporally separated languages differ in the adjunction relation of relatives: Sanskrit has symmetric adjunction of CP to CP (2), but Hindi has asymmetric adjunction of CP to TP with the corresponding correlate XP (3). Asymmetric c-command rules out stacked relatives, non-local coindexing and locality condition violations in HU, but symmetric adjunction in Sanskrit permits stacked relatives, non-local coindexing and a much looser anaphoric relation between the two finite clauses, as well as interpretations not permitted in HU. I propose that the asymmetric adjunction and local relation of relative and correlate are enforced in the syntax by features on Hindi relative clauses which are absent in syntactic derivation in Sanskrit, but are options after Spellout in determing interpretation.

This syntactic difference is derived from by the features on the relative CP and the correlate XP, checked by Agree (Chomsky 2002, 2004. Grosu (2002) proposes the features in (4) for correlative clauses. The feature [Rel] reflects relative clause form in both restrictuve and non-restrictive clauses, and is anaphoric; it is linked by Agree to a like category, even non-locally. The feature [Pred] marks relative clause with a modifier function translated as set intersection with the predicate contents of X, and interpreted as a λ expression (Adger and Ramchand 2005). [MAX] defines a single unique individual, reflecting the definiteness associated with correlatives (Dayal 1995).

In Sanskrit, [Rel] is the only syntactically active feature in Sanskrit. In Hindi, relative clauses have all 3 features in the syntax. In Sanskrit, [Pred] and [MAX] are options checked in LF, deriving restrictive and definite interpretations found in Vedic Sanskrit (Hettrich 1988), but correlatives also may have appositive meaning. The feature [Pred] in Hindi requires a local syntactic link in a c-commanded local domain (TP), deriving a predicate interpretation at LF. Local checking is possible within a phase (the CP dominating TP and its adjoined relative CP (3), and creates the syntactic object interpreted at LF with restrictive modification In Sanskrit, however, with the structure (2), all correlative clauses are marked [Rel], both restrictive and appositive clauses.

Correlative cluases do not all have restrictive interpretation in Sanskrit. The feature [Rel] allows anaphoric linking of all kinds of syntactically related clauses, including relatives, but also complement clauses and conditionals. For this reason, Sanskrit allows combinations which are ill-formed in Hindi (5)-(6). First, if there is no correlate XP in Sanskrit, the relative clause gets a conditional interpretation, linking two clauses (5a). The relative phrase has indefinite meaning. Such sentences in Hindi are ill-formed (5b). Second, In Sanskrit, embedded questions must have relative rather than interrogative form (6a), as dependent clauses cannot be marked as both interrogatuve and subordinate. Symmetric adjunction (2) is the only available syntactic relation, linked by [Rel], which follows from the relative lexical form The interrogative intepretation of the relative is provided at LF by the selection requirements of the main verb (6a). The interrogative to relative shift is completely ill-formed in Hindi, which allows both a complementizer marking subordination and interrogative CP (6b). In both cases, [Rel] in Sanskrit reflects relative form without necessarily a relative interpretation. These differences follow from (a) the uninterpretable nature of [Rel] and (b) the absence of [Pred] and MAX in Vedic Sanskrit, and the addition of them as syntactically active interpretable features at some point in the syntactic evolution of the Indic languages from the earliest stages of .Sanskrit.

1. a. [Vedic Sanskrit] [yád(i) īm uśmási kár-tave][karat tát(i)] what-re1 he-acc be-eager-pres-1pl do-inf do-pres-3s that [What(i) we are eager for him to do t], he does that(i)' (R.V. 10.74.6) b. [Hindi] [us-nee joo ciiz-eeN tooR-ii haiN] un-kii kiimat us-kii tankhvaah-see zyaadaa hai

3s-erg rel thing-pl break-pf are 3pl-gen price 3s-gen wages-from more is '[Which things(i) he has broken t]] their(i) price is more than his salary.'

2. [Symmetric adjunction--Hock 1989]

. a.	CP		b.		CP		
	/	\		/		/	
	CP1	CP2		CP1		CP2	
••••	yat (rel)	tat .'that.'		tat 'tha	lt'	yat (rel).	
3. [Asymmetric adjunction- Dayal 1996 Grosu 2002]							
TP*				TP*			
	/ \				/	\	
CP[Rel] TP			Т	Р	CP [Rel]	
relative dor	nain XF	^o correlate	Х	P correl	late	relative domain	

4. Relative clause features (Grosu 2002)

a. [Rel], anaphoric feature checked (not necessarily locally) by some category feature.

b. [Pred] checked locally within phase, by the correlate XP; intersective modification at LF

c. [MAX]: unique individual, defnite reference.

5 a. [**yó(i**) ā márto(i) vadhāya no agne duréva dāśati](j) rel-nom 1pl-acc Agni-voc having evil ways-nom to mortal murder-abl hurt-pres-3s tásmān(j) nah pāhy ámhasah(i) that-abl 1pl-acc protect-imper-2s trouble-abl

[Which mortal with evil intentions hurts us with murder](j), protect us, Agni from this danger(j); or, [if a mortal with evil intentions hurts us with murder], protect us, Agni, from this danger.' R.V. 6.16.31 Hettrich 1988, p. 620

b. [Hindi] Relative with no correlate, no other interpretation

* [jis laRkee-koo anu-nee wahaaN deekh-aa hai] maiN miinaa-see mil ga-ii which girl-dat Anu-erg there see-pf is Ι Mina-with meet go-pf '[Which girl Anu has seen there], I met Mina.'

6.[Sanskrit] Matrix question with question complement, relative as embedded interrogative: nūnám e ām][vátrā . [kó veda mádanti dhūtayah that-acc where-rel enjoy-pres-3pl ascetic-nom-pl who?-nom know-pres-3s now 'Who knows now where the ascetics enjoy themselves (R.V. 5.61.14ab, Etter 1985, p. 201). Interrogative 'where?' kva, kū. is replaced by rel. yátrā 'where'

7. [Hindi] ham-nee (yah) puuch-aa [ki kahaaN/ *jahaaN vee aa-eeNgee] come-fut-3plm we -erg this ask-pf that where-int/*where-rel-rel 3pl 'We asked [where-int/*where-rel they will come].'