Relativization, intonational phrases, and the left periphery of NP and CP Simona Herdan University of Connecticut

This paper discusses novel data regarding relativizer restrictions in Romanian and proposes that the structure of the left periphery of the relativized nominal phrase has a marked effect on the structure of the left periphery of a relative clause. Moreover, I argue that the need to align intonational phrasing with the syntax is responsible for the observed restrictions.

The paradigm is given in (1) for Romanian. The relativizer *care* (which) is the unmarked form, while *ce* is generally used in formal contexts where it need not be inflected. Surprisingly, the bare quantifier *tot* (all) in (1a) can only combine with *ce*, which is not the case when it is accompanied by a noun (overt or covert). The other quantifiers also show no such restriction, as shown by (1d-e).

The proposal I make, which accounts for similar data in the Slavic languages, is that the location of an intonational phrase boundary (IntPB) at the level of the relative clause determines which relativizer is used. As argued by An (2007), the edge of the phase and of the IntP must coincide, i.e the Spec or head of the phase must be pronounced. As CP is a phase parsed as IntP, it is properly marked only if ce, its head, is spelled out. The contrast in (1a) is due to the structures in (2).

Evidence that an IPB plays a role in relativization comes from the data in (3). The bare *all* can be accompanied by a definite article in Romanian, but a relative clause with either relativizer is disallowed. Syntactically, *ce* and *que* are complementizers, as argued by Kayne (1976) for French *que*, while *care* is a phrase occupying a specifier position. The structure I assume for the relative clause in (3) is as in (4), following Kayne (1994) and Bianchi (1999). I propose that the impossibility of (3) is triggered by an IPB between Q and DP (marked by a vertical line |), which makes encliticization of the definite article on Q impossible. IntPBs, I assume, are defined by full phases (contra the Chomskian view that only the complement of the phase head is sent to spellout).

What about the cases in (1b-c)? In the general case, phases determine intonational phrases. However, if a higher phase in the nominal domain is parsed as an IntP, the lower phase has the option of not being parsed as an IntP, eliminating the obligatoriness of ce. This is reminiscent of the idea proposed in Chomsky (1999) that the interpretation of a lower phase is only determined once we reach the next highest phase. This view also eliminates the look-ahead problem inherent in allowing a higher phase to affect the behavior of a lower one. This works as follows: if the relative clause has an overt noun, as in (1b), a DP will be projected which will be parsed as an IntP. Since in (5) D is overtly filled by the article and the raised noun, no problem arises. The presence of the DP has the effect of allowing the CP to not be parsed as an IntP, thus allowing care. In (1c), however, no D is overtly projected, but the quantifier agrees with an NP expressed in the prior discourse. I propose that in these cases, unlike in (1a), noun deletion takes place after intonational phrasing. (1b-c) behave alike because they have the same structure at the relevant level.

Slavic provides evidence that an Agr phrase has the same effect as D. Just like vP in the verbal domain is a phase corresponding to an agreement domain, we can argue that the presence of AgrP in the nominal domain also triggers a phase and hence an IntP. Bošković (2005), among others, argues that languages without articles do not project a DP. Yet, despite showing the same relativizer restriction with bare all (sve) as in (6a), Serbo-Croatian (SC) lacks the restriction with an overt or covert noun, identically to the Romanian pattern above. The sve in (6b) is involved in agreement, just like tot in the Romanian (1c). Finally, notice the contrast between SC (6c-6d) and the Romanian counterparts in (1d-1e). These quantifiers are never involved in agreement, so the lack of D in SC will trigger the restriction just like in (6a).

In sum, the relativizer restrictions discussed above argue for an interaction between the structure of the left periphery in the nominal and in the verbal domains. They provide support for the idea that phenomena at the syntax-phonology interface, such as the proper marking of IntPBs, have an effect on

the syntax proper.

- (1) a. Am cumpărat tot ce/*care mi-a plăcut. have.1sg.aux bought all what/which me.dat-has.aux liked I bought everything I liked.
 - b. Am cumpărat toate cărțile care/ce mi-au plăcut. have.1sg.aux bought all.f.pl books.f.pl which/what me.dat-has.aux liked. I bought all the books I liked.
 - c. Nu mai am lapte. L-am pus pe tot pe care l-am avut. not more have.1sg milk. him.cl-aux put PE all PE which him.cl-aux had I don't have any more milk. I put in all I had.
 - d. Am găsit ceva care mi-a plăcut mult. have.1sg.aux found something which me.dat-has.aux liked.pastp much I found something which I liked a lot.
 - e. Nu am găsit nimic care să-mi placă. not have.1sg.aux found nothing which subj-me.dat like.subj I didn't find anything which I might like.
- (2) a. $[_{QP} \text{ Q tot } [_{CP} \text{ C ce } [_{TopP} \text{ Top } [_{IP} \dots]]]]]$ b. $*[_{QP} \text{ Q tot } [_{CP} \text{ C } \emptyset [_{TopP} \text{ care Top } [_{IP} \dots]]]]]$
- (3) * Le place totul ce/care depășește limita. (Romanian) them.D like all.the what/which exceeds limit.the

 They like everything that is beyond the limit.
- (4) $[_{QP} \text{ Q tot } | [_{DP} \text{ D -ul } [_{CP} \text{ C ce } [_{TopP} \text{ care Top } [_{IP} \text{ depășește } \dots]]]]]$
- (5) $[_{DP} \text{ toate D cărți}_{i}\text{-le } [_{AgrP} \text{ Agr t}_{i} [_{CP} \text{ C } \emptyset [_{TopP} \text{ care Top } [_{IP} \dots]]]]]$
- (6) a. Našao sam sve što/*koje sam želeo. found.m.sg be.aux.1sg all what/which be.aux.1sg wanted.m.sg
 - b. Context: There are 15 girls in the choir, but 5 of them are home sick. Only 10 showed up for the show.

Sve (devojke) koje su došle pevale su punim srcem. all.f.pl (girls) which.f.pl are come.3f.pl sung.3f.pl are full.instr heart.instr All (girls) who came sang whole-heartedly.

- c. Našao sam nešto što/*koje sam želeo. found.m.sg be.aux.1sg something what/which be.aux.1sg wanted.m.sg
- d. Nisam našao ništa što/*koje sam želeo. not-be.aux.1sg found.m.sg nothing what/which be.aux.1sg wanted.m.sg

References: An, Duk-Ho. 2007. Syntax at the PF interface: Prosodic mapping, linear order, and deletion. PhD Dissertation, University of Connecticut. Bianchi, Valentina. 1999. Consequences of antisymmetry - headed relative clauses. Mouton de Gruyter. Bošković, Željko. 2005. On the locality of left branch extraction and the structure of NP. Studia Linguistica 59:1-45. Chomsky, Noam. 1999. Derivation by phase. In MIT Occasional Papers in Linguistics, vol. 18. Kayne, Richard. 1976. French relative que. In Current studies in Romance linguistics, ed. M. Luján and F. Hensey, 255-299. Georgetown University Press. Kayne, Richard. 1994. The antisymmetry of syntax. MIT Press.