

# Relative complementisers in Serbo-Croatian comparatives

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14th Annual Meeting of the Slavic Linguistics Society  
Potsdam, 11–13 September 2019

## Introduction

comparatives expressing inequality:

(1) Ralph is more creative than Paul (is).

clausal comparatives introduced by a complementiser like *than* – comparative subclause often elliptical (Bacskai-Atkari 2018)

## Serbo-Croatian

appearance of *što* 'what' in Serbo-Croatian comparatives expressing inequality:<sup>1</sup>

- (2) a. Pavao je viši nego **što** je visok Petar.  
Paul is taller than what is tall Peter  
'Paul is taller than Peter.'
- b. Pavao je viši nego Petar.  
Paul is taller than Peter  
'Paul is taller than Peter.'

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<sup>1</sup>I owe many thanks to Boban Arsenijević for his indispensable help with the Serbo-Croatian data.

## Distribution

*što* a lower complementiser in a double CP structure  
(Bacskai-Atkari 2016) – distribution:

- available in non-elliptical subclauses like (2a) – obligatory for most speakers (see Ridjanovic 1984)
- prohibited in elliptical subclauses like (2b)

→ question: why the appearance of *što* is conditioned this way

# Proposal

the distribution of *što* in comparatives is contingent on two factors:

- its availability as a relative complementiser in ordinary relative clauses
- its carrying an [u-rel] feature

→ the distribution of *što* in comparatives can be drawn back to its specific behaviour in ordinary relative clauses

## Relative clauses

Serbo-Croatian *što*: ordinary *wh*-operator in interrogatives – similar to English *what*

- (3) **Što** je Marija videla?  
what AUX Mary seen  
'What did Mary see?' (Halpern 1995, 77)

*što* does not take an overt lexical NP ↔ *koji* 'which':

- (4) **Koji** čovek je voleo Mariju?  
which.NOM man AUX seen Mary  
'Which man saw Mary?' (Halpern 1995, 78)

# English

same contrast between English *what* and *which*:

- (5)
- a. **What** did Mary see?
  - b. **Which** man did Mary see?

## Differences in relative clauses

- (6) a. čovjek **što** puši  
man that smokes  
'a/the man that smokes/is smoking'  
(Gračanin-Yuksek 2013, 27)
- b. čovjek **koji** puši  
man which.NOM smokes  
'a/the man that smokes/is smoking'  
(Gračanin-Yuksek 2013, 26)



## Syntactic difference

- *što* a relative complementiser
- *koji* a relative pronoun

# Properties

properties of *što* in relative clauses (Gračanin-Yuksek 2013):

- not sensitive to the head noun (e.g. it can occur with a human referent, unlike in interrogatives)
- not inflected for case ( $\leftrightarrow$  *koji*, see also Arsenijević & Gračanin-Yuksek 2016)
- in non-subject relative clauses it can co-occur with a resumptive pronoun

# English

behaviour of English *what* similar in relative clauses (non-standard dialects) – not restricted to non-human referents (↔ interrogatives)

- (7) %See he was the man **what** brought in decasualization during the war.  
(BNC H5H; Kortmann & Wagner 2007, 291)

→ *što* and *what* available as relative complementisers anyway

## Comparative clauses

comparatives have a double CP structure (Bacskai-Atkari 2018):

- higher CP hosting the canonical comparative complementiser  
– English *than*, Serbo-Croatian *nego/no*
- lower CP hosting the comparative operator (overt or covert)  
in its specifier

## Doubling

doubling in English:

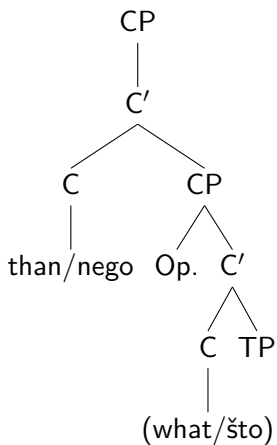
(8) %Paul is taller than **what** Mary is.

doubling in Serbo-Croatian:

(9) Pavao je viši nego **što** je visok Petar.  
Paul is taller than what is tall Peter  
'Paul is taller than Peter.'

## Structure

(10)



## Operator movement

comparative operator moves to the left – Chomsky (1977), Kennedy (2002)

operator a relative operator – cannot remain in situ; it can be overt or covert (Bacskai-Atkari 2018)

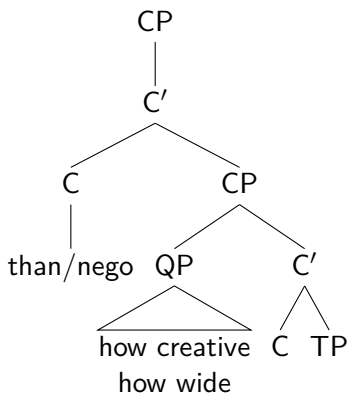
non-standard English:

- (11) a. %Ralph is more creative than **how** creative Paul is.  
b. %The desk is longer than **how** wide the office is.

comparative operators always allow (and often obligatorily require) the co-presence of a lexical AP in the [Spec,CP] position (see Bacskai-Atkari 2018 cross-linguistically)

## Structure

(12)





## English

lexical AP always in the base position with *what* ( $\leftrightarrow$  *how*), see Izvorski (1995) and Bacskai-Atkari (2018):

- (13) a. \*The desk is longer than **what** wide the office is.  
b. %The table is longer than **what** the office is wide.

→ *what* in comparatives is a relative complementiser – the lower C carries [rel] anyway and *what* is available as a relative complementiser anyway

## Serbo-Croatian

(14) a. Pavao je viši nego **što** je visok Petar.  
Paul is taller than what is tall Peter  
'Paul is taller than Peter.'

b. Sto je duži nego **što** je visok ured.  
table is longer than what is wide office  
'The table is longer than the office is wide.'

→ *što* in comparatives is a relative complementiser – the lower C carries [rel] anyway and *što* is available as a relative complementiser anyway

→ reason for the appearance of *što* in comparatives partly explained by its more general behaviour

## Additional question

why it does not appear in elliptical clauses

- (15) Pavao je viši nego Petar.  
Paul is taller than Peter  
'Paul is taller than Peter.'

same in English:

- (16) a. Ralph is more creative than Paul (is).  
b. %Ralph is more creative than what Paul \*(is).

elliptical structures generally lack the lower CP (Bacskai-Atkari 2016) → lack of operator movement, ellipsis involves the deletion of the verb and the non-moved operator at PF

## More on cross-linguistic differences

possible expectation: if the lower C is specified as [rel], then relative complementisers are generally available

doubling patterns either with a relative operator or with a relative complementiser attested in various languages (Bacskai-Atkari 2016)

but: not all relative complementisers available in comparatives

## English *that*

canonical relative complementiser

(17) This is the cake **that** I baked.

not available in comparatives:

(18) \*Ralph is more creative than **that** Paul is.

asymmetry in English (between *that* and *what*) indicates that the difference holds not only between different languages

→ reason should have to do with the formal properties of the relative markers in question

# Typology

two major strategies:

- relative pronoun strategy
- relative complementiser strategy

two sources of relative markers:

- demonstrative elements
- *wh*-elements

## Four major patterns

- demonstrative-based relative pronoun (*d*-pronoun)
- *wh*-based relative pronoun (*wh*-pronoun)
- demonstrative-based relative complementiser (*d*-complementiser)
- *wh*-based relative complementiser (*wh*-complementiser)

fifth possibility: a combination of a pronoun and a complementiser  
– such doubling well-attested in Germanic languages

## Possibilities

	<i>d</i> -complementiser	<i>wh</i> -complementiser
<i>d</i> -pronoun	(+)	+
<i>wh</i> -pronoun	+	-

*d*-pronoun + *d*-complementiser: most probably not genuine doubling (complementiser a mere finiteness marker)



## *d*-pronoun + *wh*-complementiser

e.g. South German dialects (Brandner & Bräuning 2013, Weiß 2013, Fleischer 2017)

- (19) Des Geld, **des wo** ich verdiene, des geheert mir.  
the.N money that.N REL I earn.1SG that.N belongs I.DAT  
'The money that I earn belongs to me.'  
(Hessian; Fleischer 2017)

## *wh*-pronoun + *d*-complementiser

e.g. English (see Van Gelderen 2009), marginally Swedish<sup>2</sup>

- (20) a. It's down to the community **in which that** the people live.  
(Van Gelderen 2013, 59, ex. 8)
- b. Detta är studenten **vilken som** bjöd in Mary.  
this is the student which that invited in Mary  
'This is the student who invited Mary.'  
(Bacskai-Atkari & Baudisch 2018)

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<sup>2</sup>This option was indicated as possible by the informant from the Färgelanda municipality but not by the one from Göteborg.

## Proposal

asymmetric doubling patterns ( $d+wh$  and  $wh+d$ ) involve canonical feature checking: [i-rel] and [u-rel]

- $d$ -elements are [i-rel]
- $wh$ -elements are [u-rel]

English *what* and Serbo-Croatian *što* are  $wh$ -elements → they are specified as [u-rel] and trigger the movement of the comparative (relative) operator to the CP

also: they do not type the clause as relative proper → additional comparative layer possible

## Conclusion

Serbo-Croatian comparatives regularly involve *što* below *nego*

- *što* is the regular relative complementiser
- *što* is *wh*-based and specified as [u-rel]
- comparative clauses involve a lower CP specified as [rel], unless the clause is elliptical
- comparative clauses allow an overt [u-rel] complementiser that does not type the clause as relative proper – additional comparative CP possible

→ properties of Serbo-Croatian comparatives involving *što* can be derived from the general properties of this element and of comparative clauses

→ not a construction-specific phenomenon

Thank you!

Danke!

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