Wh-clauses as nominal complements: Evidence from Greek

Christos Vlachos^{1,2} & Konstantina Balasi¹ ¹University of Patras, ²Hellenic Open University

BCGL 13: "The syntax and semantics of clausal complementation" 16-18 December @CRISSP



Claim

Typical classification of clausal selection i

- 3 classes of predicates w.r.t. to type of clause(s) they select (e.g., Grimshaw 1979; Groenendijk and Stokhof 1984; Lahiri 2002)
 - (1) Antirogative/ANT-class (nomizo ("think")) :
 - a. Nomizi [oti i Anna efighe]_{that-clause} think-3sG that the-NOM Anna-NOM left-3sG "S/he thinks that Anna left."
 - b. *Nomizi [pjos efighe]_{wh-clause} think-3sg who-Nom left-3sg "S/he thinks who left."

Typical classification of clausal selection ii

- (2) Rogative/RG-class (anarotjeme ("wonder")) :
 - a. *Anarotjete [oti i Anna efighe]_{that-clause} wonder-3sG that the-NOM left-3sG "S/he wonders that Anna left."
 - b. Anarotjete [pjos efighe]_{wh-clause} wonder-3SG who-NOM Anna-NOM

"S/he wonders who left."

Typical classification of clausal selection iii

- (3) Responsive/RS-class (ksero ("know")) :
 - a. Kseri [oti i Anna efighe]_{that-clause} know-3sG that the-NOM Anna-NOM left-3sG "S/he knows that Anna left."
 - b. Kseri [pjos efighe]_{wh-clause} know-3sg who-NoM left-3sg

"S/he knows who left."

Ross' classification of wh-clause selection i

- RG-class & RS-class each select a distinct type of *wh*-clause:
 - (4) RG-predicate selects disjunctive *wh*-clause (DWH) :

[Anarotjete]_{RG-predicate}[pjosefighe]_{DWH}wonder-3SGwho-NOMleft-3SG"S/he wonders who left."

- Information-seeking reading ("question")
- The speaker has total ignorance about the possible answer(s) to the question: "which person *x* is such that *x* left?"

(5) Rs-predicate selects conjunctive *wh*-clause (CWH) :

[Kseri]_{RS-predicate}[pjosefighe]_{CWH}know-3SGwho-NOMleft-3SG"S/he knows who left."

- No information-seeking reading (i.e., "no question")
- The speaker has total knowledge about the possible answer(s) to the question: "for every person *x*, [I know] if *x* left."
- Reminiscent of factive reading (Kiparsky and Kiparsky 1971)

- Ross (n.d.) concentrates:
 - on RG-class & RS-class
 - о the semantics of Dwн & Cwн
- More recent analyses focus on the semantics of RG-class & RS-class (e.g., Uegaki 2015; Theiler et al. 2019; Mayr 2019)
- So:
 - ANT-class left outside "wh-clausology" (Ross' term); and
 - Little (if at all) concern about syntax

- A proper subclass of ANT-class combines with CWH :
 - The ANT-predicate must be licensed under certain environments
 - The ANT-predicate must be able to combine with Free Relative (FR)
 - The ANT-predicate may select DP
- CWH is :
 - Nominal (*wh*-clause headed by D)
 - Complement (to ANT-predicate)

- Facts
- Analysis
- Extensions

Facts

✓[ANT-predicate + сwн] і

- Typically, *pistevo* ("believe") takes a *that*-clause as its complement (cf., (6a)), and is ungrammatical with a *wh*-clause (cf., (6b)):
 - (6) a. Pistevi [oti i Anna efighe]_{that-clause} believe-3sG that the-NOM Anna-NOM left-3sG
 "S/he believes that Anna left."
 - b. *Pistevi [pjos efighe]_{wh-clause} believe-3sG who-NOM left-3sG

"*S/he believes who left."

✓ [ANT-predicate + сwн] іі

- However, under certain environments, *pistevo* ("believe") may combine with a *wh*-clause. Two of these are:
 - (7) a. Negative quantifier:

Dhen pistevi [pjos efighe]_{wh-clause} NEG believe-3SG who-NOM left-3SG "S/he does not believe who left."

b. Imperative:

Pistepse [ti su leo]_{wh-clause} believe-2SG what you-CL say-1SG "Believe what I tell you."

- No information-seeking reading (i.e., "no question")
- There is total knowledge from the part of the speaker. Reminiscent of factive reading

✓[ANT-predicate + сwн] ііі

• Like *pistevo* ("believe"):

(8) a. *amfisvito* ("dispute") b. anakalipto ("discover") c. apanto ("reply") d. apokalipto ("reveal") e. apofasizo ("decide") f. arnume ("deny") g. dhexome ("accept")

h. *fantazome* ("imagine")

- i. fonazo ("shout")
- j. ipotheto ("assume")
- k. iponoo ("imply")
- l. madevo ("guess")
- m.matheno ("learn")
- n. omologho ("confess")
- o. simfono ("agree")

✓ [ANT-predicate + сwн] iv

- What defines the ANT-predicates in (8) as a proper subclass is two shared properties:
 - They combine with FR; E.g.:
 - (9) a. Pistevi [opjon(dhipote) exi kala epixirimata]_{FR}
 believes-3sG who(ever) has-3sG good arguments-ACC
 "S/he believes who(ever) has good arguments."
 - b. Amfisviti [oti(dhipote) dhen bori na apodhiksi]_{FR} disputes-3SG whatever NEG can-3SG to-PRT prove-3SG "S/he disputes whatever s/he cannot prove."
 - c. Arnite [oti(dhipote) akui]_{FR} denies-3sG whatever hears-3sG "S/he denies whatever s/he hears."

✓ [ANT-predicate + CWH] v

- They select DP; E.g.:
- (10) a. Pistevi [_{DP} tin alithia] believes-3SG the-ACC truth-ACC "S/he believes the truth."
 - b. Amfisviti [_{DP} tin alithia] disputes-3SG the-ACC truth-ACC "S/he disputes the truth."
 - c. Arnite [_{DP} tin alithia] denies-38G the-ACC truth-ACC "S/he denies the truth."

X[ANT-predicate + сwн] і

- Contrary to the previous subclass of ANT-predicates, the other subclass of ANT-predicates does not combine with a *wh*-clause (despite licensing; cf., (11a)), nor with FR and DP (cf., (11b) & (11c)):
 - (11) a. *Dhen nomizi [pjos efighe]_{wh-clause} NEG thinks-3SG who-NOM left-3SG "*S/he does not think who left."
 - b. *Nomizi [oti(dhipote) akui]_{FR} thinks-3SG whatever hears-3SG "*S/he thinks whatever s/he hears."
 - c. *Nomize [_{DP} tin apantisi] thought-1SG the-ACC answer-ACC "*S/he thought the answer."

X[ANT-predicate + сwн] іі

• Like *nomizo* ("think"):

(12) a. efxome ("wish")
b. elpizo ("hope")
c. epimeno ("insist")
d. iposxome ("promise")
e. isxirizome ("claim")
f. orkizome ("swear")
g. paraponjeme ("complain")
h. theoro ("consider")

Analysis

- Wh-clause:
 - $\circ~$ yields no information-seeking reading ("no question")
 - implies that the speaker has total knowledge (of the answer(s)); implies a factive reading
- ANT-predicate
 - combines with *wh*-clause only if it combines with FR and/or DP ("*pistevo*-type")
 - does not combine with *wh*-clause only if it does not combine with FR and/or DP ("*nomizo*-type")

The analysis that the facts underpin



- *wh*-clause is CWH headed by D which is complement to ANT-predicate.
- pistevo ("believe") (c-/s-)selects D, but nomizo ("think") does not.
- wh-word/phrase is not interrogative by default (indefinite?; Roussou's talk @BCGL13)
- *wh*-movement does not take place for +Q reasons (if so, then why?)

Extensions

Comparison with "Unselected Embedded Questions" (UEQ; Adger and Quer 2001) i

- Our analysis in (13) is comparable to the treatment of UEQ by Adger and Quer (2001): D heads *if*-clause and is complement to Rs-predicate.
- In fact, the contexts that license UEQ also license our CWH. Some examples are:
 - (14) Negative quantifiers:
 - i. No one admitted/heard/said [if the bartender was happy].

Adger and Quer (2001: 112, (21))

ii. Kanenas dhen pistepse pjos itan piso no one NEG believed-3SG who-NOM was-3SG behind apo ti listia. from the robbery
"No one believe who was behind the robbery." (15) 'Only' focus:

i. **Only** July admitted/heard/said [if the bartender was happy].

Adger and Quer (2001: 112, (22))

ii. Mono i Maria pistepse pjos itan only the-NOM Mary-NOM believed-3SG who-NOM was-3SG piso apo ti listia.
behind from the robbery
"Only Mary did not believe who was behind the robbery."

(16) Adversative predicates:

i. He **refused** to admit [if they had the keys].

Adger and Quer (2001: 112, (24))

 ii. Arnithike na pistepsi pjos itan piso refused-3sG to believe-3sG who-NOM was-3sG behind apo ti listia. from the robbery

"S/he refused to believe who was behind the robbery."

- Our analysis in (13) is comparable to the treatment of "Future *wh*-clauses" by Agouraki (2005): D heads a *wh*-clause (with intentional reading) and is complement to a predicate that does not usually select clausal complements:
 - (17) Exo idhi aghorasi ti tha foreso sto parti. have-1sG already bought-1sG what will wear-1sG at-the party "I have already bought what I am going to wear at the party." (Agouraki 2005: 285, (1b))

References i

- Adger, David, and Josep Quer. 2001. The syntax and semantics of unselected embedded questions. *Language*.
- Agouraki, Yoryia. 2005. WH-clauses in dp-positions. In *Advances in Greek Generative Syntax*, eds. Melita Stavrou and Arhonto Terzi. Vol. 76 of *Linguistik aktuell / linguistics today*, 285--329. John Benjamins Publishing Company.
- Grimshaw, Jane. 1979. Complement selection and the lexicon. *Linguistic Inquiry* 10: 279--326.
- Groenendijk, J., and M. Stokhof. 1984. Studies on the semantics of questions and the pragmatics of answers. PhD diss, University of Amsterdam, Amsterdam.
- Kiparsky, Paul, and Carol Kiparsky. 1971. Fact. In *Semantics. an interdisciplinary reader in philosophy, linguistics, and psychology*, eds. D. D. Steinberg and L. A. Jakobovits, 345--369. Cambridge University Press.
- Lahiri, Utpal. 2002. *Questions and Answers in Embedded Contexts*. Oxford: Oxford University Press.

- Mayr, C. 2019. Triviality and interrogative embedding: Context sensitivity, factivity and neg-raising. *Natural Language Semantics* 27 (3): 227--278.
- Ross, John. Conjunctive and Disjunctive *wh*-Clauses. Unpublished manuscript, University of North Texas.
- Theiler, N., Floris Roelofsen, and M. Aloni. 2019. Picky predicates: Why believe doesn't like interrogative complements and other puzzles. *Natural Language Semantics* 27 (2): 95--134.
- Uegaki, Wataru. 2015. Interpreting questions under attitudes. PhD diss, Cambridge: Massachusetts Institute of Technology.



This presentation has received funding from the Hellenic Foundation for Research and Innovation (H.F.R.I.), through the University of Patras. This project reflects only our views and the H.F.R.I. is not responsible for any use that may be made of the information it contains.

This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License. To view a copy of this license, visit:

http://creativecommons.org/licenses/by-sa/4.0/