

Evidence for successive cyclic wh-movement

1. Languages with wh-agreement
Irish, Chamorro, Palauan, Hausa, Passamaquoddy, Coptic
2. Successive inversion phenomena
Belfast English, Spanish, French
3. Intermediate copy pronunciation
Child English, German dialects
4. Wh-scope marking ('partial wh-movement')
German, Romany, Hungarian, Hindi
5. Stranded *all* in West Ulster English
6. Intermediate reconstruction effects
7. Zaenen, Annie. 1983. On syntactic binding. *Linguistic Inquiry* 14:469-504.

1. Languages with wh-agreement

(see Haik, Isabelle. 1990. Anaphoric, pronominal, and referential INFL. *Natural Language and Linguistic Theory* 8: 347-374 for an overview)

Irish (data from James McCloskey, 1979, *Transformational syntax and model theoretic semantics: A case study in Modern Irish*; D. Reidel: Dordrecht)

Declaratives:

- (1) Deir sé go dtuigeann sé an scéal.
says he that understands he the story
'He says that he understands the story.'
- (2) Dúirt sé gur bhuail tú é.
said he C struck you him
'He said you struck him.'

Yes-no Questions:

- (3) An bpósfaidh tú mé?
Q will.marry you me
'Will you marry me?'

WH-Questions:

- (4) Cén fear a^L thiteann go talamh
which man C falls to earth
'Which man falls to earth?'
- (5) Cé [a^L bhuail tú] ?
who C struck you
'Who did you hit?'
- (6) Cé a^L mheas tú a^L chonaic tú?
who C thought you C saw you
'Who did you think that you saw?'
- (7) Cén t-úrscéal a^L mheas mé a^L dúirt sé a^L thuig sé.
which novel C thought I C said he C understood he
'Which novel did I think he said he understood?'

- (8) Níl a fhios agam cén fear a thiteann go talamh
I don't know which man C falls to earth
 'I don't know which man falls to earth.'
- (9) Níl a fhios agam cé [a bhuaíl tú]
I don't know who C struck you
 'I don't know who you hit.'
- (10) Níl a fhios agam cén t-úrscéal a^l mheas mé a^l dúirt sé a^l thuig sé.
I don't know which novel C_{trace} thought I C_{trace} said he C_{trace} understood he
 'I don't know which novel I thought he said he understood.'

aL also occurs in clefts, relative clauses, 'reduced' clefts, certain manner and temporal adjunct clauses, and in 'negative emphatic' constructions

Chamorro (data from Chung, Sandra. 1998. *The design of agreement: Evidence from Chamorro*. Univ of Chicago Press: Chicago.)

Yes-no: Chamorro *kao* left-peripherally (cf. Irish *a^N*)

- (11) Kao un-kuentusi gui? C35
Q agr-speak.to him/her
 'Did you speak to him/her?'

Constituent questions: the interrogative phrase is left-peripheral in the clause, immediately preceding the complementizer *na* (which can be null):

- (12) a. Ginin hayi na un-chuli' i lepblu? C184
 from who? Comp agr-take the book
 'From whom did you take the book?'
- b. Hayi kumákati? C184
 who? WH[nom].agr.cry.Prog
 'Who is crying?'
- c. Hafa malago'-mu? C184
 what? WH[obl].want-agr
 'What do you want?'
- d. Kuantu biahi mu-mímisa? C185
 how.many? time agr-go.to.mass.Prog
 'How often does he go to church?'
- (13) a. Hayi malago'-ña si Juan na u-kuentus
 who? WH[obl].want-agr Juan Comp WH[nom].agr-speak
 yan i ma'estra? C191
 with the teacher
 'Who does Juan want to speak (lit. that should speak)
 with the teacher?'
- (14) a. Hafa fina'tinas-ñiha i famalao'an? C201
 what? WH[obj].make-agr the women
 'What did the women cook?'
- b. *Hafa ma-fa'tinas i famalao'an? C201
 what? WH[obj].agr-make the women
 (What did the women cook?)

Wh-agreement with a nominative is realized overtly only with realis transitive verbs:

- (15) a. Hayi na famagu'un siha pumatik i bola? C201
 who? L children Pl WH[nom].kick the ball
 'Which children kicked the ball?'
- b. Hayi mu-lalatdi siha? C201
 who? WH[nom]-scold them

- 'Who scolded them?'
- c. Hayi um-ayuda hao? C201
 who? WH[nom]-help you
 'Who helped you?'
- (16) Hayi sinangane-nña si Juan malago'-ña pära
 who? WH[obj2].say.to-agr Juan WH[obj].want-agr Fut
 u-bisita? C211
 WH[obj].agr-visit
 'Who did Juan tell (us) that he wants to visit?'
- (17) a. Ha-fa'gasi si Juan i kareta. C236
 agr-wash Juan the car
 'Juan washed the car.'
- b. Hayi fuma'gasi i kareta? C236
 who? WH[nom].wash the car
 'Who washed the car?'
- c. Hafa fina'gasése-nña si Henry pära hagu? C236
 what? WH[obj].wash-agr Henry for you
 'What is Henry washing for you?'

Inflection on verbal and adjectival predicates in *wh*-questions:

[Nom]	-um- when the predicate is realis and transitive
[Obj, Obj2]	(optional) nominalization, plus <i>-in-</i> when the predicate is transitive
[Obl]	nominalization, plus (optional) <i>-in-</i> when the predicate is unaccusative

Overt realization of *wh*-agreement *replaces* regular subject-verb agreement.

If *wh*-agreement is *not* overt, then the predicate has the regular subj-verb agreement.

E.g., with questioned subjects of transitive but irrealis predicates:

- (18) Hayi pära u-sangani yu' ni ansa? C238
 who? Fut WH[nom].agr-say.to me Obl answer
 'Who is going to tell me the answer?'

and with questioned objects if the nominalization option isn't chosen:

- (19) Hafa un-kákannu'? C239
 what? WH[obj].agr-eat.Prog
 'What are you eating?'

2 Successive inversion

Belfast English (data from Alison Henry. 1995, *Belfast English and Standard English: Dialect variation and parameter setting*. OUP: Oxford)

- (20) a. Who did John hope [would he see ___]?
 b. What did Mary claim [did they steal ___]?
 c. I wonder what did John think would he get ___?
 d. Who did John say [did Mary claim [had John feared [would Bill attack ___]]?]

Spanish and French ('stylistic inversion'); Torrego 1984, Kayne and Pollock 1999, Pesetsky and Torrego 2001

3 Wh-copy

Child English (data from Stephen Crain and Diane Lillo-Martin. 1999. *An introduction to linguistic theory and language acquisition*, Blackwell: Malden, Mass., p. 238)

- (21) a. What do you think what Cookie Monster eats? (age 5;0)
b. Who do you think who Grover wants to hug? (age 4;9)
c. What do you think what's in that box? (3;3)

German

- (22) Wer glaubst du, wer nach Hause geht?
who think you who to home goes
'Who do you think is going home?'

4 Partial wh-movement (aka wh-expletives, aka wh-scope marking)

(see Dana McDaniels 1988 *NLLT* and Julia Horvath 1997 *NLLT*)

German

- (23) Was glaubst du, mit wem er gesprochen hat?
what think you with whom he spoken has
'With whom do you think that he spoke?'

Hungarian

- (24) Mit gondolsz, hogy kit látott János?
what.ACC you.think that who.ACC saw.3sg J.NOM
'Who do you think that Janos saw?'

5 Stranded *all* in West Ulster English

(James McCloskey. 2001. Quantifier float and *wh*-movement in an Irish English. *Linguistic Inquiry* 31:57-84.)

- (25) a. What all did he say (that) he wanted?
b. What did he say (that) he wanted all?
c. What did he say all (that) he wanted?
- (26) a. Where do you think all they'll want to visit?
b. Who did Frank tell you all that they were after?
c. What do they claim all (that) we did?

6 Intermediate reconstruction

(Fox, Danny. 1999. Reconstruction, Binding Theory, and the interpretation of chains. *Linguistic Inquiry* 30: 157-196.)

- (27) a. [Which paper that he₁ wrote for Ms. Brown₂] did every boy₁ hope that she₂ 'd regrade?
(Example answer: His worst one.)
b. * [Which book that he₁ asked Ms. Brown₂ for] did she₂ say every boy₁ had to return by Monday?