Null Arguments and Variation in the Availability of Coordinated-WH Questions

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May 8, 2015
Coordinated-WH questions – two or more fronted WH-expressions conjoined by *and*

(1) **When and where** is the party?
Perplexing, because the coordinated-WH expression is not a constituent

(2) \([\text{when}_{\text{adj}} \text{ and where}_{\text{adj}}]\) is the party?

(3) \([\text{kto}_{\text{arg}} \text{ i kiedy}_{\text{adj}}]\) kupił prezent dla Adama?
   who \text{ and when} \text{ buy.3sg.pst gift} \text{ for Adam}
   'Who and when bought the gift for Adam?'

(4) \([\text{kto}_{\text{arg}} \text{ i co}_{\text{arg}}]\) kupił dla Adama?
   who \text{ and what} \text{ buy.3sg.pst for Adam}
   'Who and what bought for Adam?'
Cross linguistic variation: English & co.

<table>
<thead>
<tr>
<th>English</th>
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<tbody>
<tr>
<td>ADJ &amp; ADJ</td>
<td>When and where is the party</td>
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<td>ARG &amp; ADJ</td>
<td>*Who and when ate the last piece of pizza?</td>
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Cross linguistic variation: English & co.

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<th>Role Combination</th>
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*Who and when ate the last piece of pizza?*

*What and when did you eat?*

(Whitman 2002)
Cross linguistic variation: Polish & co.

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• Polish & co. (Hungarian, Romanian, etc):

✓ ADJ & ADJ kiedy i gdzie bedzie impreza? when and where be.3sg.fut party 'When and where is the party going to be?'

✓ ARG & ADJ co i gdzie kupiles dla Adama? what and when buy.3sg.pst for Adam 'What and where did you buy for Adam?'

✓ ARG & ARG kto i co kupil dla Adama? who and what buy.3sg.pst for Adam 'Who and what bought for Adam?'
What is the source of this variation in the ability to include argument-WH in CWH?

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One intuitive option: Multiple-WH fronting

- English & co. do not allow multiple-WH fronting
- Polish & co. do allow multiple-WH fronting
What is the source of this variation in the ability to include argument-WH in CWH?

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Proposal:
This variation is not due to multiple-WH fronting...

Test case: Italian
Multiple-WH questions are ungrammatical in Italian (Rizzi 1978), and yet...

...CWH questions are grammatical:

**SUBJ & ADJ:**

*chi e* **quando** ha mangiato l’ultima fetta di pizza?
*who and* **when** *eat.3sg.pst* *last piece of pizza*

*‘Who and when ate the last piece of pizza?’*
Italian does not allow OBJ & ADJ...

*Che cosa è quando hai comprato?
What and when buy.2sg.pst
'What and when did you buy?'

Except:
Che cosa è quando hai mangiato?
What and when eat.2sg.pst
'What and when did you eat?'

...nor ARG & ARG

(18) *Chi è che cosa ha comprato?
Who and what buy.3sg.pst
'Who and what bought?'
Adding in Italian:

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Note:
If this were about multiple-WH questions, Italian would not even be on the map.

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- eat

So what's going on?
Proposal:
Ability to include ARG WH expression in a CWH has to do with the ability to “drop” that argument from the main clause
ADJ & ADJ in English & co:

When and where is the party?
[when is the party] & [where is the party]
[when is the party] & [where is the party]

(Giannakidou & Merchant 1998)
ARG & ADJ in English & co:

*Who and when bought the doll?
   [who bought the doll] & *[when bought the doll]

*What and when did you fix?
   [what did you fix] & *[when did you fix]
ARG & ADJ in English & co:

*Who and when bought the doll?  
[who bought the doll] & *[when bought the doll]

*What and when did you fix?  
[what did you fix] & *[when did you fix]

What and when did you eat?  
[what did you eat] & [when did you eat]
SUBJ & ADJ in Italian (pro-drop):

Chi e quando ha mangiato l'ultima fetta di pizza

[chi ha mangiato l'ultima fetta di pizza]  
who ate the last piece of pizza

& [quando pro ha mangiato l'ultima fetta di pizza]  
& when did pro eat the last piece of pizza
OBJ & ADJ in Italian:

*Che cosa e quando hai comprato?  
[che cosa hai comprato] & *[quando hai comprato]  
*what did you buy & when did you buy

Che cosa e quando hai mangiato?  
[che cosa hai mangiato] & [quando pro hai mangiato]  
*what did you buy & when did you buy it?
SUBJ & ADJ in Polish (pro-drop):

Kto i kiedy kupił prezent dla Adama?

[kto₁, t₁ kupił prezent dla Adama]

who t buy.3sg.pst gift for Adam

Who bought the gift for Adam

& [ kiedy₂ pro kupił prezent dla Adama t₂ ]

& when pro buy.3sg.pst gift for Adam t

and when did pro buy the gift for Adam?
OBJ & ADJ in Polish:

Co i kiedy kupiles?
*What and when did you buy?*

[co₁ pro₃ kupiles t₁ ] ...
what pro buy.2sg.pst t
*What did you buy*

& [kiedy₂ pro₃ kupiles pro₄ t₂ ]
& when pro bought pro t
& when did you buy (it)?
ARG & ARG in Polish:

Kto i co kupił?
Who and what bought?

[ kto₁ t₁ kupił pro₃ ]
what t buy.3sg.pst pro

& [ co₂ pro₄ kupił t₂ ]
what pro buy.3sg.pst t

'Who and what bought?'
One more time:

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What's at play:

- *pro* drop
- implicit arguments

→ these both allow a given argument to be phonologically null in the main clause

But implicit arguments and *pro*-drop are different beasts, and we know not all *pro*-drop is equal and not all implicit arguments are equal.
Conclusion & Further Questions:

Implicit arguments and pro-drop both show a correlation with argument WH expressions in CWH...

...but does the syntax really just care about the 'silence' that they produce, or is there some deeper syntactic property at work? What does this tell us about CWH?
Selected References


Larson, Bradley. 2013. The Syntax of Non-Syntactic Dependencies. m.s.


Thank you to Brad Larson, David Pesetsky, and Danny Fox for their helpful discussion and comments, and to the audiences at the 4th Annual Harvard Graduate Student Workshop in Linguistics, the LSA 2015, and MIT LFRG for their thoughtful questions.

Thank you also to my informants: Krzysztof Gantner, Daniel Margulis, Virginia Calastri, Emiriona, Sandra Martinelli, Dora Mihoc, Andreea Nicolae, Aurore Gonzalez.