The Structure of Why

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Where is \textit{why}? 

Two ideas on the syntax of \textit{why}: 

\begin{itemize}
  \item \textbf{EM}: Externally merged at C/CP (Rizzi 1990, 2001; Ko 2004, 2005; Stephanov and Tsai 2008, etc.)
  \item \textbf{Movement}: Merged lower than CP and moved to Spec,CP (FocP, IntP...) (e.g., Shlonsky and Soare 2011)
\end{itemize}

Proposal:
Both EM and movement options exist;
Strong Uniformity predicts whether EM exists in a language, and for the movement option, what type of movement applies to 
\textit{why}. 

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Por qué ‘why’ in Spanish

Showing both options (cf. Ochi 2014)

(1) a. Por qué miró Juan a María?
   why looked at Juan A María
   ‘Why did Juan look at María?’

   b. Por qué Juan miró a María?
      why Juan looked at A María
      ‘Why did Juan look at María?’

(2) a. Qué vio Juan?
       what saw Juan
       ‘What did Juan see?’

   b. *Qué Juan vio?
      what Juan saw
      ‘What did Juan see?’
Ambiguity from movement

(3) a. Por qué pensaste tú que Juan vio a María? (ambiguous)
   why thought you that Juan saw A María
   ‘Why did you think that Juan saw Maria?’
   
   b. Por qué tú pensaste que Juan vio a María? (unambiguous)
   why you thought that Juan saw A María
   ‘Why did you think that Juan saw Maria?’
   (Uriagereka 1988, Boeckx 2008; quoted in Ochi 2014)

How come (Collins 1991)

(4) a. How come you left?
   b. *How come did you leave?
   c. How come John said Mary left? (unambiguous)
   d. Why did John say that Mary left? (ambiguous)
A gap in the paradigm

Ochi (2014) assumes that languages have both options, including Chinese and Japanese, the latter with *naze* ‘why’. This is true for Chinese, which has the EM ‘how come’ *zenme* (Tsai 2008). It must be externally merged at the position where it takes scope, just like *how come* in English.

(5)  *Akiu renwei [Xiaodi *zenme* hui chiuli zhe-jian shi]?  
Akiu think Xiaodi how will handle this-CL matter  
‘How come Akiu thinks Xiaodi will handle this matter t]?

(6)  Akiu renwei [Xiaodi *weishenme* hui chiuli zhe-jian shi]?  
Akiu think Xiaodi why will handle this-CL matter  
‘Why does Akiu think that Xiaodi will handle this matter t]?

But there is no evidence that Japanese has the EM option. This is a gap in the paradigm. Why?
Strong Uniformity

(7) Strong Uniformity (Miyagawa 2010; based on the Uniformity Principle, Chomsky 2001)

Every language shares the same set of grammatical features, and every language overtly manifests these features.

Agreement-based and discourse configurational languages

(9) Agreement-based language

(10) Discourse configurational language
Predictions

(11) Some predicted languages

Category I: $C_\phi, T_\delta$ – Japanese, Korean

Category II: $C_\delta, T_\phi$ – English

Category III: $C, T_{\phi/\delta}$ – Spanish (Jiménez-Fernández & Miyagawa 2013)

Category IV: $C_{\phi/\delta}, T$ – Dinka (based on van Urk 2015)

Malayalam (based on Swenson and Marty 2014)

Chinese (based on Liu 2014).

Note about Spanish: focus is at C since it has wh-movement to Spec,CP.

Category II, III: $C_{\delta F}, T_{\phi/\delta T}$
Focus and wh-movement (Miyagawa 2010, etc.)


(12) Idukuni-ka kimi-ga fune fate kutsa mutsubi-kemu (1169)
which-ka you-NOM ship stop grass tie-PAST
‘Where did you anchor your ship?’ Man’yooshuu (8th C A.D.)

In the Tale of Genji, written in the 10th century A.D., 2/3 of the wh-question examples are wh-in-situ (Isobe 1990).

(13) Kono nisi-naru ie-ha nani-bito-no sumu-zo?
this west-be house-TOP what-person-NOM live-Q
‘What person lives in this house to the west?’

Half of the wh-in-situ examples have ka at the end.

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‘Why’ and focus

Rizzi (1991): focus is relevant to wh-phrases except ‘why’.

(14) perché is not associated with focus (Rizzi 1999)
   a. *A chi QUESTO hanno detto (non qualcos’altro)? (Rizzi 1999:4)
      ‘To who THIS they said (not something else)?’
   b. Perché QUESTO avremmo dovuto dirgli, non qualcos’altro? (Rizzi 1999:7)
      ‘Why THIS we should have said to him, not something else?’

Evidence that EM ‘why’ is associated with focus. In European Portuguese, an argument wh-phrase that has been moved to Spec,CP cannot carry focus stress.

(15) a. O que leste?
   what (you) read
   ‘What did you read?’
   b. *O quê leste?
Moved and EM ‘why’ in EP

For 'why', both the unstressed and stressed versions are possible.

(16) a. Porque veio o João? (inversion – movement)
   why came João
   'Why did João come?'

b. PORQUÊ o João veio? (no inversion – EM)
   why João came
   'Why did João come?'

Scope difference:

(17) Porque é que disseste que o João veio para Boston?
    why say that João came to Boston?
   'Why (unstressed) did you say that João came to Boston?'

Ambiguous:

a. Porque tu querias saber.
   Because you wanted to know.

b. Porque foi estudar para o MIT.
   Because he went to study at MIT.
Moved and EM ‘why’ in EP

(18) PORQUÊ disseste que o João veio para Boston?

why said that João came to Boston

'Why (stressed) did you say that João came to Boston?'

Unambiguous:

a. Porque tu querias saber.

Because you wanted to know.

b. #Porque foi estudar para o MIT.

Because he went to study at MIT.
Category I: no Foc at C

Wh-construction is often associated with Focus (e.g., Rizzi 1997)

Evidence from Old Japanese that it is focus that overtly attracts a \textit{wh}-phrase to Spec,CP (Miyagawa 2010).

Although ‘why’ is argued not to be associated with focus (Rizzi 1997), based on European Portuguese, EM ‘why’ requires focus.

Hence, if there is no FOCUS at C, there is no overt merging of phrasal \textit{wh}-phrase at Spec,CP, EM or otherwise. \textbf{Thus, the EM option does not exist for Category I languages like Japanese.}
Spanish: both Category II and III

Jiménez-Fernández (2010) argues that in Spanish, the $\delta$-feature is inherited by T. This makes Spanish into a Category III language.

(19) Category III: $C, T_{\phi/\delta}$ — Spanish (Jiménez-Fernández & Miyagawa 2013)

However, Jiménez-Fernández’s argument is based on TOPICALIZATION/CLLD. Since Spanish has overt wh-movement, FOCUS stays at C, making Spanish both Category II and III.

(20) $C_{FOC}, T_{\phi/TOPIC}$

We predict that Spanish has the EM option as we saw.
Why moves (Shlonsky and Soare 2011)

Many speakers do not allow why in an infinitival question (the following are taken from S&S 2011).

(21) I asked Bill  
   a. whether to serve spiced aubergines for dinner.  
   b. who to serve.  
   c. what to serve the guests.  
   d. when to serve spiced aubergines.  
   e. how to serve spiced aubergines.  
   f. where to serve spiced aubergines.  
   g. ??why to serve spiced aubergines.

The difference disappears in tensed clause:

(22) I asked Bill [why I should serve spiced aubergines].
ReasonP (Shlonsky and Soare 2011)

*Why* is externally merged into IntP (Rizzi 1997).

Rizzi’s (1997, 2001) clausal structure, truncated for infinitives (S&S 2011)

(23) ForceP > IntP > TopP > FocP > WhP > Fin(ite)P

WhP (and FocP) can host a non-*why* wh-phrase.

Problem: there is evidence that *why* can be externally merged in an infinitival clause although it can’t stay there (S&S).

(24) Why did you ask her to resign?

(a) What is the reason X, such that for X, you asked her to resign?
   e.g., Because I didn’t want to just tell her. (short construal)

(b) What is the reason X, such that you asked her to resign for that particular reason X?
   e.g., I asked her to resign because of her health, not because of her intelligence... (long construal)
ReasonP (Shlonsky and Soare 2011)

(25) For the long construal in (16)

\[ [\text{CP} \ldots [\text{ForceP} \rightarrow \text{IntP} \rightarrow \text{TopP} \rightarrow \text{FocP} \rightarrow \text{WhP} \rightarrow \ldots \text{ReasonP} \ldots] \]

ReasonP is above NegP (e.g., Rizzi 1990, Ko 2005).

(26) a. Why didn’t Geraldine fix her bike?
    b. *How didn’t Geraldine fix her bike?

(27) a. why \( t_{\text{why}} \) ... NegP
    b. *how \( t_{\text{how}} \) ... NegP

While negation does not block short construal of \textit{why}, the situation changes with long-distance construal, which is blocked by negation (Rizzi 1990).
The challenge to capturing the structure and meaning of 'why' lies in the fact that this wh-phrase, unlike other wh-phrases, stands for a clause, and not just a phrase, one that is adverbial in nature (Bromberger 1992, Rizzi 1990).

Beck (1995:132; also 1996): 'why' decomposes into because of what. This because clause is the adverbial clause that goes with the TP. To get the scope reading, Beck suggests that what in because of what is extracted at LF to give the structure, [because of t^{LF}], with the propositional interpretation of 'λqCAUSE_w(p,q)'.

(28) a. Why did Peter leave?  
        b. [what reason x, because of x] [Peter left]
Proposal for ReasonP

I propose that S&S’s ReasonP has the structure:

(29)

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ReasonP
   /
  /   
ReasonP  R [because of ___]
     /
    /
   what
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Which x.... x reason...because of x.

‘Why’ insertion: the abstract what is given phonological representation as ‘why’. This is the reason why is associated with an entire clause (ReasonP).
Intervention


(30) a. Was glaubt Hans, wen Karl gesehen hat?
   what believes Hans whom Karl seen has
   ‘Who does Hans believe that Karl saw?’

   b. *Was glaubt niemand, wen Karl gesehen hat?
   what believes nobody whom Karl seen has
   ‘Who does nobody believe that Karl saw?’

Intervention in Japanese (Takahashi 1990, etc.)

(31) *Taroo-sika nani-o yom-anakat-ta no?
   Taro-only what-ACC read-NEG-PAST Q
   ‘What did only Taro read?’

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Anti-intervention with ‘why’

Anti-intervention (Miyagawa 1997)

(32) Hanako-sika naze erab-are-nakat-ta no?
    Hanako-only why choose-PASS-NEG-PST Q
    ‘Why was only Hanako chosen?’

Ko (2005) provides cross-linguistic confirmation of the anti-intervention effect of 'why' from Korean.

    Anyone / John-only what-Acc read-CI-not-Past-Q
    ‘What did no one/only John read?’

    Anyone / John-only why that book-Acc read-CI-not-Past-Q
    ‘Why did no one/only John read that book?’
Anti-intervention is not evidence for EM

Ko (2005) proposes that anti-intervention is evidence for the EM analysis of ‘why’.

(34) $[_{CP} \text{‘why’} [_{TP} \ldots ]]$

Ko: anything to the left of ‘why’, including an intervenor, has scrambled there.

(35) INTERVENOR $[_{CP} \text{‘why’} [_{TP} \ldots ]]$
Anti-intervention is not evidence for EM

Problem: ‘why’ can occur very low in structure in anti-intervention environments. We can show this with VP preposing (Hoji, Miyagawa, Tada 1989, Yatsushiro 1997)

(36) ?_[vp Ano gakusei-o naze tyuuisi-sae] Hanako-sika si-nakat-ta no?
that student–ACC why warn-even Hanako-only do-NEG-PAST Q
Lit.: ‘Why did even warn that student, only Hanako did?’
(Thanks to Tomonori Otsuka for coming up with the example)

With other wh-phrase, intervention is triggered.

(37) *_[vp Dono gakusei-o tyuuisi-sae] Hanako-sika si-nakat-ta no?
which student-ACC warn-even Hanako-only do-NEG-PAST Q
Lit. ‘Even warn which student, did only Hanako do?’
Two-tier movement of ‘why’

(38)

\[
\begin{array}{c}
\text{CP} \\
\ \ \ \ C \\
\text{because of } x \\
\ 'why' \\
\text{ReasonP} \\
\text{TP} \\
\text{Move 2} \\
\text{Move 1} \\
\text{Take scope} \\
\text{Compose ReasonP}
\end{array}
\]
Two-tier movement and Strong Uniformity

Ko (2005): anti-intervention only occurs in languages that have scrambling. Chinese does not have it.

(39) *Zhiyou Zhangsan weishenme cizhi?  (Yang 2012)
   only Zhangsan why_{adv} resign
   ‘Why did only Zhangsan resign?’

Although I do not adopt Ko’s EM analysis, I adopt her insight here, restated as:

(40) Anti-intervention only occurs in languages in which the $\delta$-feature is inherited by $T$

(41) Class I languages: $C_\phi, T_\delta$ — Japanese, Korean
Focus potential

(40) John flew to Germany.

This sentence can be used to answer the following questions, each of which identifies a particular focus domain (Reinhart 1995/2006).

(42) a. What happened? TP
   b. What did John do? VP
   c. Where did John fly to? Goal
   d. How did John get to Germany? Verb

(43) a. What happened? John flew to Germany (neutral focus; nuclear stress).
   b. What did John do? He flew to Germany.
   c. Where did John fly to? He flew to Germany.
   d. How did John get to Germany? He flew to Germany.
Marking focus

(44) a. Why did John fly to Germany? (TP: no narrow focus)
    b. Why did John fly to Germany? (VP)
    c. Why did John fly to Germany? (Goal)
    d. Why did John fly to Germany? (Verb)

In addition, one can focalize the subject.

(45) Why did John fly to Germany? (Subject)
Marking focus in Japanese I

   why John-NOM Germany-to fly Q
   'Why did John fly to German?'

b. Naze John-ga Doitu-ni tonda no? (VP)
   why John-NOM Germany-to fly Q
   'Why did John fly to German?'

c. Naze John-ga Doitu-ni tonda no? (Goal)
   why John-NOM Germany-to fly Q
   'Why did John fly to German?'

d. Naze John-ga Doitu-ni tonda no? (Verb)
   why John-NOM Germany-to fly Q
   'Why did John fly to German?'

e. Naze John-ga Doitu-ni tonda no? (Subject)
   why John-NOM Germany-to fly Q
   'Why did John fly to German?'
Marking focus in Japanese II

(47) a. Naze John-ga Doitu-ni tonda no? (TP)
   why John-NOM Germany-to fly Q
   'Why did John fly to German?'

b. John-ga naze Doitu-ni tonda no? (VP)
   John-NOM why Germany-to fly Q
   'Why did John fly to German?'

c. John-ga naze Doitu-ni tonda no? (Goal)
   John-NOM why Germany-to fly Q
   'Why did John fly to German?'

d. John-ga Doitu-ni naze tonda no? (Verb)
   John-NOM Germany-to why fly Q
   'Why did John fly to German?'

e. Naze John-ga Doitu-ni tonda no? (Subject)
   why John-NOM Germany-to fly Q
   'Why did John fly to German?'
Predicting scope difference between Chinese and Japanese

Chinese: always for scope
Japanese: not for scope, but for composing ReasonP
Predicting scope difference between Chinese and Japanese

Chinese (Aoun and Li 1993)

(49) a. Meigeren dou weishenme da ta? (ambiguous: every > wh; wh > every)
   everyone all why hit him
   ‘Why did everyone hit him?’

b. Weishenme meigeren dou da ta? (unambiguous: *every > wh; wh > every)
   why everyone all hit him

Japanese

(50) a. Minna-ga naze Tanaka-sensei-o kirate iru no? (unamb. *every > wh; every > wh)
   everyone-NOM why Prof. Tanaka-ACC hate Q wh > every
   ‘Why does everyone hate Professor Tanaka?’

b. Naze minna-ga Tanaka-sensei-o kirate iru no? (unamb. *every > wh; every > wh)
   why everyone-NOM Prof. Tanaka-ACC hate Q wh > every

NOTE: some speakers get a mild ambiguity with (43a) if the sentence is understood to be spoken directly to the audience (“you all”). Starting the sentence with, “Nee, Taroo…” ‘Say, Taro, …” prevents this interpretation and ambiguity does not obtain.
Anti-superiority

Anti-superiority (Saito 1982, 1985): $\sqrt{wh \ naze, \ ??naze \ wh}$

(52) a. Taroo-wa nani-o naze katta no?
   Taro-Top what-Acc why bought Q
   ‘Why did Taro buy what?’

   b. ??Taroo-wa naze nani-o katta no?
   Taro-Top why what-Acc bought Q

(53) Additional $wh$ effect (Saito 1994; see also A. Watanabe 1992, S. Watanabe 1994)

Dare-ga naze nani-o katta no?
who-Nom why what-Acc bought Q
‘Why did who buy what?’

Anti-superiority: a universal phenomenon due to the structure of ‘why’.

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Anti-superiority in other languages

Rumanian (Rudin 1988, Soare 2009, Shlonsky and Soare 2011)

(54) a. Cine de ce a plecat?
   who why has left
   ‘Who left and why?’

   b. *De ce cine a plecat?

Chinese (Huang 1982:526; see also Takita and Yang 2014):

(55) Ni xiang-zhidao [ Lisi weisheme mai-le shenme]?
   you want-know Lisi why buy-le what

   (i) ‘(lit.) What do you wonder [Lisi bought t why]?’

   (ii) *(lit.) Why do you wonder [Lisi bought what t]?

English:

(56) Why did you buy what?
Pair-list interpretation and D-linking

General property of PL questions is that the left-most wh-phrase must be D-linked (Comorovski 1996, Hornstein 1994).

This is shown in a couple of examples from Bolinger (1978).

(57) a. It's nice to have all those times scheduled, but when are you doing what?
   (#But what are you doing when?)
   b. It's nice to have all those activities ahead of you, but what are you doing when?
   (#But when are you doing what?)

(58) Why did you buy what?
   Which x, x a thing [from the set understood in discourse]: anchor
   Reason ranges over this set, and typically not the other way around.
How many

(59) How many people do you think I should talk to?

   (i) For what n: there are n-many people x, such that you think I should talk to x?
       (outer reading)

   (ii) For what n: you think it should be the case that there be n-many people
        that I talk to?
        (inner reading)

The outer reading presupposes the existence of certain people (Lahiri 2002; cf.

Inner reading: cardinal number – 100.
Islands block inner reading: English, German

(60) a. How many people do you wonder whether I should talk to? (wh-island)
   (i) For what n: there are n-many people x, such that you wonder whether I should talk to x.
   (ii) *For what n: you wonder whether it should be the case that there be n-many people that I talk to?

b. Wieviele Hunde hat Karl nicht gefüttert? (negative island)
   how many dogs has Karl not fed
   (i) For which n: there are n dogs that Karl didn’t feed.
   (ii) *For which n: it is not the case that Karl fed n dogs.
Outer and inner readings: Chinese (Yang, Hsu, Kikushima 2015)

(61) Q: Ni mai -le ji-ben-shu ne?
   you bought-Perf. several-Cl-book Q
   ‘How many books have you bought?’
   a. A: San ben.
      three Cl
      ‘Three (books).
   b. A: #The Lord of the Rings, Harry Potter and the Deathly Hallows, …

(62) Q: Ni mai -le na-ji-ben-shu?
   you meet-Perf. which-several-Cl-person
   ‘For what n: there are n-many books x such that you have bought x?’
   a. A: #San ben.
      three Cl
      ‘Three (books).
   b. A: The Lord of the Rings, Harry Potter and the Deathly Hallows, …
Islands block inner reading: Chinese

(63) a. *Ni xiang-zhidao [ Lisi weishenme mai-le ji-ben-shu] ne?
you want-know Lisi why buy-Perf. several-Cl-book Q
   ‘For what n you wonder [Lisi bought n-many books why]?’
   b. Ni xiang-zhidao [ Lisi weishenme mai-le na-ji-ben-shu]?
you want-know Lisi why buy-Perf. which-several-Cl-book
   ‘For what n: there are n-many books x such that you wonder [Lisi bought x why]?’

(64) a. *Ni xiang-zhidao [(you) ji-ge-ren weishenme cizhi] ne?
you want-know have several-Cl-person why resign Q
   ‘For what n: you wonder why there are n-many people resigned?’
   b. Ni xiang-zhidao [na-ji-ge-ren weishenme cizhi] ne?
you want-know which-several-Cl-person why resign Q
   ‘For what n: there are n-many people x such that you wonder why x resigned?’
Outer and inner readings and the restriction

(65) (i) For what n: there are n-many people x, such that you think I should talk to x? (outer reading)

(ii) For what n: you think it should be the case that there be n-many people that I talk to? (inner reading)

Outer reading: the restriction (n-many people) is interpreted HIGH, next to the operator (for what n). \( \rightarrow \) D-linking

Inner reading: the restriction (n-many people) is interpreted LOW, away from the operator (for what n).

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**Anti-superiority: failure of PL (S. Watanabe 1994)**

(66) a. Taroo-wa nani-o naze katta no?
    Taro-Top what-Acc why bought Q
    ‘Why did Taro buy what?’

b. ??Taroo-wa naze nani-o katta no?
    Taro-Top why what-Acc bought Q

(67) Additional *wh* effect (Saito 1994; see also A. Watanabe 1992, S. Watanabe 1994)

Dare-ga naze nani-o katta no?
who-Nom why what-Acc bought Q

‘Why did who buy what?’
Predicted by the structure of ‘why’

(68)

Which x... x reason...because of x.

The restriction [x reason] is always interpreted LOW.
Selected references


