The Structure of *Why*

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Shigeru Miyagawa
MIT/UTokyo
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Where is *why*?

Two ideas on the syntax of *why*:

- <u>EM</u>: Externally merged at C/CP (Rizzi 1990, 2001; Ko 2004, 2005; Stephanov and Tsai 2008, etc.)
- <u>Movement</u>: Merged lower than CP and moved to Spec,CP (FocP, IntP…) (e.g., Shlonsky and Soare 2011)

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 *why*.

Por qué 'why' in Spanish

Showing both options (cf. Ochi 2014)

(1) a.   Por qué miró   Juan   a Maria?

           why   looked at   Juan   A Maria

           'Why did Juan look at Maria?

  b.   Por qué Juan   miró   a Maria?

           why   Juan   looedk at   A Maria

           'Why did Juan look at Maria?'

(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*   pensate tú   que Juan vio   a   Maria?   (ambiguous)

         why   thought you that Juan saw A Maria

         'Why did you think that Juan saw Maria?'

     b. *Por qué* tú   pensate   que Juan vio a Maria?   (unambiguous)

         why   you   thought   that Juan saw A Maria

         '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 <u>zenme</u> 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 <u>weishenme</u> 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?
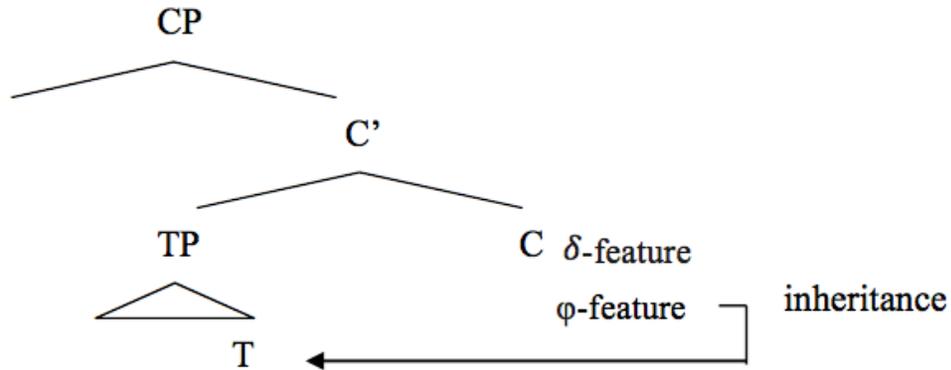
Strong Uniformity

(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.
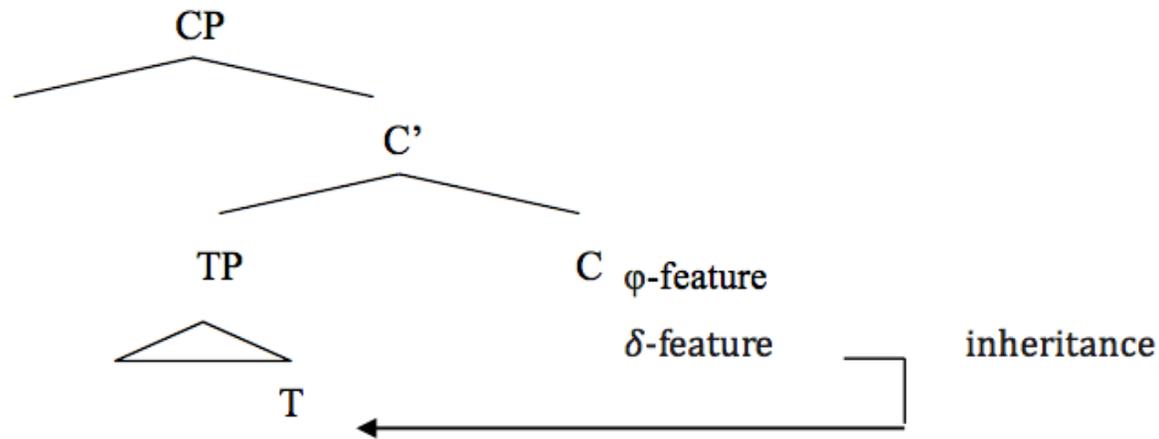
(8) Grammatical features: ϕ-feature, discourse (δ) configurational feature (cf. Kiss 1995)

Agreement-based and discourse configurational languages

(9) Agreement-based language


```
        CP
       /  \
           C'
          /  \
        TP      C  δ-feature
       /\          φ-feature ⌐ inheritance
      /__\              ↑_____|
        T
```

(10) Discourse configurational language


```
        CP
       /  \
           C'
          /  \
        TP      C  φ-feature
       /\          δ-feature ___ inheritance
      /__\              ↑_____|
        T
```

Predictions

(11) Some predicted languages

Category I: C_ϕ, T_δ – Japanese, Korean

Category II: C_δ, T_ϕ –   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.)

Old Japanese (Nomura 1993, Watanabe 2003)

(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 whi-in-situ examples have *ka* at the end.

'Why' and focus

Rizzi (1991): focus is relevant to wh-phrases *except* 'why'.

(14) *perché* is not associated with focus (Rizzi 1999)

    a. *<u>A chi</u> QUESTO hanno detto (non qualcos'altro)?   (Rizzi 1999:4)

       'To who THIS they said (not something else)?'

    b. <u>Perché</u> 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 *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 *wh*-phrase at Spec,CP, EM or otherwise. 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 δ-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 aubegines.
    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?
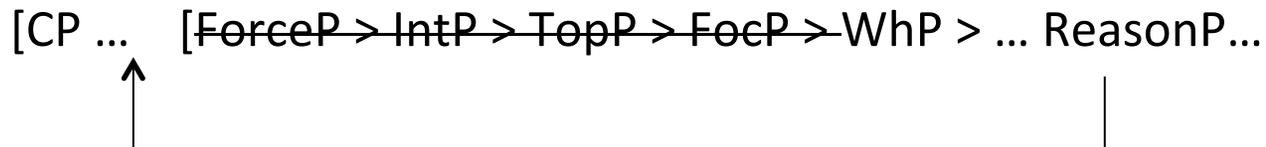
        e.g., Because I didn't want to just tell her. (short construal)

    (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)

[CP … [~~ForceP > IntP > TopP > FocP >~~ WhP > … ReasonP…

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_{why} … NegP

    b.   *how … NegP … t_{how}

While negation does not block short construal of *why*, the situation changes with long-distance construal, which is blocked by negation (Rizzi 1990).

Content of ReasonP

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 '$\lambda qCAUSE_w(p,q)$'.

(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)

ReasonP
- *what*
- ReasonP
  - R
  - [*because of* ___]
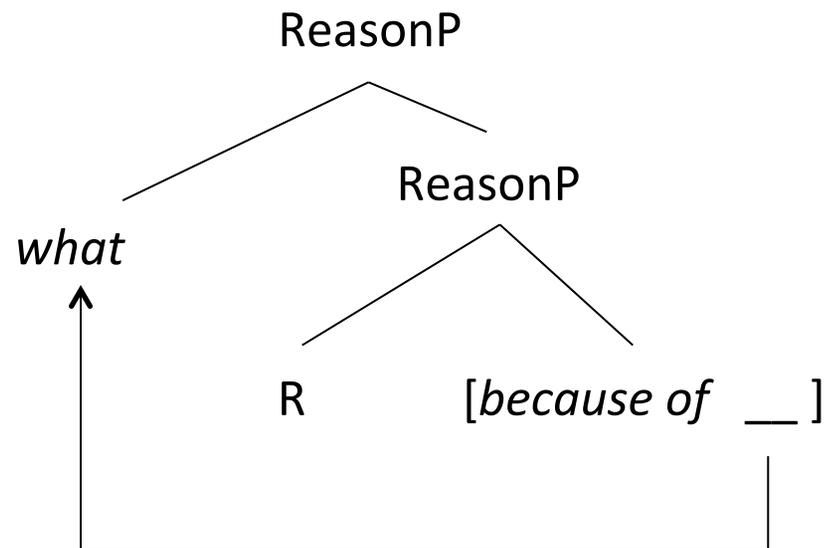
Which x…. x reason…because of x.

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

Intervention

Intervention (Rizzi 1992; Beck 1996; Pesetsky 2000; Ko 2004, 2005; Miyagawa 1997, 2010, etc.)

Rizzi 1992, Beck 1996; based on McDaniel 1989

(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?'

Anti-ntervention with 'why'

Anti-intervention (Miyagawa 1997)

(32) Hanako-sika   <u>naze</u>   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.

(33)a. *<u>Amwuto/*John-pakkey</u> mwues-ul ilk-ci-anh-ass-ni? (Beck and Kim 1997)

     Anyone / John-only   what-Acc read-CI-not-Past-Q

     'What did no one/only John read?'

  b. <u>Amwuto/?John-pakkey</u> way   ku chayk-ul   ilk-ci-anh-ass-ni? (Ko 2005)

     Anyone / John-only   why that book-Acc read-CI-not-Past-Q

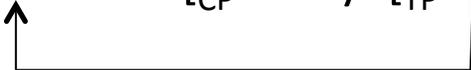   'Why did no one/only John read that book?'

Anti-intervention is not evidence for EM

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

(34)   [$_{CP}$ 'why' [$_{TP}$ ...   ]]

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

(35)   INTERVENOR   [$_{CP}$ 'why' [$_{TP}$ ...   ]]

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-phrases, 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)
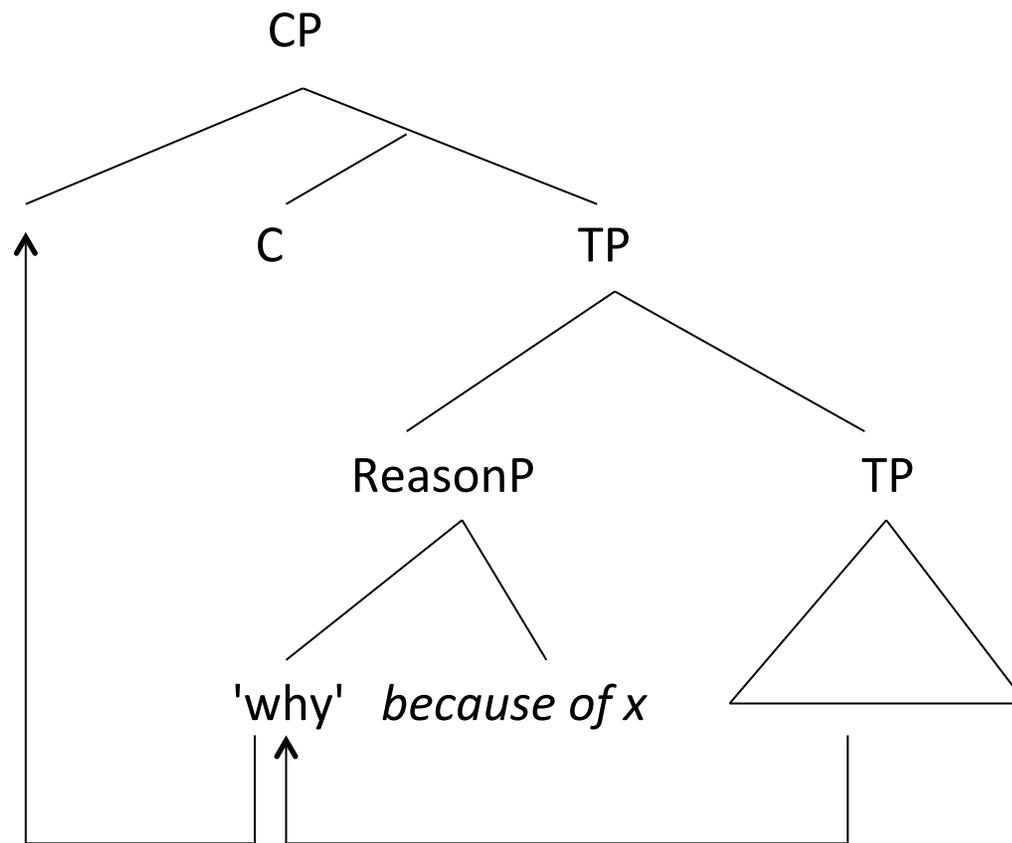
Move 2

Take scope

Move 1

Compose ReasonP

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 δ-feature is inherited by T

(41) Class I languages: $C_{\phi,}$ T_{δ} – 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 <u>flew to Germany</u>.

    c.   Where did John fly to? He flew to <u>Germany</u>.

    d. How did John get to Germany? He <u>flew</u> to Germany.

Marking focus

(44) a.　　Why did John fly to Germany? (TP: no narrow focus)

   b.　　Why did John <u>fly to Germany</u>? (VP)

   c.　　Why did John fly to <u>Germany</u>? (Goal)

   d.　　Why did John <u>fly</u> to Germany? (Verb)

In addition, one can focalize the subject.

(45) Why did <u>John</u> fly to Germany? (Subject)

Marking focus in Japanese I

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

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

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

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

   e. Naze <u>John</u>-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 <u>Doitu</u>-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 <u>John</u>-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

(48)   SUBJECT   WHY
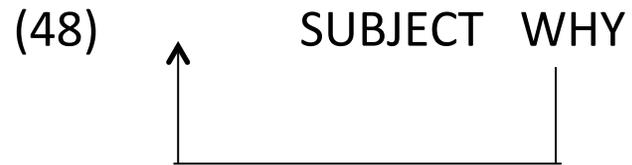
Chinese: always for scope

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 kiratte iru no? (unamb. **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 kiratte iru no? (unamb. **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): √*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'.

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 <u>typically not the other way around.</u>

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. Cresti 1995): answer – John, Mary, and Henry.

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)   <u>For what n: there are n-many people x</u>, such that you wonder whether I should talk to x.

  (ii) *<u>For what n</u>: you wonder whether it should be the case that there be <u>n-many peopl</u>e 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). → D-linking

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

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

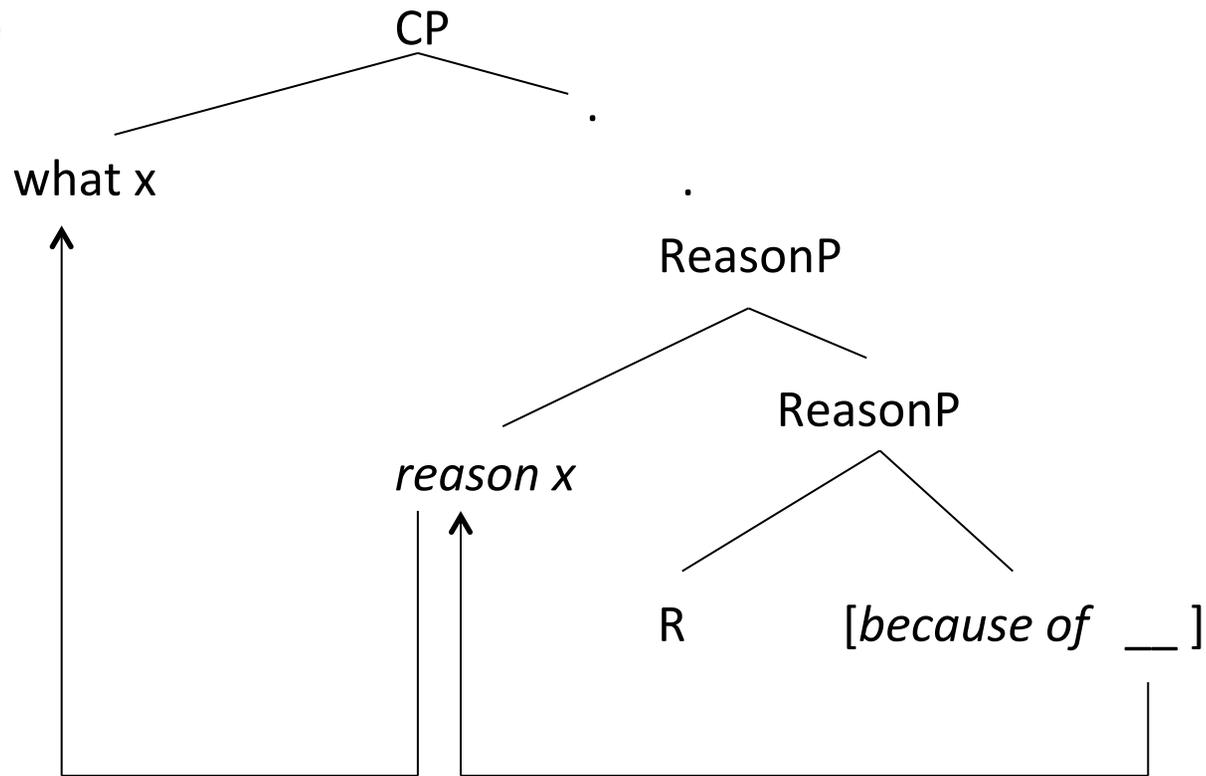(67) Additional *wh* effect (Saito 1994; see also A. Watanabe 1992, S. Watanabe 1994)

     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)

CP
├── what x
└── .
    └── .
        └── ReasonP
            ├── reason x
            └── ReasonP
                ├── R
                └── [because of ___]

Which x…. x reason…because of x.

The restriction [x reason] is always interpreted LOW.

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