

"Weishenme" ("why") as an In-Situ Focus Particle

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Contrastive Statements [Dretske 1972]

*"Hence, I can know why **Clyde went to the store** (to buy some beer) without knowing why **Clyde** went to the store (why didn't he send one of the children as he usually does when he is watching television?)"*

- Why did Clyde **go to the store**?
- Why did **Clyde** go to the store?

- Zhangsan weishenme **da le Lisi**? (but not just slap Lao Wang?)
- Zhangsan weishenme da le **Lisi**? (but not Lao Wang?)



Preliminary findings

- Therefore the question words "weishenme" and "why" can associate with different focused elements.
- Since the answers are different, the denotations of the questions themselves are different as well.
- Let's only discuss causal "weishenme" questions for now.



Denotation of causal questions with no foci [Tsai 1999]

The semantics presupposes that there is a causal connection between an event e_1 and a resultant event e_2 . The inquiry is about what the causing event e_1 is.

For example, the following semantics is modelled on [Tsai 1999].

- Zhangsan weishenme da le Lisi?
- $\lambda P. \exists s. (P(w) \wedge P=\text{CAUSE}(s, t) \wedge t=\lambda w. \text{Zhangsan da le Lisi in } w)$



Focus Semantics [Rooth 1992]

A sentence containing a primary focus has both an ordinary semantics and a focus semantics. The focus semantics is a set of propositional alternatives.

For example:

John likes **Mary_F**

- Ordinary semantics: $\lambda w. \text{like}(j)(m)(w)$
- Focus semantics: $\{ \lambda w. \text{like}(j)(x)(w) \mid x \in D_e \}$



Combining [Tsai 1999] and [Rooth 1992]

- Zhangsan weishenme da le **Lisi**_F?

The focused causal question is not asking a set of questions, i.e. it is not asking the following set of questions: { Zhangsan weishenme da le Lisi; Zhangsan weishenme mei da Lao Wang; ...}

Instead, it is asking a contrastive question, i.e. asking what is the event that caused the event of Zhangsan hitting Lisi but not the possible events of Zhangsan hitting other people, say, Lao Wang.



Combining [Tsai 1999] and [Rooth 1992]

Thus by combining the semantics of causal questions by [Tsai 1999] and the focus semantics by [Rooth 1992]:

- A focused causal question gives rise to propositional alternatives $\{ \lambda w. \text{hit}(z)(x)(w) \mid x \in D_e \}$
- The denotation of a focused causal question is thus:
 $\lambda P. \exists s. [P(w) \wedge P=\text{CAUSE}(s, t) \wedge [\forall t. [\mathbf{t} \in \{ \lambda w. \mathbf{hit}(z)(x)(w) \mid x \in D_e \} \wedge \mathbf{t}(w)]] \rightarrow [\mathbf{t}=\lambda w. \mathbf{Zhangsan da le Lisi in w}]]]$

Note that the part in bold font of the formula above is the new denotation.



Position of "weishenme" and Focus Association

The position of "weishenme" can vary. Previous research has not paid much attention to how the different positions of "weishenme" is relevant to its focus sensitivity.

- Zhangsan weishenme [**da**]_F le Lisi?
- Zhangsan weishenme da le [**Lisi**]_F
- Weishenme [**Zhangsan**]_F da le Lisi?
- Weishenme [**Lisi**]_F, Zhangsan da le, [er Lao Wang Zhangsan que mei da?]
- ? Weishenme Zhangsan da le [**Lisi**]_F



Preliminary findings

The positions of "weishenme" correspond to different positions of focus:

- If "weishenme" is preverbal, then it is associated with any foci to its right.
- If "weishenme" is sentential, then it is associated with foci left of the matrix verb.

Theoretical Questions

Primarily we want to figure out:

- What are the adjunction sites of "weishenme"?
- How do the adjunction sites determine where the focus is?

Moreover we want to ask:

- Is there movement, either overt or covert?

Focus Particles [Büring and Hartmann 2001]

Compare English "only" and German "nur" ("only")

English "only" can be either adverbial or adnominal:

- I only read [a NOVEL]_F
- I read only [a NOVEL]_F

German "nur" is debatable:

- Ich habe [_{VP} nur [_{DP} einen Roman] gelesen]]

[Büring and Hartmann 2001] argue that although "nur" can be right before a DP linearly, structurally it is still adverbial.



The Particle Theory [Büring and Hartmann 2001]

1. For any node α marked F in a phrase marker P, let the set of f-nodes of α consist of all nodes β such that:

- (1) β is an EP (extended projection) of some V γ
- (2) β is a maximal projection
- (3) β dominates α or is identical to α
- (4) there is no EP β' of γ such that β dominates β' and β' meets (2) and (3)

2. A FP must be left-adjoined to an f-node of its focus.

What does the FP theory mean?

According to [Büring and Hartmann 2001], "Informally, the Particle Theory says four things about the positioning of FP:

- FPs must be adjoined to an extended verbal projection.
- FPs must be ajoined to a maximal projection.
- FPs must c-command the focus
- FPs are as close to the focus as possible

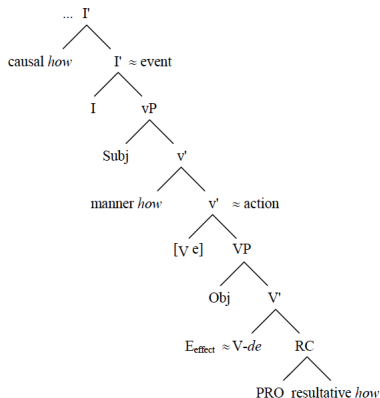
We can see that this theory at least captures the "c-commanding" and "closeness" requirements as to the association of "weishenme" with the focus.

But what is the adjunction site, VP, vP, IP, CP?



Three Positions of "how" [Tsai 1999]

[Tsai 1999] argues convincingly about the positions of the three interpretations of "how" ("zenme" and "zenmeyang").



Positions of "weishenme"

- Thus according to [Tsai 1999], the causal wh-adverb position is adjoining to I'. He also suggests that the position of "weishenme" in the causal use should also be adjoining to I'.
- Compared to German FP according to [Büring and Hartmann 2001], the adjunction in Chinese cannot be VP, vP.
- Compared to English, the adjunction in Chinese cannot be DP either, since "weishenme" cannot be attached to an object DP.



Focus Particle Theory Revised

Thus by combining theory of [Büring and Hartmann 2001] and findings by [Tsai 1999], we can propose the following theory for Chinese:

1. For any node α marked F in a phrase marker P, let the set of f-nodes of α consist of all nodes β such that:

- (1) β is an EP (extended projection) of some V γ
- (2) β is a maximal projection
- (3) β dominates α or is identical to α
- (4) there is no EP β' of γ such that β dominates β' and β' meets (2) and (3)

2. A FP must be left-adjoined to **the X' of an f-node** of its focus.



Note

Note that we simply modified the adjunction from to maximal projections to the X' level. Moreover, the causal node position should probably also include a higher position in the left periphery.

We could allow causal FPs to be adjoined to VP but rule it out by referring to the computational derivation as described in [Tsai 1999], i.e. a causal interpretation is not possible.

Also the subject position is spec,vP in Chinese as also shown by [Tsai 1999]. It seems that the subject has to further move to spec,IP, although in many cases, it can stay at spec,vP.



Reconstruction possibilities?

It seems possible to have the following configuration:

- **[Zhangsan]_F** weishenme da le Lisi?

A possible solution: reconstruction

- [_{CP} Zhangsan [_{CP} weishenme [_{IP} t da le Lisi]]]

No overt movement

In our revised theory, the wh-adverb Focus Particles are adjoined to the X' level of IPs and CPs, and therefore there is no overt movement involved.



No covert movement either

Scope ambiguity of "zenme":

Meigeren dou zenme tiao-de-wu?





- For each person, how did he/she dance?
- What is the way that everyone danced?

The lack of scope ambiguity of "weishenme":

Meigeren dou weishenme tiaowu?

- For each person, why did he/she dance?
- *What is the reason that everyone danced?

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