

## Mandarin Additive Particles *yě* vs. *hái*

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This paper focuses on two of the additive particles in Mandarin Chinese: specifically, 也 *yě* and 还 *hái* (Hu 胡建华 & Pan 潘海华 2008, Lee 李寶倫 & Sun 孫月明 2024). At first glance, both seem to involve a simple addition to the description of an event or events, e.g., describing what Xiaoming brought in (1)<sup>1</sup>.

- (1) 小明带了甜点，他 {也/还} 带了饮料。  
*Xiǎomíng dài-le tiándiǎn, tā { yě / hái } dài-le yǐnliào.*  
Xiaoming bring-PFV dessert 3SG YE / HAI bring-PFV drinks  
'Xiaoming brought dessert, and he **also** brought drinks.'

However, upon closer examination, two key differences between the two emerge: (i) whether an implicit ordering of the events is assumed, and (ii) their behavior in comparative constructions.

**Temporal ordering** Broadly speaking, both particles require an antecedent event for them to be felicitous. However, *yě* only needs the antecedent event to be of the same type as the one described in its prejacent, whereas for *hái* to be felicitous, the antecedent event must be in the relative past. This contrast is illustrated in the minimal pair provided in (2).

- (2) a. 她今天要训练，她明天 {也/还} 要训练。  
*tā jīntiān yào xùnlìan, tā míngtiān { yě / hái } yào xùnlìan.*  
she today need train she tomorrow YE / HAI need train  
'She has to train today, she also needs to train tomorrow.'
- b. 她明天要训练，她今天 {也/#还} 要训练。  
*tā míngtiān yào xùnlìan, tā jīntiān { yě / #hái } yào xùnlìan.*  
she tomorrow need train she today YE / #HAI need train  
'She has to train tomorrow, she also needs to train today.'

**Evaluativity in comparatives** Simple Mandarin *bǐ*- (3) 旺财比花花活泼。  
*Wàngcái bǐ huāhua huópō.*  
Wangcai than Huahua playful  
'Wangcai is more playful than Huahua.'

comparatives do not trigger an evaluative inference. Even in a context where both Wangcai and Huahua nap all day, *Next* is felicitous as long as Wangcai is at least slightly more playful than Huahua. Note that the standard of comparison is introduced by *bǐ* in this construction.

Adding *yě* or *hái* to a comparative construction creates additional inferences. On the one hand, if *yě* or *hái* is inserted **before** the *bǐ*-phrase, we get the classic additive inference – that a closely related proposition is true. In the framework of Roothian Alternative Semantics, the three inferences in (4) are the consequences of placing focus on the standard *Huahua*, the predicate *huópō* 'being playful', and the target *Wangcai*, respectively. Importantly, although (5) and (4) are very similar in meaning, the third reading, i.e., *another cat is more playful than Huahua*, is not available in (5).

- (4) 旺财**也**比花花活泼。  
*Wàngcái yě bǐ huāhua huópō.*  
Wangcai YE than Huahua playful  
'Wangcai is **also** more playful than Huahua.'
- ✓↔ W.C. is more playful than another cat  
✓↔ W.C. has more of another quality than H.H.  
✓↔ Another cat is more playful than H.H.
- (5) 旺财**还**比花花活泼。  
*Wàngcái hái bǐ huāhua huópō.*  
Wangcai HAI than Huahua playful  
'Wangcai is **also** more playful than Huahua.'
- ✓↔ W.C. is more playful than another cat  
✓↔ W.C. has more of another quality than H.H.  
✗↔ Another cat is more playful than H.H.

<sup>1</sup>Judgments reported here are from native Mandarin speakers who grew up in the eastern coastal area of mainland China.

On the other hand, only *hái* can be inserted **after** the *bǐ*-phrase and invariably gives rise to an evaluative reading. In this case, *hái* functions similarly to English *still*, leading the listener to conclude that both Wangcai and Huahua surpass the threshold of being considered playful.

(6) 旺财比花花 {还 / \*也} 活泼。

Wàngcái bǐ huāhua { hái / \*yě } huópō.

Wangcai than Huahua HAI / \*YE playful

‘Wangcai is more playful **still** than Huahua.’

↔ Both are quite playful

**Analysis** We argue that *yě* is a focus-sensitive operator, where a change in focus placement systematically leads to different interpretations. It passes on the at-issue meaning of its prejacent *p* but adds the presupposition that there exists a true alternative to *p*. We can place focus on any eligible constituents within *yě*’s c-commanding domain, which, following the VP-internal subject hypothesis, includes the subject. This explains why *yě* can seemingly “back-associate” with the subject DP to its left string-wise.

(7)  $\llbracket yě \rrbracket = \lambda p : \exists q \in \text{ALT}(p) \wedge q.p$

In contrast, the interpretation of *hái* does not depend on focus placement. It is cross-categorical, whose meaning is determined by its syntactic position. Schematically, we adopt the denotation of the German particle *noch* (slightly modified) as proposed in Beck 2020.

(8)  $\llbracket hái \rrbracket^g = \lambda x_\tau^*. \lambda x_\tau. \lambda P_{\tau t} : x^* \prec_c x \wedge P(x^*). P(x)$ , where  $x^*$  is an anaphoric element with its value assigned by the assignment function, and  $\prec_c$  is a contextually provided scale.

Specifically, *hái* can be adjoined to different levels of phrases and involves a progression along a scale in a broad sense. In (1), *hái* continues a list of things that Xiaoming brought with him, and the scale in this case can be thought of as a scale of informativity. It’s likely that the question under discussion is ‘What did Xiaoming bring?’ and the prejacent of *hái* (‘he brought drinks’) adds more information to the partial answer provided by its antecedent (‘he brought dessert’). In (2), assuming the progression of time is only one-way, it follows that the antecedent event/stage needs to precede the one described by *hái*’s prejacent.

The analyses of (5) and (6) are less straightforward. They require us to spell out our specific assumptions about the syntax and semantics of Mandarin comparative and topic constructions. Here is a rough sketch: Let’s adopt a phrasal analysis of the comparative (Lin 林若望 2009) with degree abstraction (Gong & Coppock 2024), where *bǐ* forms a constituent, DegP, with the standard DP as shown in (9).

(9) Phrasal analysis of *bǐ*-comparatives:  $[_{TP} [_{\text{DegP}} bǐ \text{ Huahua}] [_{\lambda d} \text{ Wangcai} [_{AP} d\text{-playful} ]]]$

For the first reading of (5) (‘Wangcai is more playful than another cat’), *hái* modifies the standard DP *Huahua*, introducing a contextually salient alternative individual. For the second reading of (5) (‘Wangcai has more of another quality than Huahua’), *hái* modifies the entire complex property ‘being more playful than Huahua,’ introducing an alternative property for comparing the two individuals of interest. In comparison, *hái* modifies the covert degree variable *d* in (6). Assuming the contextual standard (for being playful in this case) is available for anaphoric reference when there isn’t a more salient alternative degree, we derive the desired evaluative inference.

**Conclusion** In this paper, we compared two Mandarin additive particles, *hái* and *yě*, which bear similarities with the German *noch* vs. *auch* contrast (Umbach 2012). We propose that their differences can be accounted for if we adopt a scale analysis of *hái*. This flexible semantics also leaves open the possibility of a uniform analysis across different readings of *hái*.

SELECTED REFERENCES: **Hu** 胡建华, J. and **Pan** 潘海华, H., 2007. *Focus and the basic function of Chinese existential you-sentences*. In *Existence: Semantics and syntax* (pp. 133-145). Dordrecht: Springer Netherlands. **Lee** 李寶倫, P.P.L. and **Sun** 孫月明, Y., 2024. *Focus in Chinese*. In *Oxford Research Encyclopedia of Linguistics*. **Umbach**, C., 2012. *Strategies of additivity: German additive noch compared to auch*. *Lingua*, 122(15), pp.1843-1863.