

Chinese Existential Polarity *Wh*-words as a Window on L2 Interpretation

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Researchers hold different views on whether L2 learners can acquire structures involving language-internal (syntax-semantics) and language-external (semantics-prosody) interfaces. We show that intermediate learners interpret Chinese *wh*-words as existential polarity items across licensors, with prosodic effects in L2, echoing those of the L1 group. Yuan (2010) questioned domain-wide approaches in which semantic interpretations either follow from L2 structures at the internal syntax-semantics interface (Dekydtspotter & Sprouse, 2001) or are challenged at external interfaces (Tsimpli & Sorace, 2006). Yuan (2010) reported L1-based variable-dependency in the existential vs. interrogative interpretation of Chinese *wh*-words, claiming that not all relevant licensors could be acquired by L1-English learners of Chinese in view of indeterminate performance by advanced learners (see Table 1) and arguing for a defining role for L1. Yuan presents this argument against Tsimpli and Sorace's (2006) claim for "relative easiness of L2 acquisition of syntax" (p. 253) and in support of Clahsen and Felsher's (2006) claim that learners' "syntactic representations are shallower" (p. 254).

Chinese *wh*-words, like *shenme* 'what', can be existentially interpreted as 'something' when c-commanded by licensors that make the truth-value of a proposition "not positively fixed in a definite manner" (Li, 1992, pp. 134). The semantics of *wh*-words as indefinites, therefore, reflect the nature of their licensors. When a *wh*-word resides in the scope of an existential licensor, it can be interrogative or existential. Prosody helps disambiguate: *Wh*-words as interrogative expressions tend to be stressed, whereas *wh*-words with existential interpretations are prosodically unmarked. Sentential prosodic organization interacts with sentence type, focus marking, and licensing conditions on Chinese *wh*-words for interrogative and existential uses (Hsu & Xu, 2019). Crucially, Yuan ignored the effect of prosody on the interpretation of *wh*-words in Chinese. We revisit Yuan's interface variable-dependency claim by examining the interpretation of *wh*-words as existential polarity items in L2-Chinese grammars of intermediate English-speaking learners across licensors as a function of prosody.

Using a 2x2 design manipulating the licensor availability (+/- licensor) and stress placement (stress on the *wh*-word or on the verb of the *wh*-word), we investigated the two interpretations of *wh*-word *shenme* across 4 licensors (see Table 1). In this ongoing study, we report listening-comprehension results including 8 items per condition with 10 subjects per group. In Task A, participants judged whether aural sentences fit a context that either required a *wh*-question or a declarative. In task B, participants selected the most natural form in response to an aural sentence. A Chinese C-test was administered for proficiency evaluation and the average score ($m = 54.2$ for L2; $m = 96.5$ for L1) showed a group difference.

A two-way ANOVA indicated that (i) the availability of the A-not-A structure affected the interpretation acceptance of *wh*-words with both groups aligned in the same direction; (ii) prosodic stress had a strong effect in determining interpretations across the LE, UA and FV conditions (see Table 2). This suggests that learners use prosodic cues in disambiguation, echoing the L1 Chinese group biases. It seems that the necessary licensing relationships have been established in their L2 grammar (see - licensor, PS on verb conditions in Figure 1). The task results showed that learners accepted Chinese *wh*-words as existential polarity items across licensors, with prosodic effects in L2, echoing those of the L1 group. Like the L1 group, learners accepted existential interpretation when the *wh*-word was c-commanded by an existential licensor and was not prosodically stressed. Independent group *t*-tests showed no significant groups difference.

Our patterns challenge Yuan's (2010) variable-dependency claim, showing sensitivity across syntax-semantics and semantics-prosody domains. These patterns contradict Clahsen and Felsher's (2006) claim that L2 learners' "syntactic representations are shallower". The

mapping between syn-sem elements across new licensers for the L2 appears fully acquirable with the learning of syntax-semantics interface building on domain-wide constraints.

Table 1. Licensers of existential interpretations, examples, and acquirability.

Licensers	Examples	Yuan (2010)'s claim
Inferential -le (LE)	Lǎoshī zài kè shàng jiěshì <i>shénme</i> le 'The teacher explained <i>something</i> in class.'	Not acquirable
A-not-A structure (AA)	Zhǎo xīn shìyǒu de shíhòu, nǐ kǎolǜ bù kǎolǜ <i>shénme</i> 'When looking for new roommates, do you consider <i>something</i> ?'	Not acquirable
Uncertain adverbs (UA)	Wèile kǎoshì, tóngxué kěnéng liànxíle <i>shénme</i> 'The classmates possibly practiced <i>something</i> for the tests.'	Acquirable
Non-factive verbs (FV)	Bàba xiāngxìn gēgē zài túshūguǎn fùxíle <i>shénme</i> 'Dad believes that Brother reviewed <i>something</i> at the library.'	Acquirable

Figure 1. Acceptance rate (%) in each condition per group.

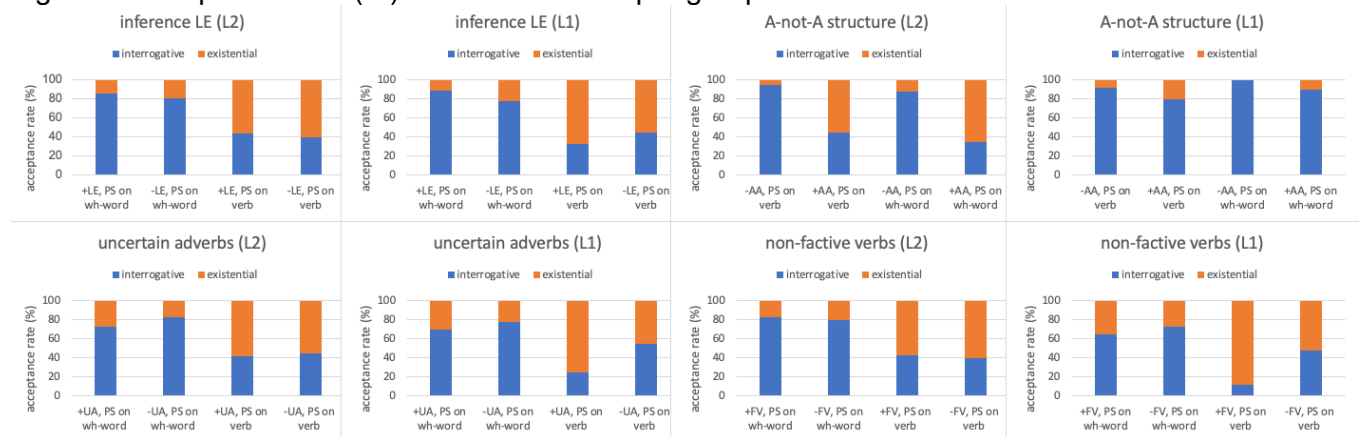


Table 2. Significance of ANOVA analysis

	L2 (n = 10)	L1 (n = 10)
Effect of Structure		
AA	$F(1,9) = 9.46, p = .013^*$, - A-not-A, $M = .92, SD = .023$ (stronger) + A-not-A, $M = .64, SD = .086$	$F(1,9) = 20.59, p < .001^*$, - A-not-A, $M = .93, SD = .017$ (stronger) + A-not-A, $M = .51, SD = .087$
Effect of Prosodic stress		
(LE)	$F(1,9) = 270, p < .001^*$, PS on the verb, $M = .533, SD = .009$ PS on <i>wh</i> -word, $M = .867, SD = .022$ (stronger)	$F(1,9) = 22.89, p < .001^*$ PS on the verb, $M = .494, SD = .044$ PS on <i>wh</i> -word, $M = .822, SD = .053$ (stronger)
(UA)	$F(1,9) = 8.74, p = .016^*$, PS on the verb, $M = .51, SD = .06$ PS on <i>wh</i> -word, $M = .78, SD = .07$ (stronger)	$F(1,9) = 5.53, p = .043^*$ PS on the verb, $M = .58, SD = .065$ PS on <i>wh</i> -word, $M = .77, SD = .069$ (stronger)
(FV)	$F(1,9) = 35.22, p < .001^*$ PS on the verb, $M = .81, SD = .073$ PS on <i>wh</i> -word, $M = .44, SD = .056$ (stronger)	$F(1,9) = 5.0, p = .052$ PS on the verb, $M = .75, SD = .09$ PS on <i>wh</i> -word, $M = .56, SD = .07$

Selected references

- Li, Y.-H. A. (1992). Indefinite Wh in Mandarin Chinese, *Journal of East Asian Linguistics*, 1, 125–155.
- Yuan, B. (2010). Domain-wide or variable-dependent vulnerability of the semantics-syntax interface in L2 acquisition? Evidence from *wh*-words used as existential polarity words in L2 Chinese grammars. *Second language research*, 26, 219-260.