

*

1 2 2
(¹, 200092) (², 201620)
() , “ — ” ;
“ , ,
” ,
(1) , (); (2) ; (3)
, , , , ,
B842

, (trigger), ;

, , ;
(Degen et al., 2020), , ;
(), “ ” ;
(presupposition)”, , ;

(common ground; Stalnaker, 2002) (“ ”) (“ ” ... ”) (“ ”) ;
(), (“ ”) (“ ”) (“ ”) ;
(linguistic co-presence,
) (visual co-presence, , “ ” “ the”
) ; (computational point, “ ”) ;
(world knowledge)/ (community membership, ,
) , , ;
(Clark & Marshall, 1981) , , , “ ” , “ ” ;
“ — — ” “ ” , “ ” , “ ” , “ ” ;
, , “ ” , “ ” , “ ” , “ ” ;
()¹,

(the) (again)

, , meaning) , ;
 (implicature) (“ ””)
 (conventional meaning) (what is said) ,
 (assertion) (default
 (, 2003; Domaneschi, 2016) , processing,
 ()) , ;
 ,

1.1

; (Domaneschi, 2016; , 2013) , (Tiemann et al., 2011)

() ,
 () ,
 , Tiemann et al., 2011,) ,
 (),
 (, 2014; Schwarz, 2014),
 (“ ”),
 (“ ”)
 (“ ”) (“ ”)
 (“ ”),
 (“ ”),
 ”², presupposition felicity processing),
 , (Jiang & Zhou, 2020;

,) ; (, , , Pickering & Garrod, 2007; Schneider et al., 2021)

1

(only) (" ... ") ,

2 _____ " vs. " _____
(infelicitous condition),
(false condition) 3 _____ ,
(Schneider et al., 2019)

4

Stillman et al. (2018)

, 1
3 ,

,

(Domaneschi & Di Paola, 2019)

, ,
(
),
(Domaneschi et al., 2014)
()

,

,

(Abusch, 2010;

Glanzberg, 2005) ,
, ;

,

(stop doing something “
”) , ,

,
(Domaneschi & Paola, 2018)

,
“N400-P600” ,
N400D`jpÆq m Ÿ

(Burkhardt, 2006), (Jiang et al., 2013)

$$(-3.2), , , ,$$

, (Domaneschi & Paola, 2018; Burkhardt, 2006) (Schwarz, 2014; Schneider et al., 2019), / (Jiang et al., 2013; Zang et al., 2019) **3.4**

(van Moort et al., 2020; van Moort et al., 2018, 2021), Jiang (2013) “(A)... (B)”

, A B , , () (),
(*“ ”) (“ ”) — (),
— “ ” (/)
N400 (350~450 ms) (, “
(550~800 ms) N400 , — — ”),
, “ ... ” , , “ ” (,
, “ ... ” ,),
(, , , (Keysar et al., 2000)
() () ,

(Zang et al., 2019), Burkhardt (2006),

, , Jiang (2013) ,

(Brown-Schmidt et al., 2008) ,

(Keysar et al., 2000)
(Brown-Schmidt & Heller, 2018;
, 2021)

/ , ,
;
;
, /

, ;
(4.1);
, ()

- , ., ., . (2007). , ., 15(01), 22–28.
- Abusch, D. (2010). Presupposition triggering from alternatives. *Journal of Semantics*, 27(1), 37–80.
- An, S., Bill, C., & Yang, Q. (2020). Comprehension of the presupposition trigger Ye “Also” by mandarin-speaking preschoolers with and without autism spectrum disorders. *Frontiers in Psychology*, 11, 570453.
- Brown-Schmidt, S., Gunlogson, C., & Tanenhaus, M. K. (2008). Addressees distinguish shared from private information when interpreting questions during interactive conversation. *Cognition*, 107(3), 1122–1134.
- Brown-Schmidt, S., & Heller, D. (2018). Perspective-taking during conversation. In S. Rueschemeyer & M. G. Gaskell (Eds.), *Oxford Handbook of Psycholinguistics* (2nd ed.) (pp. 551–574). Oxford University Press.
- Burkhardt, P. (2006). Inferential bridging relations reveal distinct neural mechanisms: Evidence from event-related brain potentials. *Brain and Language*, 98(2), 159–168.
- Cheung, C. C. H., Politzer-Ahles, S., Hwang, H., Chui, R. L. Y., Leung, M. T., & Tang, T. P. Y. (2017). Comprehension of presuppositions in school-age Cantonese-speaking children with and without autism spectrum disorders. *Clinical Linguistics & Phonetics*, 31(7-9), 557–572.
- Cheung, C. C. H., Rong, Y., Chen, F., Leung, M. T., & Tang, T. P. Y. (2020). Comprehension of presupposition triggers in Cantonese-speaking children with and without autism spectrum disorders. *Clinical Linguistics & Phonetics*, 34(4), 388–406.
- Clark, H. H., & Marshall, C.R. (1981). Definite reference and mutual knowledge. In A.H. Joshe, B. Webber, & I.A. Sag (Eds.), *Elements of discourse understanding* (pp. 10–63). Cambridge, England: Cambridge University Press.
- Clifton, C., Jr. (2013). Situational context affects definiteness preferences: Accommodation of presuppositions. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 39(2), 487–501.
- Coopmans, C. W., & Nieuwland, M. S. (2020). Dissociating activation and integration of discourse referents: Evidence from ERPs and oscillations. *Cortex*, 126, 83–106.
- Degen, J., Hawkins, R. D., Graf, C., Kreiss, E., & Goodman, N. D. (2020). When redundancy is useful: A Bayesian approach to “overinformative” referring expressions. *Psychological Review*, 127(4), 591–621.
- Dietrich, S., Hertrich, I., Seibold, V. C., & Rolke, B. (2019). Discourse management during speech perception: A functional magnetic resonance imaging (fMRI) study. *NeuroImage*, 202, 116047.
- Domaneschi, F. (2016). *Presuppositions and cognitive processes: Understanding the information taken for granted*. Berlin, Germany: Springer.
- Domaneschi, F., Canal, P., Masia, V., Vallauri, E. L., & Bambini, V. (2018). N400 and P600 modulation in presupposition accommodation: The effect of different trigger types. *Journal of Neurolinguistics*, 45, 13–35.
- Domaneschi, F., Carrea, E., Penco, C., & Greco, A. (2014). The cognitive load of presupposition triggers: Mandatory and optional repairs in presupposition failure. *Language, Cognition and Neuroscience*, 29(1), 136–146.
- Domaneschi, F., & Di Paola, S. (2018). The processing costs of presupposition accommodation. *Journal of Psycholinguistic Research*, 47(3), 483–503.
- Domaneschi, F., & Di Paola, S. (2019). The aging factor in presupposition processing. *Journal of Pragmatics*, 140, 70–87.
- Feng, W., Wu, Y., Jan, C. Yu, H., Jiang, X., & Zhou, X. (2017). Effects of contextual relevance on pragmatic inference during conversation: An fMRI study. *Brain and Language*, 171, 52–61.
- Feng, W., Yu, H., & Zhou, X. (2021). Understanding particularized and generalized conversational implicatures: Is theory-of-mind necessary? *Brain & Language*, 212, 104878.
- Franke, M., & Degen, J. (2016). Reasoning in reference games: Individual-vs. population-level probabilistic modeling. *PLoS One*, 11(5), e0154854.
- Frank, M. C., & Goodman, N. D. (2012). Predicting pragmatic reasoning in language games. *Science*, 336(6084), 998–998.
- Galati, A., & Brennan, S. E. (2021). What is retained about common ground? Distinct effects of linguistic and visual co-presence. *Cognition*, 215, 104809.
- Glanzberg, M. (2005). Presuppositions, truth values, and expressing propositions. In G. Preyer & G. Peters (Eds.), *Contextualism in philosophy: Knowledge, meaning, and truth* (pp. 349–396). Oxford University Press.
- Holler, J., & Levinson, S. C. (2019). Multimodal language processing in human communication. *Trends in Cognitive Sciences*, 23(8), 639–652.
- Jacoby, N., & Fedorenko, E. (2020). Discourse-level comprehension engages medial frontal Theory of Mind brain regions even for expository texts. *Language, Cognition and Neuroscience*, 35(6), 780–796.
- Jiang, X., Li, Y., & Zhou, X. (2013). Even a rich man can afford that expensive house: ERP responses to construction-based pragmatic constraints during sentence comprehension. *Neuropsychologia*, 51(10), 1857–1866.
- Jiang, X., Tan, Y., & Zhou, X. (2009). Processing the universal quantifier during sentence comprehension: ERP evidence. *Neuropsychologia*, 47(8-9), 1799–1815.
- Jiang, X., & Zhou, X. (2020). An alternative structure rescues

- failed semantics? Strong global expectancy reduces local-mismatch N400 in Chinese flexible structures. *Neuropsychologia*, 140, 107380.
- Jouravlev, O., Stearns, L., Bergen, L., Eddy, M., Gibson, E., & Fedorenko, E. (2016). Processing temporal presuppositions: An event-related potential study. *Language, Cognition and Neuroscience*, 31(10), 1245–1256.
- Keysar, B., Barr, D. J., Balin, J. A., & Brauner, J. S. (2000). Taking perspective in conversation: The role of mutual knowledge in comprehension. *Psychological Science*, 11(1), 32–38.
- Kirsten, M., Tiemann, S., Seibold, V. C., Hertrich, I., Beck, S., & Rolke, B. (2014). When the polar bear encounters many polar bears: Event-related potential context effects evoked by uniqueness failure. *Language, Cognition and Neuroscience*, 29(9), 1147–1162.
- Li, S., Jiang, X., Yu, H., & Zhou, X. (2014). Cognitive empathy modulates the processing of pragmatic constraints during sentence comprehension. *Social Cognitive and Affective Neuroscience*, 9(8), 1166–1174.
- Masia, V., Canal, P., Ricci, I., Vallauri, E. L., & Bambini, V. (2017). Presupposition of new information as a pragmatic garden path: Evidence from event-related brain potentials. *Journal of Neurolinguistics*, 42, 31–48.
- Mi, Q., Wang, C., Camerer, C. F., & Zhu, L. (2021). Reading between the lines: Listener's vmPFC simulates speaker cooperative choices in communication games. *Science Advances*, 7(10), eabe6276.
- Mitchell, D. C. (2004). On-line methods in language processing: Introduction and historical review. In M. Carreiras, & C. J. Clifton (Eds.), *The on-line study of sentence comprehension: Eyetracking, ERPs, and beyond* (pp. 15–32). Brighton, UK: Psychology Press.
- Murphy, G. L. (1984). Establishing and accessing referents in discourse. *Memory & Cognition*, 12(5), 489–497.
- Nieuwland, M. S., & Martin, A. E. (2017). Neural oscillations and a nascent corticohippocampal theory of reference. *Journal of Cognitive Neuroscience*, 29(5), 896–910.
- Pickering, M. J., & Garrod, S. (2007). Do people use language production to make predictions during comprehension? *Trends in Cognitive Sciences*, 11(3), 105–110.
- Rapp, A. M., Mutschler, D. E., & Erb, M. (2012). Where in the brain is nonliteral language? A coordinate-based meta-analysis of functional magnetic resonance imaging studies. *Neuroimage*, 63(1), 600–610.
- Reyes-Aguilar, A., Valles-Capetillo, E., & Giordano, M. (2018). A quantitative meta-analysis of neuroimaging studies of pragmatic language comprehension: In search of a universal neural substrate. *Neuroscience*, 395, 60–88.
- Schneider, C., Bade, N., Franke, M., & Janczyk, M. (2021). Presuppositions of determiners are immediately used to disambiguate utterance meaning: A mouse-tracking study on the German language. *Psychological Research*, 85, 1348–1366.
- Schneider, C., Bade, N., & Janczyk, M. (2020). Is immediate processing of presupposition triggers automatic or capacity-limited? A combination of the PRP approach with a self-paced reading task. *Journal of Psycholinguistic Research*, 49, 247–273.
- Schneider, C., & Janczyk, M. (2020). Capacity limitations of processing presuppositions triggered by determiners. *Acta Psychologica*, 211, 103159.
- Schneider, C., Schonard, C., Franke, M., Jäger, G., & Janczyk, M. (2019). Pragmatic processing: An investigation of the (anti-) presuppositions of determiners using mouse-tracking. *Cognition*, 193, 104024.
- Schwarz, F. (2014). Presuppositions are fast, whether hard or soft-evidence from the visual world. In Snider, T., D'Antonio, S., & Wiegand, M. (Eds.), *Semantics and linguistic theory* (Vol. 24, pp. 1–22). LSA and CLC Publications.
- Schwarz, F. (2016). Experimental work in presupposition and presupposition projection. *Annual Review of Linguistics*, 2, 273–292.
- Shetreet, E., Alexander, E. J., Romoli, J., Chierchia, G., & Kuperberg, G. (2019). What we know about knowing: Presuppositions generated by factive verbs influence downstream neural processing. *Cognition*, 184, 96–106.
- Sperber, D., & Wilson, D. (1986). *Relevance: Communication and cognition* (Vol. 142). Massachusetts, USA: Harvard University Press.
- Stalnaker, R. (2002). Common ground. *Linguistics and Philosophy*, 25(5/6), 701–721.
- Stillman, P. E., Shen, X., & Ferguson, M. J. (2018). How mouse-tracking can advance social cognitive theory. *Trends in Cognitive Sciences*, 22(6), 531–543.
- Tiemann, S., Schmid, M., Bade, N., Rolke, B., Hertrich, I., Ackermann, H., ... Beck, S. (2011). Psycholinguistic evidence for presuppositions: On-line and off-line data. In R. Ingo et al. (Eds.), *Proceedings of Sinn und Bedeutung* (Vol. 15, pp. 581–596). Saarbrücken, Germany: Universaar-Saarland University Press.
- van Moort, M. L., Jolles, D. D., Koornneef, A., & van den Broek, P. (2020). What you read versus what you know: Neural correlates of accessing context information and background knowledge in constructing a mental representation during reading. *Journal of Experimental Psychology: General*, 149(11), 2084–2101.
- van Moort, M. L., Koornneef, A., & van den Broek, P. W. (2018). Validation: Knowledge-and text-based monitoring during reading. *Discourse Processes*, 55(5-6), 480–496.
- van Moort, M. L., Koornneef, A., & van den Broek, P. W.

- (2021). Differentiating text-based and knowledge-based validation processes during reading: Evidence from eye movements. *Discourse Processes*, 58(1), 22–41.
- Wang, L., & Schumacher, P. B. (2013). New is not always costly: Evidence from online processing of topic and contrast in Japanese. *Frontiers in Psychology*, 4, 363.
- Willems, R. M., de Boer, M., de Ruiter, J. P., Noordzij, M. L., Hagoort, P., & Toni, I. (2010). A dissociation between linguistic and communicative abilities in the human brain. *Psychological Science*, 21(1), 8–14.
- Yang, X., Zhang, X., Yang, Y., & Lin, N. (2018). How context features modulate the involvement of the working memory system during discourse comprehension. *Neuropsychologia*, 111, 36–44.
- Yang, X., Zhang, X., Zhang, Y., Zhang, Q., & Li, X. (2020). How working memory capacity modulates the time course of semantic integration at sentence and discourse level. *Neuropsychologia*, 140, 107383.
- Ye, Z. & Zhou, X. (2009). Conflict control during sentence comprehension: fMRI evidence. *Neuroimage*, 48(1), 280–290.
- Zang, C., Zhang, L., Zhang, M., Bai, X., Yan, G., Jiang, X., ... Zhou, X. (2019). Eye movements reveal delayed use of construction-based pragmatic information during online sentence reading: A case of Chinese Lian... dou Construction. *Frontiers in Psychology*, 10, 2211.
- Zhang, X., Zhang, Y., Zhang, Z., Yang, X., & Yang, Y. (2021). How working memory capacity modulates the time course of indirect replies comprehension: An event-related potential study. *Language, Cognition and Neuroscience*, 36(10), 1246–1257.

Presupposition processing in language comprehension

YANG Qi¹, JIANG Xiaoming², ZHOU Xiaolin²

¹ School of Humanities, Tongji University, Shanghai 200092, China

² Institute of Linguistics, Shanghai International Studies University, Shanghai 201620, China

Abstract: Presupposition refers to the non-explicit assumption or belief held by both the listener and the speaker (or the “common ground”). When encountering a message of presupposition, the listener is required