[illegible]

[illegible] Grice (1963), [illegible] 36: "[illegible] 92–96). [illegible] (Deutsch & Dank, 1999; Hirst et al., 1999). For [illegible] (e.g., [illegible]), [illegible] (Grodzinsky, 2005; Hickok & Poeppel, 2002; Kaan, 1992). Consistent with the overall [illegible] (Alemán Bañón, 2009; Angwin, Phillips, Wilson, & Garcia, 2012).

[illegible] (Antón-Méndez, Nicol, & Garrett, 2002; Grodzinsky, 2005; Isel, Gunter, & Friederici, 1999). [illegible] (2010) [illegible] (*...prototipio famoso*s. **prototipo famosa*) [illegible] (*...prototipo famoso*s. **prototipo famosos*).

[illegible] (Kutas & Hillyard, 1980). [illegible] (2011) [illegible] (Hagoort et al., 1999), [illegible] (Gouvea, Phillips, Kazanina, & Poeppel, 2010). However, as [illegible] (2011), [illegible] (Friederici et al., 1999), [illegible] (Kaan & Swaab, 2003). Consistent with this, Hoeks et al. (2005) [illegible] (Hoeks, Vonk, & Schriefers, 2002; Kolk, Chwilla, van Herten, & Oor, 2003; Vos, Gunter, Kolk, & Mulder, 2001).

1.3. Agreement processing in pronoun–antecedent coindexation

[illegible] (Nicol & Swinney, 1989), [illegible] (Love & Swinney, 1996; Nicol & Swinney, 2003). [illegible] (Kaan & Chun, 2008; Kaan & Vasić, 2004; Osterhout & Mobley, 1995). [illegible] (Kaan, 2007; Kaan & Chun, 2009; Kaan & Vasić, 2004). [illegible] (Kaan, 2007), [illegible] (LAN) [illegible] 400 and 600, [illegible].

Hoeks et al. (2008) [illegible] (Kaan & Chun, 2009). [illegible] (*person*), [illegible] (*thing*). [illegible] (200–400 ms) [illegible] 600 [illegible] (Kaan & Chun, 2009) [illegible] (Chow & Phillips, 2011). [illegible] 400 [illegible] 600 [illegible] (Hoeks et al., 2005; Hoeks, Vonk, & Schriefers, 2008; Osterhout, Bersick, & McKinnon, 1997; Osterhout & Nicol, 1995). [illegible] 400 [illegible] (Hoeks et al., 2006; Kolk et al., 2003). [illegible].

[illegible] (*Nref*) [illegible] 2006, 2008; [illegible] 1999; [illegible] 2003). [illegible] 600) [illegible] (Ka[illegible], 2000; [illegible] 2006; [illegible] 2007). [illegible] 600 [illegible] (L[illegible] 2010; [illegible] 1995) [illegible] *Four ships appeared on the horizon, six had sunk*; Ka[illegible] 2007). [illegible] *Nref* [illegible] 600 [illegible] (1995) [illegible] 600 [illegible]

1.4. The present study

[illegible] 1997). [illegible] 我们 (/[illegible]/), 你们 ([illegible]/), 他们 ([illegible]/), 他们 ([illegible]/), 她们 ([illegible]/). [illegible] 1994; L[illegible] 1999) [illegible] 2000). [illegible] 600 [illegible] (E[illegible] 1), [illegible] *Nref* [illegible]

Table 1
E[illegible] 1.

C[illegible]	E[illegible]
C[illegible]	这位女患者情绪低落,医生/鼓励/她/振作/起来。 [illegible] **ta**$_{female}$ [illegible]. *This woman patient was in low spirits, doctors encouraged* ***her*** *to cheer up*
[illegible]	这些女患者情绪低落,医生/鼓励/她/振作/起来。 [illegible] **ta**$_{female}$ [illegible]. *These women patients were in low spirits, doctors encouraged* ***her*** *to cheer up*
G[illegible]	这位女患者情绪低落,医生/鼓励/他/振作/起来。 [illegible] **ta**$_{male}$ [illegible]. *This woman patient was in low spirits, doctors encouraged* ***him*** *to cheer up*
D[illegible]	这些女患者情绪低落,医生/鼓励/他/振作/起来。 [illegible] **ta**$_{male}$ [illegible]. *These women patients were in low spirits, doctors encouraged* ***him*** *to cheer up*

l e e t a t e a t a e e t a s t e . A t e a a (2006), Nref s a t e - l - s t e s a e a t t a t a t 300 s s t - l s t a a a a s s t a a s e e e (. . *The chemist hit the historian while he*. . .; e a & a B e , 2006, 2008; a B e t a l., 1999; a B e t a l., 2003). H e a s a e l e a s e a s t e t a e a t s t e l a t e e t. e e a s e e e e a t e, t a t s s a a t a a a l a e e s a t s e a l l t D 600 e t (s t & e , 1995; B e , a l s, & G e a s, 2004; a e t a l., 2008; e s t a l., 1997) l e s a l l s s s e l a l e e s a t a l s e e a 400 e t (a e s t a l., 2006; a t t a l., 2002), t a a a a e a t e e e a t a e e t a a t e e t a t a e e t a t a e e t a t a

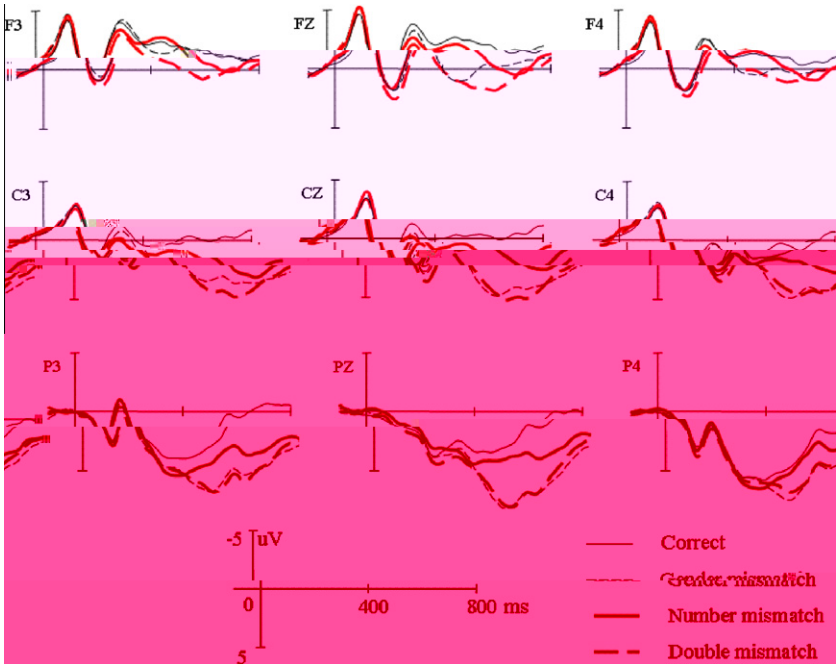

Fig. 1. [illegible] 1.

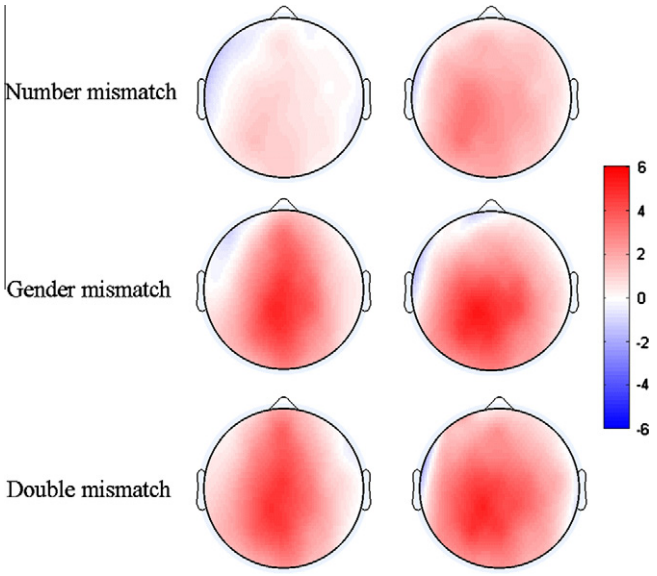

Fig. 2. [illegible] 400 550 [illegible] 550 800 [illegible] 1.

[illegible]

2.2.2.1. ERP responses in the 250–400 ms time window. [illegible] (0.73 μV), $F(1,23) = 4.63$, $p < 0.05$, [illegible] (0.83 μV) [illegible] (0.68 μV) [illegible], $F(1,23) = 5.90$, $p < 0.05$, [illegible] $F(1,23) = 6.76$, $p < 0.05$, [illegible] $F < 1$. [illegible] $F(1,23) = 3.15$, $0.05 < p < 0.1$ [illegible] $F < 1$ [illegible], $F(1,23) = 4.04$, $0.05 < p < 0.1$ [illegible] $F(1,23) = 3.34$, $0.05 < p < 0.1$ [illegible], $F(1,23) = 6.99$, $p < 0.05$ [illegible] $F(1,23) = 3.37$, $0.05 < p < 0.1$ [illegible].

2.2.2.2. ERP responses in the 400–550 ms time window. [illegible] $F(1,23) = 70.02$, $p < 0.001$, [illegible] $F(1,23) = 48.13$, $p < 0.001$, [illegible] (3.61 μV [illegible] 2.23 μV [illegible]). [illegible] $F(5,115) = 4.49$, $p < 0.05$, [illegible] $F(2,46) = 3.89$, $0.05 < p < 0.1$. [illegible] $F(1,23) = 1.90$, $p > 0.1$, [illegible] $F < 1$, [illegible] $F(1,23) = 1.45$, $p > 0.1$ [illegible] $F < 1$ [illegible].

[illegible] $F(1,23) = 42.52$, $p < 0.001$ [illegible] $F(1,23) = 32.33$, $p < 0.001$ [illegible] $F(1,23) = 50.99$, $p < 0.001$ [illegible] $F(1,23) = 46.08$, $p < 0.001$ [illegible] $F(1,23) = 2.49$, $p > 0.1$ [illegible] $F < 1$ [illegible]. [illegible] $F(1,23) = 49.64$, $p < 0.001$, [illegible] $F(1,23) = 43.05$, $p < 0.001$, [illegible] (3.24 μV [illegible] 2.04 μV [illegible]) [illegible].

2.2.2.3. ERP responses in the 550–800 ms time window. [illegible] $F(1,23) = 44.44$, $p < 0.001$ [illegible] $F(1,23) = 41.07$, $p < 0.001$ [illegible] $F(1,23) = 9.92$, $p < 0.005$ [illegible] $F(1,23) = 18.84$, $p < 0.001$ [illegible] 400 [illegible] P600 [illegible] $F(1,23) = 9.18$, $p < 0.01$ [illegible] $F(1,23) = 8.88$, $p < 0.01$ [illegible] $F(5,115) = 5.55$, $p < 0.01$ [illegible] $F(2,46) = 4.39$, $p < 0.05$ [illegible] P600 [illegible] $F(1,23) = 40.78$, $p < 0.001$ [illegible] $F(1,23) = 17.37$, $p < 0.005$ [illegible] $F(1,23) = 42.69$, $p < 0.001$ [illegible] $F(1,23) = 12.58$, $p < 0.005$ [illegible] $F(1,23) = 38.02$, $p < 0.001$ [illegible] $F(1,23) = 47.36$, $p < 0.001$ [illegible] Figs. 1a and 2, [illegible] Fs < 1. [illegible] $F(1,23) = 10.18$, $p < 0.005$, [illegible] $F(1,23) = 7.13$, $p < 0.05$.

2.3. Discussion

[illegible] 250–400 [illegible] *less* [illegible] P600 [illegible] P600 [illegible] 400–550 ms) [illegible] 550–800 ms [illegible] P600 [illegible] 400 ms (Daltrozzo & Schön, 2009; Hsu et al., 2008; Hsu et al., 2006; Kuperberg et al., 2003). [illegible] Chinese [illegible] P600 [illegible] 400–550 ms, 550–800 ms [illegible] P600 [illegible] 550–800 ms [illegible] Fig. 4. [illegible] P600 [illegible] P600 [illegible] Kaan et al., 2000; Kaan & Swaab, 2003; Kuperberg et al., 2003; Osterhout et al., 1994). Jiang et al. (2009) [illegible] 都 (/*dou*/, *all*) [illegible] Chinese [illegible] P600 [illegible] P600 [illegible] 400–550 ms [illegible] P600 [illegible] 550–800 ms [illegible] P600 [illegible] P600 [illegible] P600

Table 3
E [illegible] 2.

Context	Examples
Control	这些女患者情绪低落,医生/鼓励/她们/振作/起来。 **ta-men**$_{female}$
	These women patients were in low spirit, doctors encouraged ***them***$_{female}$ *to cheer up*
[illegible]	这位女患者情绪低落,医生/鼓励/她们/振作/起来。 **ta-men**$_{female}$
	This woman patient was in low spirit, doctors encouraged ***them***$_{female}$ *to cheer up*
[illegible]	这些女患者情绪低落,医生/鼓励/他们/振作/起来。 **ta-men**$_{male}$
	These women patients were in low spirit, doctors encouraged ***them***$_{male}$ *to cheer up*
[illegible]	这位女患者情绪低落,医生/鼓励/他们/振作/起来。 ta-[illegible]
	This woman patient was in low spirit, doctors encouraged ***them***$_{male}$ *to cheer up*

t). [illegible] 600 [illegible].

C[illegible], [illegible] "们, /*men*/,; [illegible], 1994; [illegible], 1999) [illegible]. [illegible] 2 [illegible], [illegible] [illegible]. [illegible] [illegible] [illegible]

[illegible]

3.2. Results

3.2.1. Behavioral results

[illegible] 87.6% [illegible] (D = 1.7%), 91.3% [illegible] (D = 1.4%), 95.6% [illegible] (D = 1.1%), 98.3% [illegible] (D = 0.5%). A [illegible] $F(1,23) = 42.04$, $p < 0.001$, [illegible] $F(1,23) = 7.78$, $p < 0.01$, [illegible] $F(1,23) < 1$. C [illegible] (96.9% [illegible] 89.5%) [illegible] (94.8% [illegible] 91.6%).

3.2.2. Electrophysiological results

[illegible] F . 3. [illegible] E [illegible] 1, [illegible] F . 4. F [illegible] E [illegible] 1.

3.2.2.1. ERP responses in the 250–400 ms time window.

[illegible] $F(1,23) = 7.82$, $p < 0.05$ [illegible] $F(1,23) = 9{,}08$, $p < 0.01$ [illegible] F [illegible] < 1.

[illegible] $F(1,23) = 5.04$, $p < 0.05$, [illegible] (−0.72 μ [illegible]

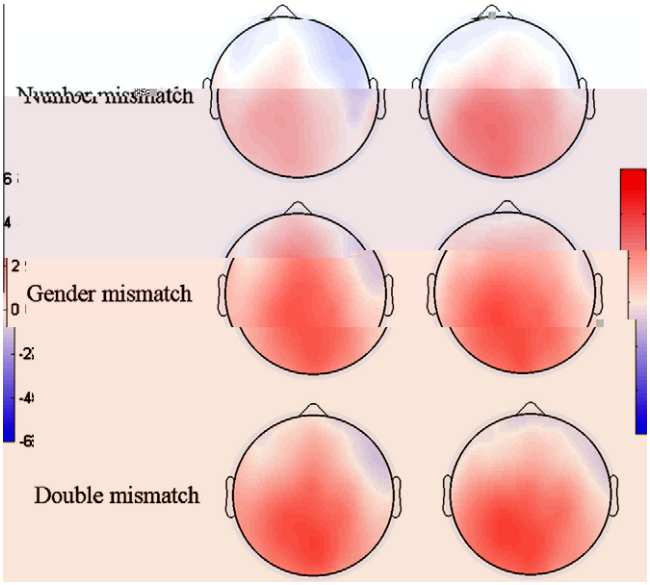

Fig. 4. [illegible] 400 550 [illegible] 550 800 [illegible] E [illegible] 2.

[illegible] (p [illegible] > 0.1).

3.2.2.2. ERP responses in the 400–550 ms time window.

[illegible] E [illegible] 1, [illegible] $F(1,23) = 41.93$, $p < 0.001$, [illegible] $F(1,23) = 1.72$, $p > 0.1$, [illegible] $F(1,23)=2.61$, $p > 0.1$. [illegible] $F(1,23) = 32.11$, $p < 0.001$, [illegible] $F(1,23) < 1$, [illegible] $F(1,23) < 1$.

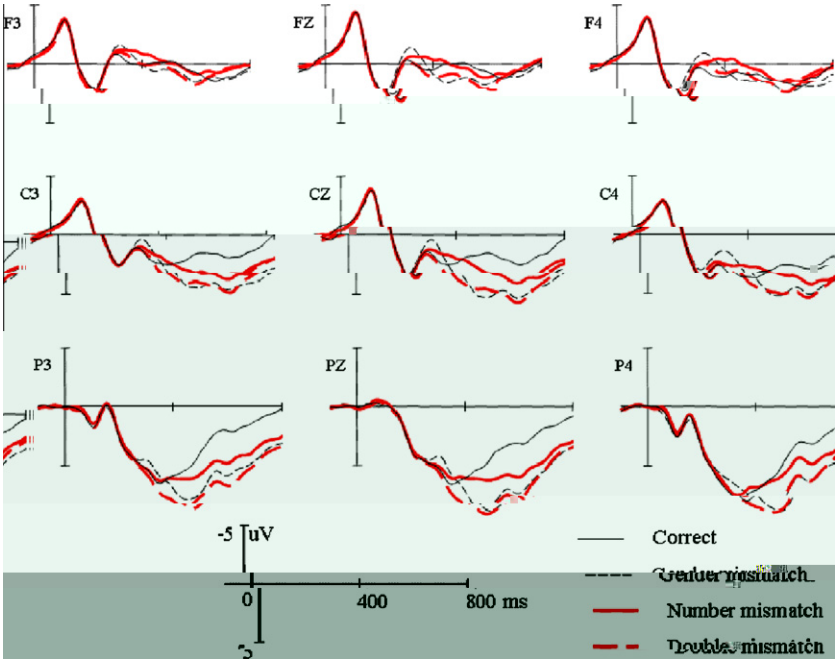

Fig. 3. [illegible] E [illegible] 2.

At the anterior electrode sites, the main effect of Group was significant, $F(5,115) = 3.90$, $p < 0.05$, and so was the interaction between Group and Electrode Site, $F(10,230) = 6.00$, $p < 0.05$, and $F(2,46) = 9.35$, $p < 0.005$, respectively. Follow-up analyses revealed that the Group effect was significant at Fz ($0.56\ \mu V$), $F(1,23) = 8.56$, $p < 0.01$.

3.2.2.3. ERP responses in the 550–800 ms time window. In the 550–800 ms time window, the main effect of Group was significant, $F(1,23) = 26.22$, $p < 0.001$, as was the interaction between Group and Electrode Site, $F(5,115) = 9.81$, $p < 0.001$, and the interaction between Group and Hemisphere, $F(1,23) = 7.09$, $p < 0.05$. Separate analyses at the midline electrodes revealed that the Group effect was significant at Fz, $F(1,23) = 25.46$, $p < 0.001$; at Cz, $F(1,23) = 6.90$, $p < 0.05$; and at Pz, $F(1,23) = 5.43$, $p < 0.05$. These results indicate that the Group effect was greatest at Fz (see Fig. 3).

Separate analyses at the lateral electrode sites revealed significant Group effects at all sites. Follow-up analyses revealed that the Group effect was significant at F3, $F(1,23) = 7.04$, $p < 0.05$, but not at F4, $F(1,23) < 1$. This pattern of results indicates that the Group effect was greatest at the left anterior electrode site. Separate analyses at the left and right posterior electrode sites revealed that the Group effect was significant at P3 (4.07 vs. $3.27\ \mu V$), $F(1,23) = 6.96$, $p < 0.05$, and at P4 (3.52 vs. $2.73\ \mu V$), $F(1,23) = 9.64$, $p < 0.01$.

3.2.2.4. Combined analysis of ERP results in Experiments 1 and 2. Given that Experiments 1 and 2 were essentially identical, we combined the ERP data from these experiments to statistically analyze the scalp distribution of the Group effects.

At the 250–400 ms time window, the main effect of Group was significant, $F(1,46) = 3.68$, $p < 0.05$, as was the interaction between Group and Hemisphere, $F(1,46) = 6.91$, $p < 0.05$, and $F(1,46) = 5.57$, $p < 0.05$, respectively. Follow-up analyses revealed that the Group effect was significant at F3, $F < 1$. These results indicate that the Group effect was greatest at the left anterior electrode site (i.e., the site at which the Group effect was largest).

The Group effect was also significant in the 400–550 ms time window, $F(1,46) = 3.09$, $0.05 < p < 0.1$. This effect was greatest at Fz, $F(1,46) = 4.55$, $p < 0.05$, and at Cz, $F(1,46) = 5.03$, $p < 0.05$. Separate analyses at the lateral electrode sites revealed that the Group effect was significant at F3 and F4 (see Table 2). For the Group effect, the Hemisphere by Anterior/Posterior interaction was significant, $F(2,92) = 6.85$, $p < 0.05$. Follow-up tests revealed that the Group effect was greatest at the anterior electrodes, $F(5,230) = 1.13$, $p > 0.1$, and at the lateral electrodes, $F(2,92) = 1.69$, $p > 0.1$, at the left anterior electrode site. Separate analyses at the 250–400 ms time window revealed that the Group effect was significant at F3, but not at F4 (Fs < 1), at the left posterior electrode site, but not at the right posterior electrode site. For the Group effect, the Hemisphere by Anterior/Posterior interaction was significant (Fs < 1), as was the Group effect at the left anterior electrode site, $F(5,230) = 3.83$, $0.05 < p < 0.1$, and at the lateral electrodes, $F(2,92) = 5.02$, $p < 0.05$. Overall, the Group effect was greatest at the left anterior electrode site (i.e., Experiment 1, the same as Experiment 2) (Fs. 1a 3).

At the 400–550 ms time window, the Group effect was significant at Fz, $F(1,46) = 111.84$, $p < 0.001$, and at the lateral electrodes, $F(1,46) = 80.01$, $p < 0.001$. These effects were qualified by a Group by Electrode Site interaction at the midline electrodes, $F(5,230) = 8.44$, $p < 0.005$, and by a Group by Hemisphere interaction at the lateral electrodes, $F(2,92) = 11.45$, $p < 0.005$. These results indicate that the Group effect was greatest at the left anterior electrode site. Separate analyses at the midline electrodes revealed that the Group effect was significant at Fz, $F(1,46) = 5.44$, $p < 0.05$, as was the Group by Experiment interaction (Experiment 1 vs. Experiment 2).

The Group effect was also significant at the 550–800 ms time window, $F(1,46) = 3.55$, $0.05 < p < 0.1$, as was the Group by Hemisphere interaction at the lateral electrodes, $F(2,92) = 7.04$, $p < 0.01$. Separate analyses revealed that the Group effect was significant at the left anterior electrode site, but not at the right anterior electrode site.

At the 550–800 ms time window, the Group effect was significant at Fz, $F(1,46) = 70.37$, $p < 0.001$, and at the lateral electrodes, $F(1,46) = 65.99$, $p < 0.001$, as was the Group by Electrode Site interaction at the midline electrodes, $F(5,230) = 19.01$, $p < 0.001$, the Group by Hemisphere interaction at the lateral electrodes, $F(2,92) = 24.89$, $p < 0.01$. These interactions indicate that the Group effect was greatest at the left anterior electrode site. Separate analyses at the midline electrodes revealed that the Group effect was significant at Fz, $F(1,46) = 16.26$, $p < 0.001$, and at Cz, $F(1,46) = 14.01$, $p < 0.005$, but not at the P3 600 ms electrode site. Given that the Group effect was greatest at the left anterior electrode site, and was significant at Fz, but not at Cz, the Group effect was greatest at Fz. Group effects at the lateral electrodes revealed that the Group effect was significant at F3, $F(1,46) < 1$, and at F4, $F(1,46) = 1.43$, $p > 0.1$, respectively. Follow-up tests revealed that the Group effect was significant at the P3 600 ms electrode site, but not at the P4 600 ms electrode site.

The Group effect was also significant at the 800–1000 ms time window, $F(1,46) = 19.33$, $p < 0.001$, and at the lateral electrodes, $F(1,46) = 24.88$, $p < 0.001$. These effects were qualified by a Group by Hemisphere interaction at the lateral electrodes, $F(2,92) = 9.22$, $p < 0.01$, as was the Group effect at the P3 600 ms electrode site, but not at the P4 600 ms electrode site. Separate analyses revealed that the Group effect was significant at Fz, $F(5,230) = 5.86$, $p < 0.005$, and at the lateral electrodes, $F(2,92) = 9.39$, $p < 0.005$, as was the Group effect at the P3 600 ms electrode site, but not at the P4 600 ms electrode site (Experiment 2 vs. Experiment 1). The Group effect was greatest at the P3 600 ms electrode site 4.38(F)4/F309s1

[illegible] Experiment 1, the 250–400 ms [illegible] 400-[illegible] [illegible] et al. (2002) [illegible] et al. (2006). [illegible] et al. (2002) [illegible] 600-[illegible] [illegible] 400-[illegible] [illegible] (e.g., as *Bill*, 'the *little* '), [illegible] (e.g., as *Bill*, 'the '), [illegible] 400-[illegible] [illegible] the [illegible] [illegible] et al. (2006) [illegible] 400-[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] (280–420 ms) [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] et al., 2005; [illegible] et al., 2012). [illegible] [illegible] [illegible]

Acknowledgments

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at , C. L. (1993). *Developmental Review, 13*, 184 204.

at -L s, ., ., G a D., H l , A., & . (2006). *Brain Research, 1093*, 178 189.

a , ., B , H. A., & G a s, . (2011). *Cortex, 47*, 908 930.

a , ., K , A., s a , F., & J , . (2008). *Cognition, 106*, 963 974.

a , ., s a , F., a a , ., & J , . (2011). *Journal of Memory and Language, 64*, 211 232.

, H. J., s, D. L., & s , D. . (1992). *Cerebral Cortex, 2*, 244 258.

s, A., D , B., a ta , ., & s, C. (2007). *Brain Research, 1164*, 81 94.

, ., ., & B , J. J. A. (2006). *Brain Research, 1118*, 155 167.

, ., & B , J. J. A. (2008). *Brain and Language, 106*, 119 131.

, . . (1992). *Features, positions, and affixes in autonomous morphological structure*. A: I st .

st , L., A , ., & , J. (2002). *Journal of Neurolinguistics, 15*, 171 187.

st , L., B s , ., & , J. (1997). *Memory and Cognition, 25*, 273 285.

st , L., & , L. A. (1995). *Journal of Memory and Language, 34*, 739 773.

s, C., za a , ., & A a , H. (2005). *Cognitive Brain Research, 22*, 407 428.

, L., a , . ., H. C., & a , . (2012). *Plos ONE, 7*(5), e 36156.

a a , ., & H s , J. (2010). *Lingua, 120*, 2022 2039.

tt , B., s, ., & , . F. (2002). *Cognitive Brain Research, 14*, 333 346.

a- , J. F., & G a s, . (2007). *Brain Research, 1185*, 201 211.

a , ., H , K., K a , K., & K , G. (2008). *Journal of Cognitive Neuroscience, 20*, 2037 2057.

, K. a a , ., a , A. J., G a , ., & a , . . (2001). *Neuroreport, 12*, 999 1005.

, L. K. (1983). *Cognition, 13*, 309 341.

, J. J. A., B , C., & d t, D. (1999). *Journal of Memory and Language, 41*, 147 182.

, J. J. A., B , C., d t, D., & s , D. (2003). *Psychophysiology, 40*, 235 248.

, J. J. A., K , A., tt , ., & , . . (2007). *Brain Research, 1146*, 158 171.

, G., B tt , B., & G tt , . F. (1996). *Cognition, 51*, 261 298.

s, . (1981). *Journal of Experimental Child Psychology, 32*, 264 278.

, L., ., F , A. D., & , . (2006). *Brain Research, 1071*, 186 196.

, ., & , . (2009). *Neuroscience and Biobehavioral Reviews, 33*, 1168 1177.

, J., & , . (2008). *NeuroReport, 19*, 745 749.

, ., J., & B , J. E. (2010). *Journal of Experimental Psychology: Learning, Memory, and Cognition, 36*, 765 781.

, ., ., ., , ., L , K., & , . (2010). *Neuropsychologia, 48*, 1551 1562.