



, & , 2004  
 , & , 2010).  
 ( )  
 ( & , 200  
 , 2004).  
 ( )  
 ( )  
 ( )  
 (2004),  
 ( , I ) 250  
 ( ,  
 I ).  
 400 ( &  
 ,  
 2004),  
 ( )  
 2010 & , 200 , 200  
 2010).I (200 ),  
 ( , )  
 ( )  
 ).  
 0  
 (42 )  
 (200 ), 250  
 350  
 ( ### )  
 ( ##### )  
 (2010).  
 100 ( 100-  
 120- )  
 ( , 2012).  
 ( )

,  
 , 6%  
 11  
 ( & , 1 ).  
 ( , 会  
 “ 4” “ 4,” )I  
 ,  
 ,  
 ( , 2005,  
 ),  
 ( , I , & , 2002 , &  
 2012 , & , 2004  
 , & , 2015 , & , 200  
 & , 2012, )  
 ( , & , 200  
 , & , 2010).  
 ( & , 2012,  
 ).  
 ( )  
 & , 1 , 2005,  
 & , 2000,  
 ).  
 ( , & , 2001 , 2002  
 & , 2014 & , 1 , 2000, 200 )  
 (2014)

*neutral-tone word.*

(200 )

& (2012), & (2013)

(2012).

(& (2014)

(2014),

*neutral tone*

(1.6),

(1

( )

(1.6 & 1.0

,200 ) ( )

(. , 0) ( .

& (2006).

( & (2006),

火

“ ” 3

( “ ”),

火柴( “ ”),

炉火( “ ”).

,柴火(

“ ”)

(2014),

2.

( & I , 2010 I , & , 2004)

### Experiment 1

100 250

( & , 200 & , 2006),

( , 2014).

400

400

(2014).I

400

### Method

#### Participants

32 (14 ) 1 2 ( 22)

### Material

1),  $F < 1.$

( & , 2010).I 3. (SD 0. 3) 3.66 (SD 0. 4) 5- ( 12 )

$F(1, 112) = 1.102, p = .296, \eta^2 = .01$

5. 1 (SD 1.22) 6.02 (SD 1.0 )  $F(1, 112) = 0. 3, p = .335, \eta^2 = .002$ .

Table 1

-1 ( . 1)				
	2.5	1.6	2.4	16.6
SD	1.5	5.	1.24	5.5
-1 ( . 2)				
	2.6	16.3	2.6	15.0
SD	1.46	5.	1.26	4.2
	2.0	16.1	2.03	16.3
SD	0.2	4.0	0.	3.
+1 ( . 2)				
	2.	16.3	2.6	15.5
SD	1.1	3.	1.02	4.4

**Table 2**

	233	2.1
I	4.6	5.4
(5-	3.	3.6
( )	5.1	6.02
(%)		4

114

*shi-huan*



10–15

(, 2004).

2013),

( & , 2005).

( )

(233, 2.1),  $F(1, 112) = .003, p < .001,$

(4.6, 5.4),  $F(1, 112) = 1.3, p = .055,$

( 2).

I

114

( 1 )

10, 16

(  
,  $SD = 0.$ ).  
, *pretarget words*—

( 1),  $p = .3.$

( )  
3 ( 55 ( % = 4%, )  
 $F(1, 112) = 1.43, p = .233$  2.1, 1

*Procedure*

100

24

500

200-

, 400

400-

114

*very easy*, *very difficult*.

<i>Neutral tone condition</i>				
Chinese	老板	总是	使唤	秘书 来帮忙处理私事。
Interest Regions		Pretarget	Target	Posttarget
Pinyin & Tone		shi3 huan		
Literal Translation	Boss	always	order around	secretary to help conduct private business
Translation	The boss always bossed the secretary to help take care of his private business.			
<i>Full tone condition</i>				
Chinese	会计	经常	使用	算盘 来核对账目。
Interest Regions		Pretarget	Target	Posttarget
Pinyin & Tone		shi3 yong4		
Literal Translation	Accountant often	use	abacus	to check accounts.
Translation	The accountant often used abacus to check accounts.			

Fig. 1

1.4 ( $F < 1$ ) (2, 4), 15, 1, 000

(2, 4), 15, 1, & (2014).

EEG recordings

10-20, 5 Ω, 0.01, 100-500, 2012, 2014, 15, (1, 3), (1, 3), (1, 3), (2, 4), (2, 4), (2, 4)

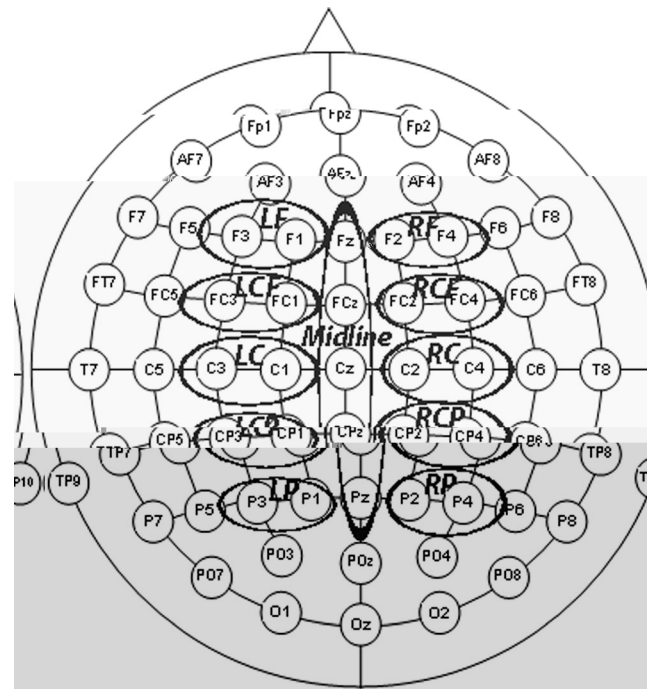


Fig. 2

*Data analysis*

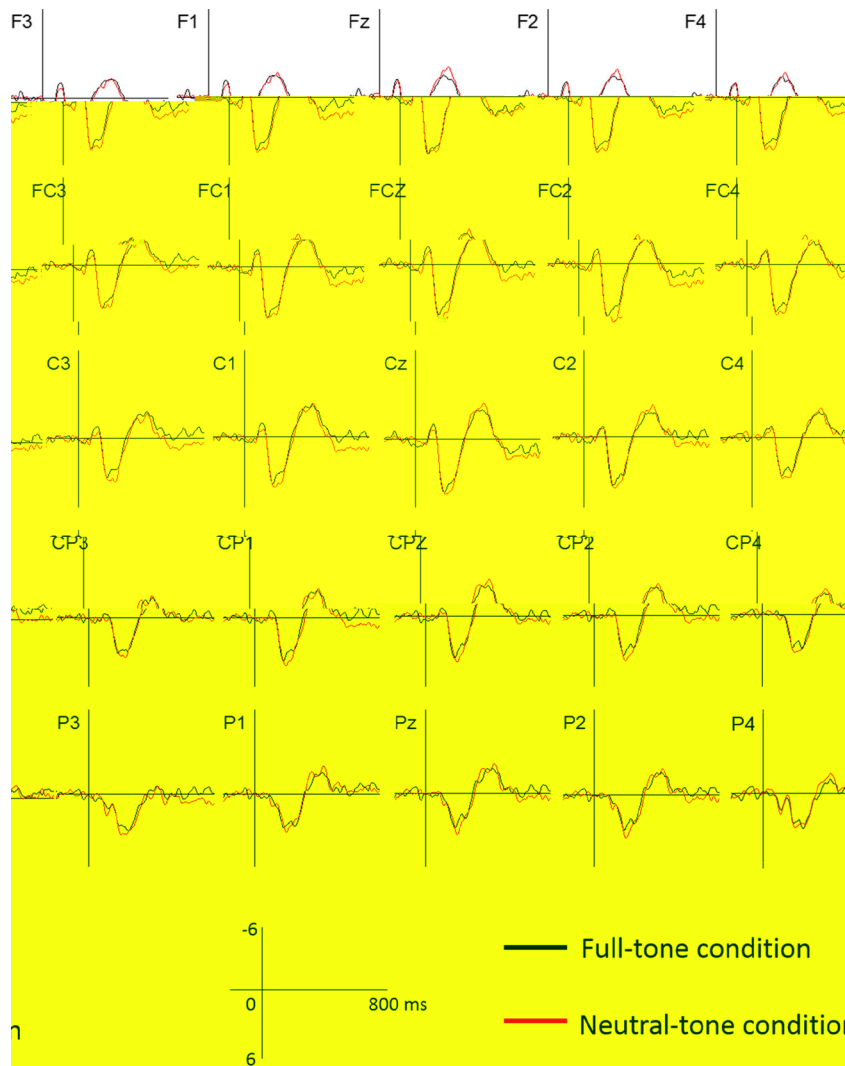
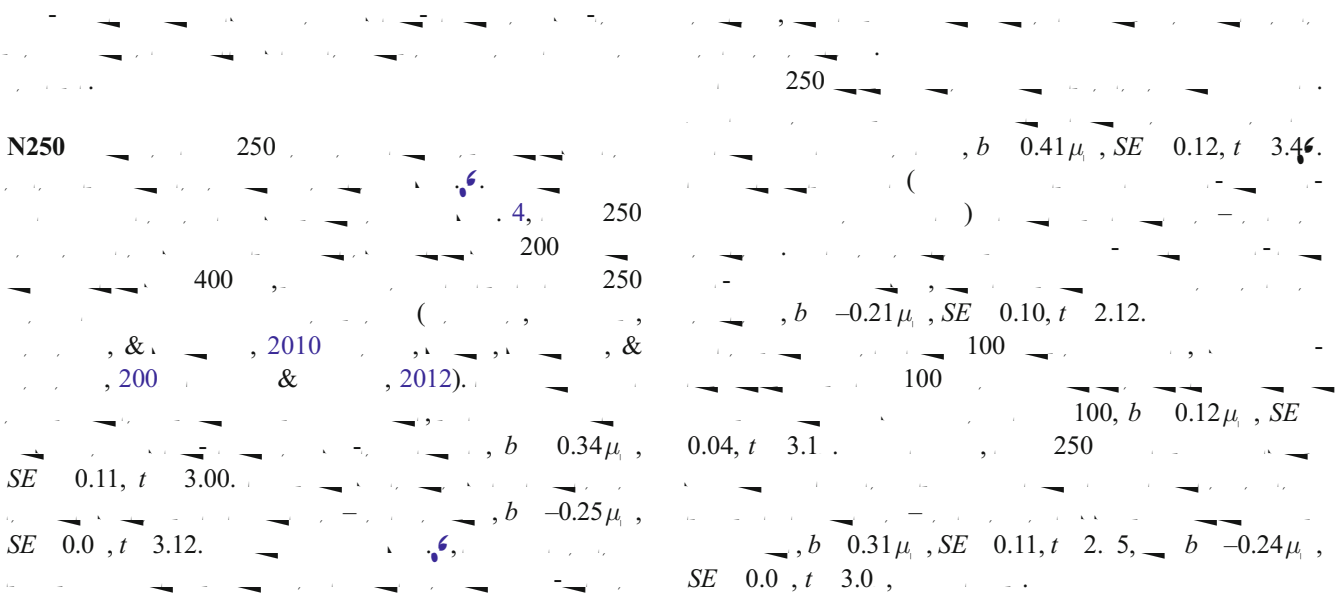


Fig. 3





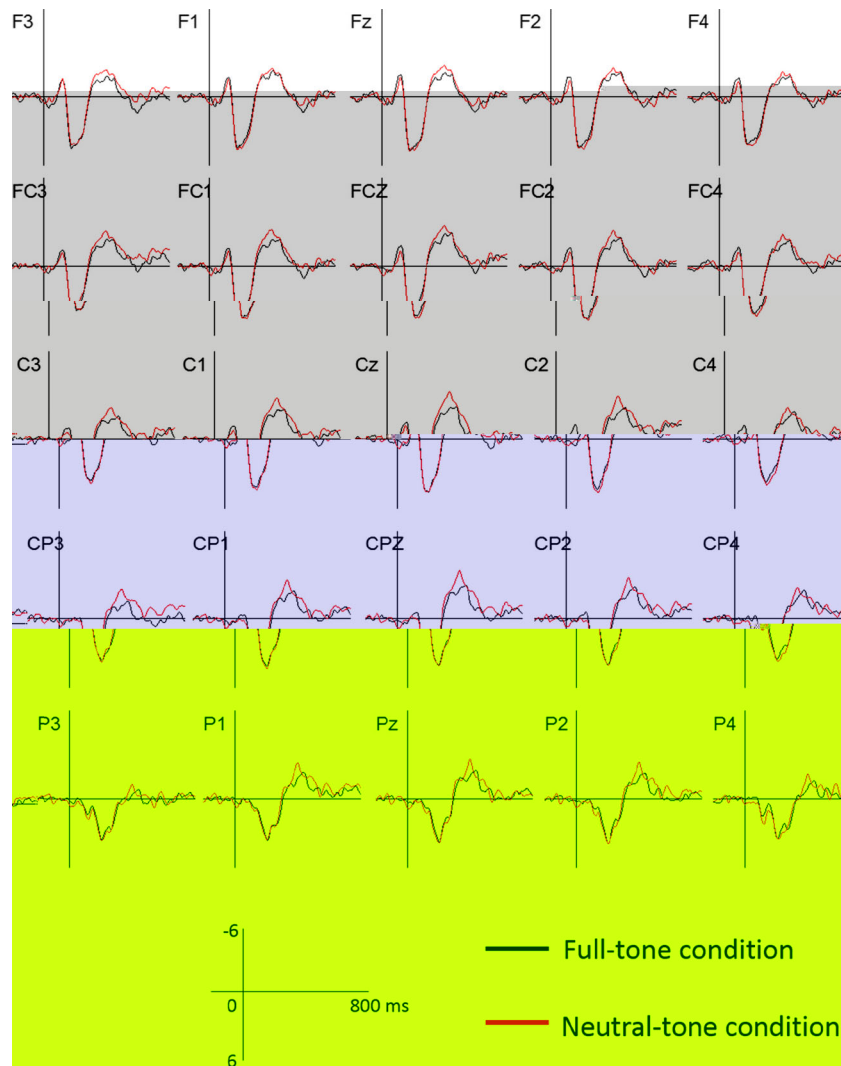


Fig. 4

**N400** 400  
 $b = -0.60 \mu\text{V}$ ,  $SE = 0.13$ ,  $t = 4.62$   
 $b = -0.6 \mu\text{V}$ ,  $SE = 0.14$ ,  $t = -4.4$   
 $b = 0.34 \mu\text{V}$ ,  $SE = 0.04$ ,  $t = .12$   
 $b = -0.2 \mu\text{V}$ ,  $SE = 0.13$ ,  $t = 5.3$   
 $b = 0.1 \mu\text{V}$ ,  $SE = 0.13$ ,  $t = 6.06$

**P600** 600  
 $b = -0.32 \mu\text{V}$ ,  $SE = 0.14$ ,  $t = -2.1$   
 $b = -0.14 \mu\text{V}$ ,  $SE = 0.14$ ,  $t = -1.0$

0.05,  $t = -2.0$   
 $b = 0.0 \mu\text{V}$ ,  $SE = 0.03$ ,  $t = 2.0$   
 $b = 0.14 \mu\text{V}$ ,  $SE = 0.10$ ,  $t = 1.3$

**Discussion**

100  
 250  
 400  
 100

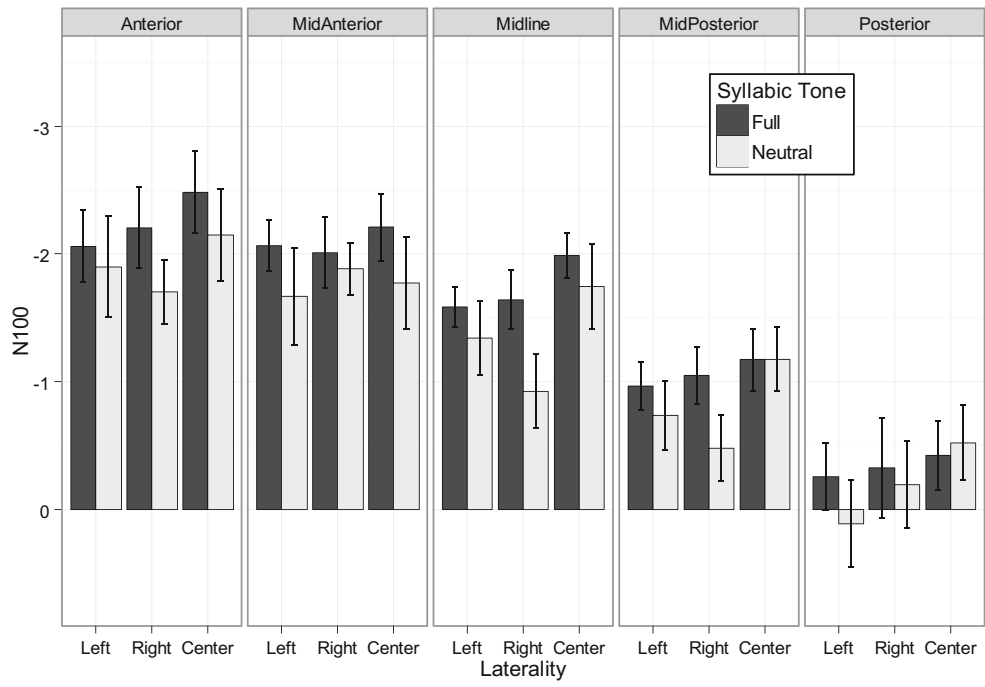


Fig. 5 100 SE

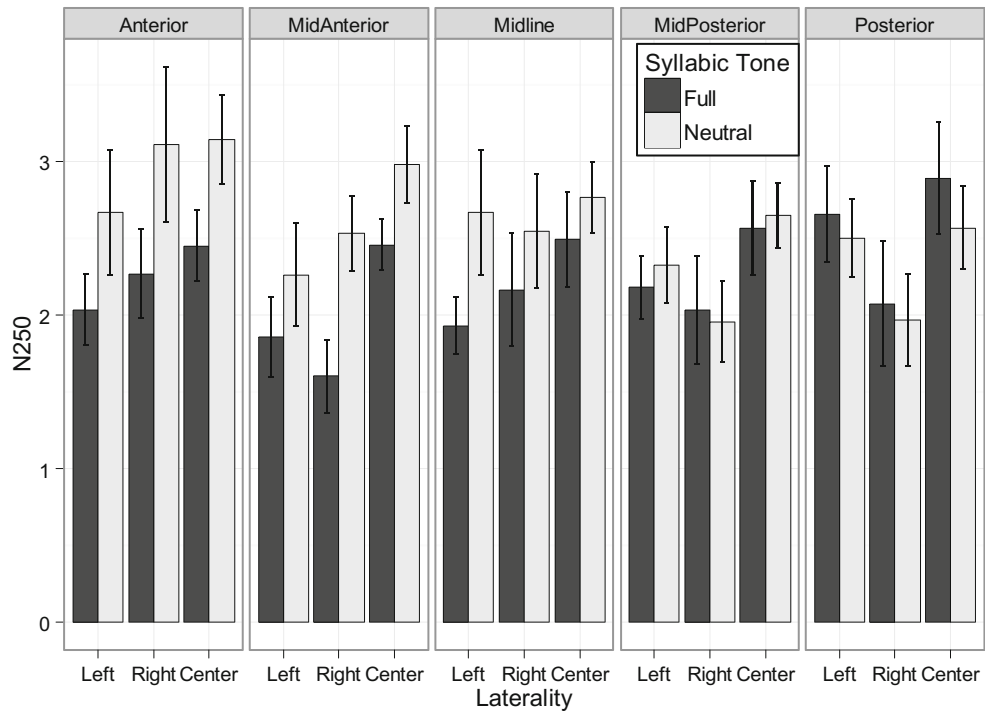
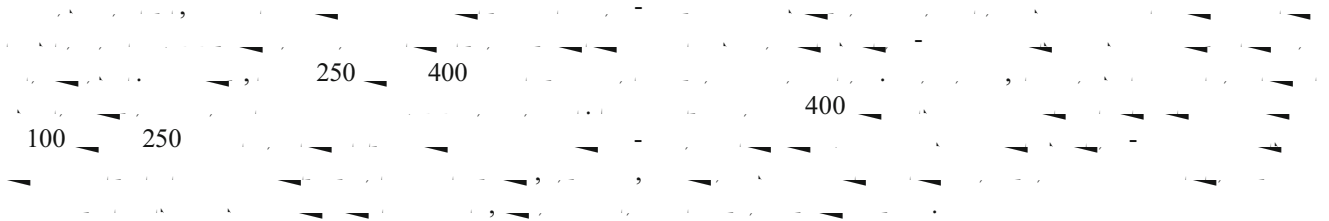


Fig. 6 250 SE



(2014),

( ),

I 400  
(200 , 2011) 400

( & , 2011),

( & , 2012).  
400

.I

400

( , & , 1 5  
, 2005 & , 200 ).

( , 2013, )

### Experiment 2

.I 2

(2014).

( , 2004)—

I I (2004),  
( )

( &I , 2010).

2, I (2004)

( )

( , &I , 2010 I , 2004),

### Method

**Participants** 50.  
(1 2 )

**Material**

1.  $N-1$   $N$ ,  $p = .1$  (1). 13 25 1 (102, 300, 1 1 (SD 2), 1 4 (SD 21), 1 5 (SD 21),  $F < 1$ . 114 (n 1). I (2004). (&I, 2010) ( )

**Apparatus**

2000 2 0.2 21- (1,024 -20) 100 0.5 0 60 4

**Procedure**

0.5 1, 4- 1 most easy 4 most difficult. (1.3 . 1.3),  $F < 1$ .

## Measurement and data analysis

(I & 1, 1),

(, & 2005, & 200).

( & 2005).

(, 2014).I (, 200).

1. % 10 %.

(,).

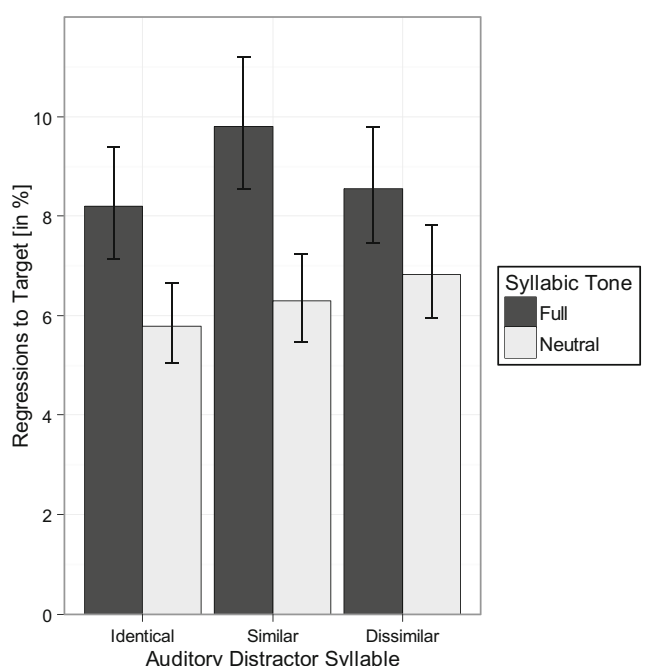
(, 5 00).

**Table 3**

	I			I		
	26 (6.2)	26 (.1)	24 (5.3)	2 (6.3)	2 (5.6)	2 (6.5)
	313 (. .)	321 (10.2)	325 (.3)	33 (11.3)	33 (. .)	336 (. .)
	361 (13.3)	33 (14.2)	33 (10.5)	34 (13. .)	406 (13. .)	400 (12. .)
	22 (5.3)	26 (6.2)	22 (5.0)	25 (6.2)	26 (6. .)	26 (5. .)
	320 (.5)	312 (6)	301 (.2)	32 (.1)	314 (.0)	312 (.5)
	31 (10. .)	36 (10.3)	35 (12.3)	3 (12.3)	3 (12.0)	34 (13.4)

(-4 .),  $b = -0.01$ ,  $SE = 0.013$ ,  $t = 1.41$ ,  
 (-1 .),  
 (-31 .),  $b = -0.046$ ,  $SE = 0.020$ ,  $t = 2.24$ ,  $b = -0.02$ ,  
 $SE = 0.025$ ,  $t = 2. .$ ,  
 (6.3 %  
 .%, .),  $b = -0.352$ ,  $SE = .11$ ,  $z = 2.06$ .  
 (1.20 - 1.24, .).  
 .1,  $SE = .103$ ,  $z = 1.3$ ,  $p < .11$ .

(2014)  
 (2005),  
 (3 - 5 .),  
 ( $t < 1.5$ ).  
 (11 .),  $b = -0.00$ ,  $SE = .005$ ,  $t = 1.5$ ,  $p < .1$ .  
 ,  $t < 1.5$ .



**Fig. 8** Regressions to target in the posttarget word region for identical, similar, and dissimilar auditory distractor syllables. Error bars represent SE

**Posttarget word region**  
 $t < 1.4$ .  
 (14 .),  
 (10 .)  $b = .00$ ,  $SE = .004$ ,  $t = 2.21$   
 $b = .013$ ,  $SE = .005$ ,  $t = 2. .$   $b = .011$ ,  $SE = .005$ ,  $t = 2.21$ ,  
 (2, 6, 13 .),  $t < 1.5$ ,  
 ,  $t < 1.5$ .

**Discussion**

2,

(2014),

1.

2.

*longer*

( , 2005

, 200 ) ,

1 ( , 2004

( & , 2010

(“ ”) (“ ”),

2

( )

1

(2014),

( )

2,

*longer*

( , 2004)

( , 200 ) ,

1

(2014) I

( & I , 2010 I



...  
...  
...

### General discussion

I ...  
...

... 1, 100, 250, 2, 400, 1, 2.

( & , 200 , 200 , 2010),

( & , 1 , 2010 , 2004).

( & , 200 & , 2004).

*not*

(1 ),

I ...  
... ( & , 2011).

( , 2014).

100 250

(2004, . 162)

( & , 2005).

( . . , “ ” “ ” )

( . . , “ ” “ ” “ ” “ ” “ ” ).

, & , 2005),

( & , 200 , & , 200 ).

2002).I

1 & , 1 & , 200 ) ,

1 2.

1 2

( , 2005 & , 200 ).

I 2,

(2014), 400 1

1 2

(2014).

2

(2014)

1

( , 1 3).

(2014),

2,

I 1, 100

2,

1  
(2014)  
(2014)  
(2014)  
(2014)  
1 2  
(2003)

45  
5  
I  
(  
(  
(  
, & , 1 ),  
(  
(

*Morphological Structure*

	25	2
	22	1
	4	2
	3	3
	1	3
	1	1
	1	1

*Morphemic Status*

(2 )	2	2
	2	2
	41	41
	16	16

**References**

, & , . (1 ). *Perception & Psychophysics*, 59, 105–106. [10.3758/BF03205520](#)  
(2006).  
*Journal of Research in Reading*, 29, 31–333.

**Appendix**

I

&3(( ( ) 1( )13 ( ) 2

... & ... (200 ).  
*Biological Psychology*, 80, 4- 4.  
 ... & ... (2013).  
*Journal of Memory and Language*, 68, 255-2  
 ... & ... (2013). 4  
 4 ( 0. -4).  
 / 4 //  
 & ... (2005).  
 ... & ... (2012). 400  
*NeuroImage*, 63, 1334-1342.  
 ... & ... (2010).  
 ... *PLoS ONE*,  
 5( 10 2 ), 1- 10.13 1/ . .0010 2  
 (1 ). *Applied*  
*Acoustics*, 5, 1-6.  
 ... (1 ). *A grammar of spoken Chinese*.  
 ... & ... (2001).  
 ... *Acta Psychologica Sinica*, 33, 1-6.  
 ... & ... (2006).  
*Phonetica*, 63, 4 - 5.  
 ... & ... (2001).  
*Psychological Review*, 108, 204-256. 10.103 /  
 0033-2 5 .10 .1204  
 ... & I ... (2010). *Journal of*  
*Experimental Psychology: Learning, Memory, and Cognition*, 36,  
 45 -4 0.  
 ... & ... (2005). I.  
*Psychological Review*, 112, - 13. 10.103 /0033-2 5 .112.  
 4.  
 ... & ... (2005).  
*Psychophysiology*, 42, 133-141.  
 ... & ... (2011).I  
 ... *PLoS ONE*, 6, 25 2. 10.13 1/  
 .0025 2  
 (1 3). *The modularity of mind: An essay on faculty*  
*psychology*. I  
 ... (2012). *Behavioral*  
*and Brain Sciences*, 35, 310-32 .  
 (1 ).  
*Psychological Bulletin*,  
 123, 1- .  
 ... & ... (2006).  
*Psychological*  
*Science*, 17, 1021-1026.  
 ... & ... (2014).  
 ... *Brain and Language*, 136, 1 -30.  
 ... & ... (2006).  
 ... *Journal of Cognitive Neuroscience*, 18, 1631-  
 1643. 10.1162/ .2006.1 .10.1631  
 ... (2002).  
 I ... & ... ( ),

*Cognitive neuroscience studies of the Chinese language* ( . 12 -  
 142).  
 ... & ... (2010).  
*Brain*  
*Research*, 1344, 15 -1 2. 10.1016/ . .2010.05.005  
 ... & ... (200 ).  
 ... *Brain and*  
*Language*, 108, 56-66. 10.1016/ . .200 .0 .002  
 ... (2010).  
*Journal of Eye Movement Research*, 3(5), 5 1-1 .  
 / 13/5/5  
 ... & ... (2004).  
*Psychonomic Bulletin & Review*, 11, 320-325.  
 10.3 5 / . 031 65  
 I ... & ... (1 ).  
 ... ( ), *Eye guidance in reading and scene perception*  
 ( . 2 -54). I  
 ... & ... (200 ). 400. *Scholarpedia*, 4, 0.  
 ... & ... (2011).  
 400  
 ( ). *Annual Review of Psychology*, 62, 21-44 . 10.  
 1146/ . .0 300 .131123  
 ... & ... (2011). 400  
 ... *Psychophysiology*,  
 48(2), 1 6-1 6.  
 ... & ... (2010).  
 ... *Journal of Neurolinguistics*, 23, 10-2 .  
 10.1016/ . .200 .0 .003  
 ... & ... (1 0).  
*Dialect*, 3, 166-1 .  
 ... & ... (2002).  
*Journal*  
*of Experimental Psychology: Human Perception and Performance*,  
 28, 1213-122 . 10.103 /00 6-1523.2 6.1213  
 ... & ... (2002).  
*Perception & Psychophysics*, 64, 20 -21 .  
 ... & ... (2004).  
 ... *Journal of Experimental*  
*Psychology: Human Perception and Performance*, 30, 151-162.  
 10.103 /00 6-1523.30.1.151  
 ... & ... (2005).  
*Journal of Experimental Psychology: Human Perception and*  
*Performance*, 31, 130 -1314. 10.103 /00 6-1523.31.6.130  
 ... & ... (200 ).  
 ... *Psychophysiology*, 44, 506-521.  
 ... (2013). *Trends in Cognitive*  
*Sciences*, 17, 51 -524.  
 ... & ... (1 6).  
 ... *Annals of Neurology*,  
 19, 4 3-4 4.  
 ... (2003). *Scientific*  
*Studies of Reading*, 7, 3-24.  
 ... & ... (2005).  
 ... *Psychological Review*, 112, 43-5 . 10.103 /0033-  
 2 5 .112.1.43

..., & ... (1 ...).  
..., & ... ( ...),  
*Reading Chinese script: A cognitive analysis* ( ... 115–134).

... (2014).  
... ( ... 3.0.3).

..., & ... (200 ...).  
... *Journal of Memory and Language*, 57, 2 3–2 ... 10.1016/... .200...04.001  
..., & ... (200 ...).

... *Journal of Experimental Psychology: Human Perception and Performance*, 35, 1205–1220. ... 10.103 /\_Q015022

..., & ... (2006).  
... *Cognition*, 53, ...–145.  
... 10.1016/... .2006.01.002

... (1 ...).  
... *Psychological Bulletin*, 124, 3 2–422. ...  
10.103 /0033-2 0 .124.3.3 2

..., & ... (200 ...).  
... *Psychonomic Bulletin & Review*, 16, 1–21.  
... 10.3 5 / ... .16.1.1