COGNI
A Mult

C 35 (2011) 184 197
C © 2010 C , I . A .
I N: 0364-0213 /1551-6709
D I: 10.1111/ .1551-6709.2010.01140.

L A L - : E F L

H M , C ,b

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29 A 2009; f 2 J 2010; 3 J 2010

Abstract

b b - f f b . I ; b b - M 1 2. I b : b 1 b 1 2 ff f f b f f b .

Keywords: ; L ; M C ; b ; E

1. Introduction

f f ( ) . B f b f ? I , K (1989) : f f f f b

C b H M , M I f , . B 310, NL-6500 AH N , N . E- : . @ .

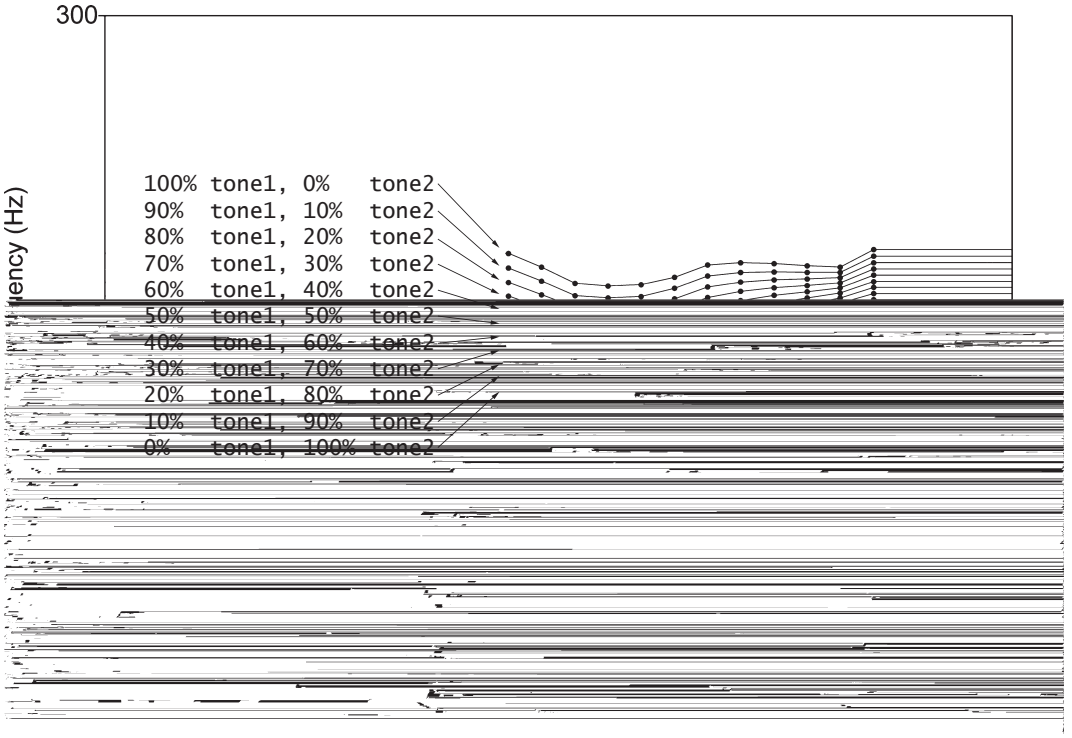
2. Method

2.1. Participants

E , 66 , 18 27. C, B .
F . H 1 2 2 1 40 . - 1 2 2 1 .

2.2. Stimuli

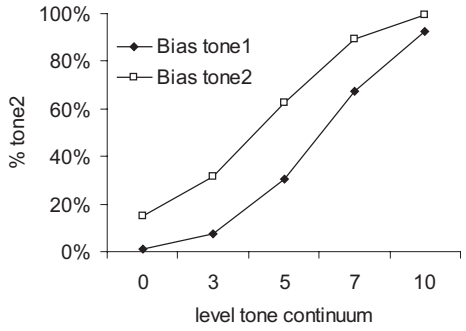
A C ta1 xie3 … zhe4 ge4 ci2 ‘‘….’’ 1 2 (., bo1 ‘‘ bo2 ‘‘) - (., du3 bo2 ‘‘ duan3 bo1 ‘‘). A 1 . 160 3 4, 1 2 - 1 2 1 2 25 AA (B , 2001). 1 2 - (10)11 (100% 1-0% 2, 90% 1-10% 2, … , 0% 1-100% 2). F . 1 - qin. - - -A (LA) , 1 11 f0 25 . F (A 2 F 2) . N



F . 1. ( ) f 1 ( ) 2 ( ) f ( ). ff f 1 2 f b .

f , ff f .

F , ff f , (ta1 xie3 … zhe4 ge4 ci2 …''), b , (ta1 shuo1 … zhe4ge4ci2'' …''). E f , f



F . 2. M f 2 b .
b

b b b f f 1 2
f , b . J f , , 11-
b b f f 80% 1 20% 2,
60% 1 40% 2, 50% 1 50% 2, 40% 1 60% 2, 20% 1 80%
2 , . A
f b , b (N ., 2003, f f ,).
F b , 2AFC , ,
b C, , , f
50 × 50 f 189 × 113 .

2.3. Apparatus and procedure

C. b
MA LAB b (2.54) (B , 1997).
f f
200
(f , :)
b f
600 f f 1.5 f
ff . Af - , 400- b f
.
b 1 ff f f
f 45 1 2 , 55 3 4
. F , 90 1 2 , 40
b f .
. H f f 1 b

N b 1 f f ff ;

	G 1 (1 B)			G 2 (2 B)		
f L		N	A b		N	A b
1		25	20	20	25	
2	20	25			25	20
3	30	25		30	25	
4	30	25		30	25	
	80	100	20	80	100	20

Note. f f f

1 2 b b 1 f 2 . I 110 3- 4b - 60 b b f - '' b '' . 200 f !! ff !! f , 10 . I , b f 1 2 f f (ta1 xie3/shuo1 … zhe4ge4ci2'' / …''), b b !! 1 2 f b , f b bo bo1 bo2 0.2 f f - f 5 f f f . C f . D 40 b (20 20) , f f0 f (3, 5, 6, 7, 9 f 1 2 ;). A ff f .

2.4. Design and analysis

F b - b f b 1 2 . b - b b E , b 1 2 . F b - b b : E (1 b 2 b) C (ff). - b b ( ) ( ) ( ) b . b b 1 2. b 1 b b

1. : E G × C (E), E G /N , E G N ,
- b /N , b
4 (B , D , & B , 2008). F b , (/), b f (J , 2008).

3. Results

3.1. Exposure

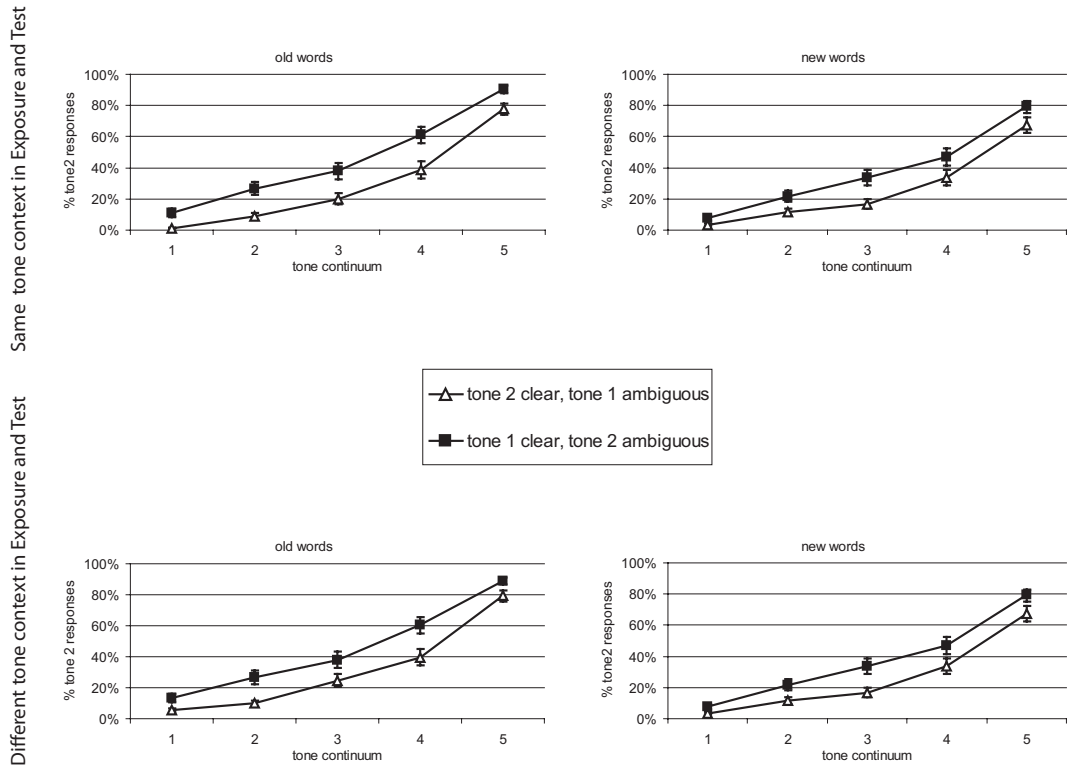
f , 99%
I , , (2) b
f 2 . b 2 , ( ) f ff , 78
b f ff . A f , f E -
C b (b b = −39, $p < .05$, b f
f b) f
(b = −0.66, $p < .001$). N ff .

3.2. Test

F . 3 , f , , 2, f (., ,) f f , f L E , f (, , f b H ,). I , ff f : b f 2 2

A b 2 b

	E C	
	1 C 2	2 C 1
%	A b	A b
1	97.5%	95.1%
	389	405
2	98.4%	97.5%
	427	404



F . 3. M f 2 , f E , f f 1 2 . C b , , b - f b b .

1 . F f , F . 4 ff f F . 3. I ff 2 b 2 b 1. A b . f ff (p < .01). f 2 , ( ) 2 2- . 2 , ff f b , 36.0% 2 f 38.7% , f f - . I ff f b 2 2 (44.2%) (31.1%) b 1 ff

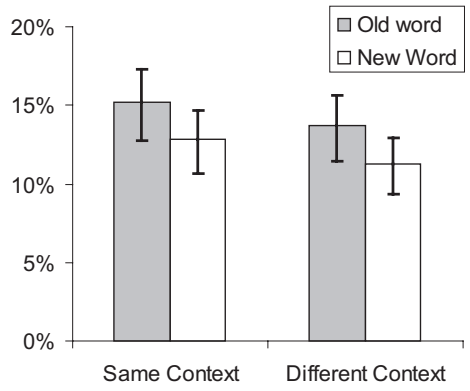


Fig. 4. L ff f ff 2 b
. Eff b f ( )
C × /N b f b
b b .

(15.0% f . 10.8% f, b).
ff (11.8%)
(14.4%, b p < .05).
f C E C (p > .2).

4. Discussion

b f -
b -
. A (E & M , 2005, 2006; K & , 2005, 2006; L & L , 2007; M ., 2006; N ., 2003), . E b
b b f . F ,
b ff f b b b b
f f b
f f b
,, (f , & K , 2009) b b f
f
b f b . L f ,
f b ff ,
f f , ff f
f ,
b b

Acknowledgments

L N - (N - IDI 016084338) E C (E C- I G 206198)

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Supporting Information

Appendix S1: E .

Appendix S2: .