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Abstract

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Keywords: A; E (E); G; H; ;

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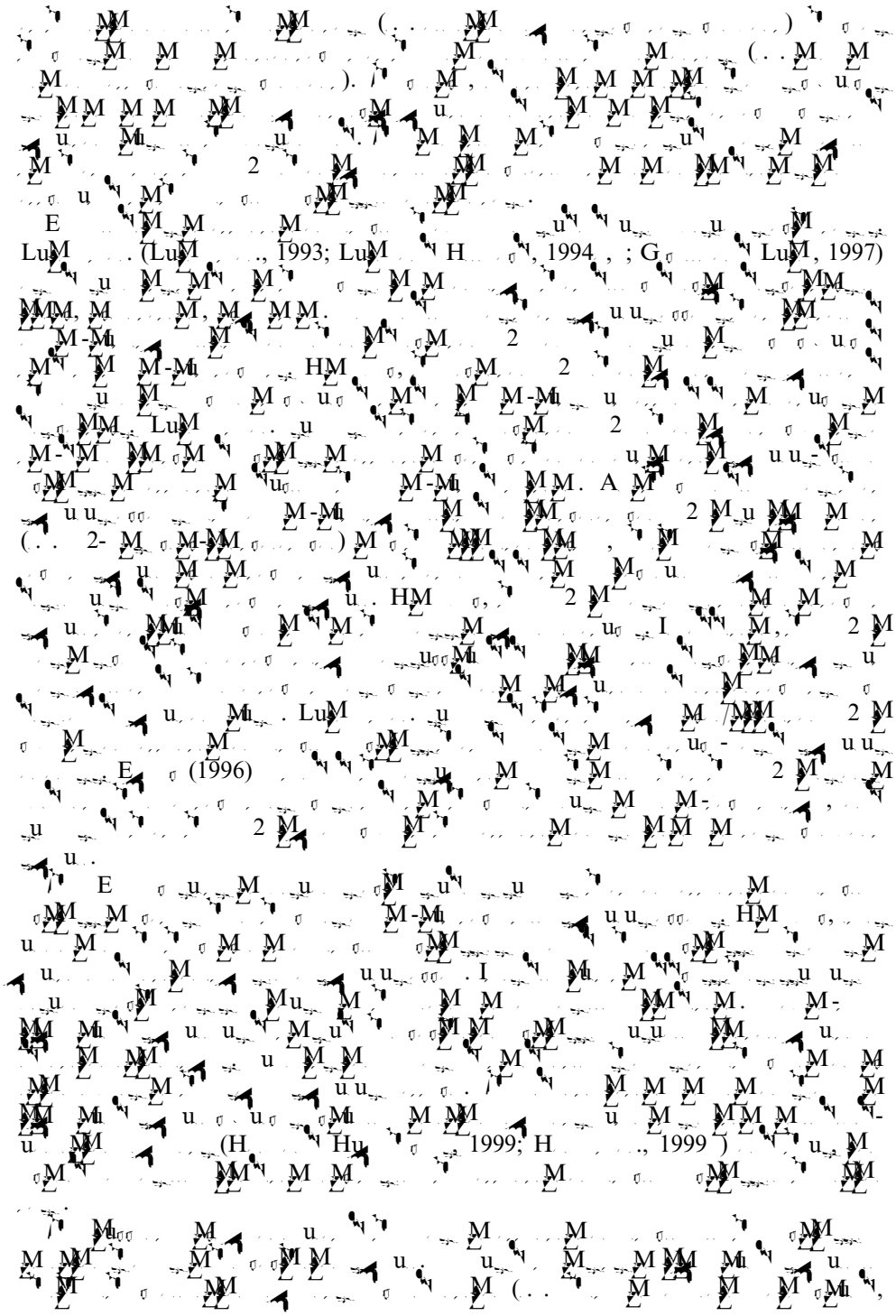
1. Introduction

[illegible]



2. Methods

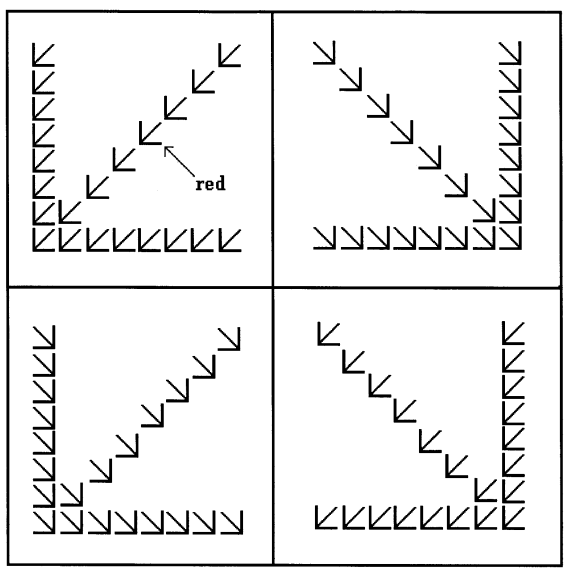
2.1. Subjects

2.2. Stimuli

[illegible]

2.3. Procedure

[illegible]



F . 1. I [illegible]

[illegible]

2.4. ERP recording and analysis

EEG [illegible] 10/20 [illegible] F 1, F 2, F3, F4, F7, F8, [illegible] 3, [illegible] 4, C3, C4, [illegible] 5, [illegible] 6, [illegible] 3, [illegible] 4, [illegible] 1, [illegible] 2, Fz, Cz, [illegible] z, [illegible] 10 [illegible] 10/20 [illegible] FC1/2 [illegible] Cz [illegible] F3/4, C [illegible] 1/2 [illegible] z [illegible] C3/4. A [illegible] 1 [illegible] 1 [illegible] 3 [illegible] 5, [illegible] 2 [illegible] ; [illegible] (I 3)

[illegible] 1
[illegible]

	[illegible]	[illegible]	[illegible]
1	80 140	90 130	[illegible] 5, [illegible] 6, 3, 4, [illegible] 1, [illegible] 2, 1, 2, I 3, I 4
1	130 210	150 200	[illegible] 5, [illegible] 6, 3, 4, [illegible] 1, [illegible] 2, 1, 2, I 3, I 4
2	160 220	170 210	F3, F4, FC1, FC2, C3, C4
[illegible] 2	220 360	240 340	F3, F4, FC1, FC2, C3, C4
[illegible] 2			[illegible] 5, [illegible] 6, 3, 4, [illegible] 1, [illegible] 2, 1, 2, I 3, I 4
[illegible]	200 350	250 320	
[illegible] 3	200 350	230 300	C3, C4, 3, 4, [illegible] 5, [illegible] 6, 1, 2
Homogeneous stimuli			
[illegible]	300 700	310 430	
[illegible]	300 700	380 500	
Pop-out stimuli			
[illegible]	300 700	310 430	
[illegible]	300 700	370 490	

[illegible] 2
[illegible] (%) [illegible]

	[illegible]		[illegible]	
	[illegible]	[illegible]	[illegible]	[illegible]
Homogeneous stimuli (n = 14)				
[illegible]	377	379	425	459
[illegible]	6.5	6.3	8.9	16.8
Pop-out stimuli (n = 20)				
[illegible]	375	384	440	465
[illegible]	1.2	1.8	1.5	2.6

3. Results

3.1. Behavioral performance

[illegible] 2. [illegible] $F(1,32) = 123.7$, $P < 0.0005$. I [illegible] u [illegible] - [illegible] $F(1,32) = 140.9$, $P < 0.0005$. [illegible] $F(1,32) = 32.0$, $P < 0.0005$. [illegible] u u [illegible] $F < 1$. H [illegible] × C [illegible] × u u [illegible] $F(1,32) = 3.93$, $P < 0.05$. u [illegible] M-M [illegible] u . [illegible] $F(1,13) = 70.4$, $P < 0.0005$. u [illegible] $F(1,13) = 1.25$, $P > 0.2$. F [illegible] M-M [illegible] u , [illegible] $F(1,19) = 5.73$, $P < 0.0005$, ($F(1,19) = 3.72$, $P < 0.002$, [illegible]

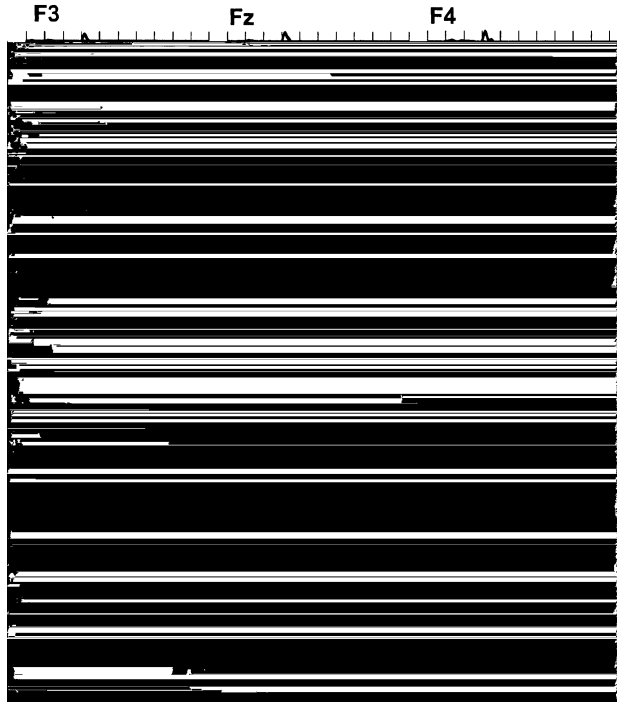
E [illegible] (6.5%) [illegible] (3.5%) [illegible] $F(1,32) = 141.0$, $P < 0.0005$. [illegible] $F(1,32) = 35.2$, $P < 0.0005$. [illegible] M-M u $F(1,32) = 126.7$, $P < 0.0005$. [illegible] × C [illegible] $F(1,32) = 12.3$, $P < 0.002$. [illegible] u u × G [illegible] $F(1,32) = 13.6$, $P < 0.001$. [illegible] M-M [illegible] × u u [illegible] $F(1,32) = 8.96$, $P < 0.005$. A [illegible] u [illegible] M-M u , [illegible] $F(1,13) = 20.4$, $P < 0.0005$. F [illegible] M-M u , [illegible] $F < 1$.

3.2. Electrophysiological data

E [illegible] u [illegible] - [illegible] u . [illegible] E [illegible] F 2 3. F [illegible] u , E [illegible] 1 80 140 1 130 200 [illegible] 2 200 350 A [illegible] E [illegible] 2 160 260 [illegible] 2 220 360. A [illegible] 3 300 700 [illegible] u [illegible] u .

3.2.1. P1 and N1

[illegible] 5 6: $F(1,32) = 15.40$, $P < 0.0005$; [illegible] 1 2: $F(1,32) = 15.28$, $P <$



F . 2. G E M M M M M M M M u .
GC, M MM ; GI, M MM , LC, M MM , LI, M MM .

0.0005; I 3 I 4: $F(1,32) = 19.25$, $P < 0.0005$; 3 4 ($F(1,32) = 10.56$, $P < 0.003$ / 1 M u MM M M MM M 1 / M M u u CM M, M M Mu MM M M $P > 0.05$ / A A M M M M 1 u M

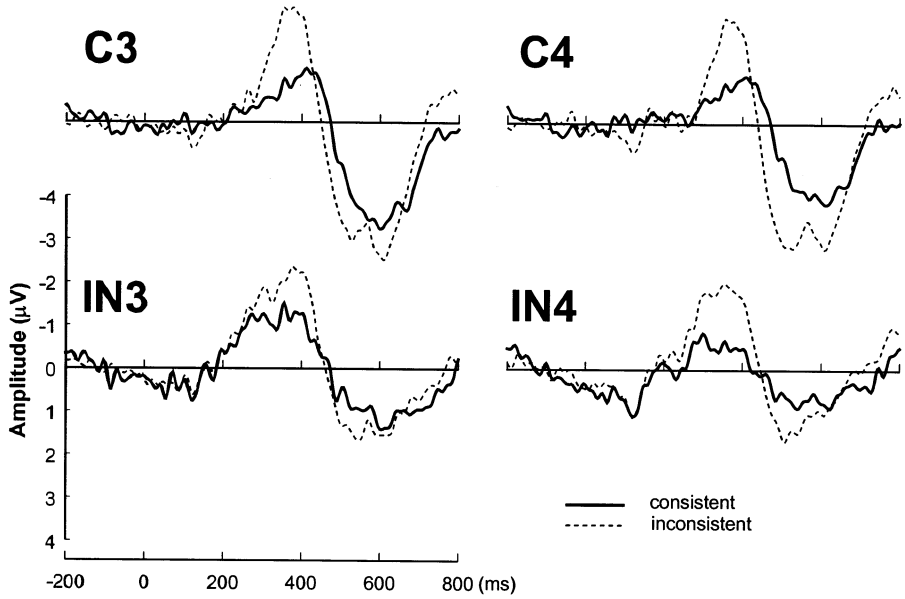
3.2.2. Frontal/central N2

/ u M M /M 2 MM M M MM M F3 F4: $F(1,32) = 18.16$, $P < 0.001$; FC1 FC2: $F(1,32) = 32.13$, $P < 0.001$; C3 C4: $F(1,32) = 36.68$, $P < 0.001$ I M, M M M u u × G M (F3 F4: $F(1,32) = 8.13$, $P < 0.007$; FC1 FC2: $F(1,32) = 8.66$, $P < 0.006$; C3 C4: $F(1,32) = 8.77$, $P < 0.006$ M M M M /M 2 M M M M-Mu M M Mu u . M u M M /

1 MM Mu M M 1 u M / MM MM M M M M Mu Mu ($P < 0.03$) u M M M-Mu Mu ($P > 0.1$), Mu M M M M Mu HM , M M M u u M M , M M MMu 1 M M Mu M u M

[illegible] 2 [illegible] $P > 0.1$ [illegible] F3 F4: $F(1,19) = 27.92$, $P < 0.001$; FC1 FC2: $F(1,19) = 43.76$, $P < 0.001$; C3 C4: $F(1,19) = 41.12$, $P < 0.001$ [illegible] 2 [illegible] G [illegible] × C [illegible] F3 F4: $F(1,32) = 8.43$, $P < 0.007$; FC1 FC2: $F(1,32) = 10.75$, $P < 0.003$; C3 C4: $F(1,32) = 9.96$, $P < 0.004$ [illegible] 2 [illegible] F3 F4: $F(1,32) = 8.15$, $P < 0.007$; FC1 FC2: $F(1,32) = 4.58$, $P < 0.04$; C3 C4: $F(1,32) = 7.69$, $P < 0.009$ [illegible] G [illegible] × C [illegible] FC1 FC2: $F(1,32) = 4.19$, $P < 0.05$; C3 C4: $F(1,32) = 4.70$, $P < 0.05$ [illegible] 2 [illegible] × G [illegible] F3 F4: $F(1,32) = 6.06$, $P < 0.02$ [illegible] × G [illegible] × C [illegible] F3 F4 $F(1,32) = 7.24$, $P < 0.01$ [illegible]

F [illegible] 3. G [illegible] E [illegible] GC, [illegible]; GI, [illegible], LC, [illegible], LI, [illegible].

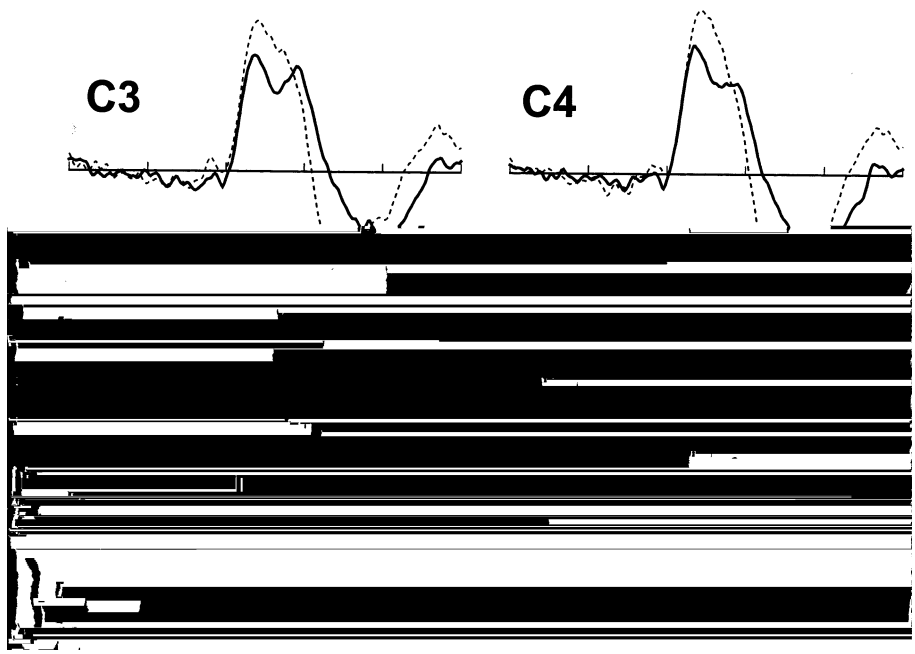


F . 4. D M M u E M MM M M E M M M M M M M u u M M M M M M M

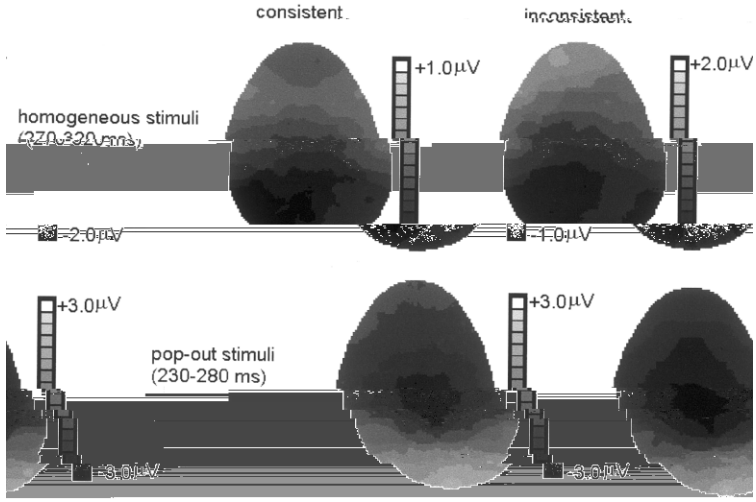
E u M M M M u (F 4 5). F . 6 u M M M M 2 M . M , M M M M u , M 2 M M u M M /MM (M , u M M M M). FM M-M u , M , u M M 2 M M M M /MM u M M M .

3.2.4. P2 and P3

2 M M M M M M F3 F4: $F(1,32) = 8.02$, $P < 0.008$; FC1 FC2: $F(1,32) = 4.57$, $P < 0.04$ M A A M 3 u M M 3. 3 u M M M M M M M M M M M u M M M M G M × CM M. 3 M M M M M M M u M M M M M u M M M G M × CM M - , u M M M 3 M M M M M M u u M M M M M M .



F . 5. D M M u M E M M M M E M M M M M M-M u u M M M M M M M M M M M



F . 6. M M u M M M M M M u M M M M M M 2 M .

4. Discussion

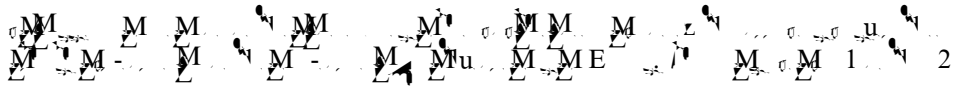
u E M M M M M M M u M M M M M M M M M M u M M M M M M u M M M M M M M M M M M M M M M M M M u . G M - M M M M E M

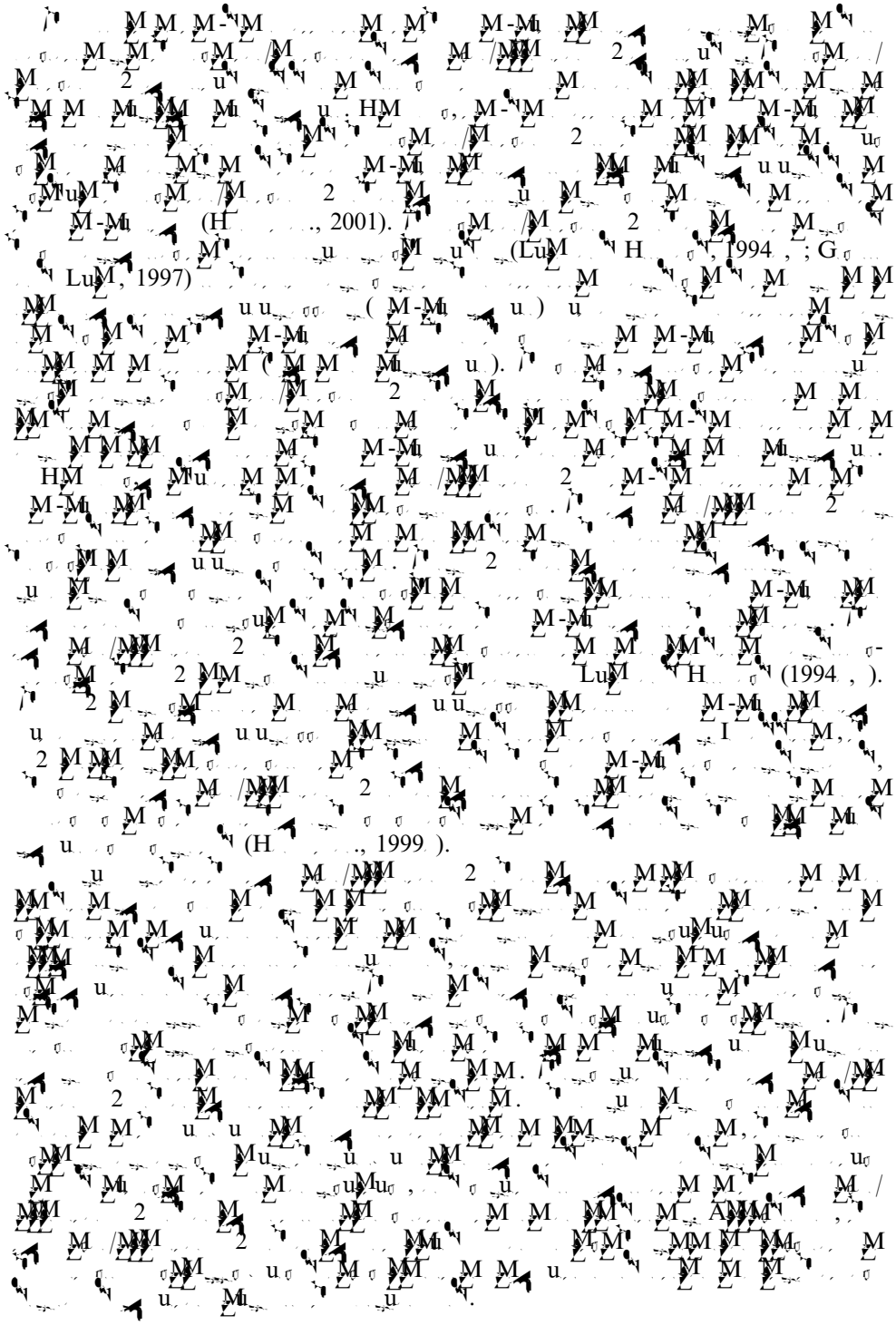
3

u M A A M 3 M M M M M M M - M

	G	C	G × C
P3 amplitudes			
C3 C4	0.002		0.003
3 4	0.001		0.003
5 6	0.001		0.017
1 2	0.001		0.002
P3 latencies			
C3 C4	0.001	0.001	0.001
3 4	0.001	0.002	0.001
5 6	0.001	0.001	0.001
1 2	0.001	0.001	0.001

G, G M ; C, CM M; G × C, G M × CM M.





Acknowledgements

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