Supporting Information

Wu et al. 10.1073/pnas.1104096108

Table S1. Event-related cortical and subcortical activations time-locked to detected (AWARE) and undetected (UNAWARE) deviant stimuli and direct subtraction using contrast

Brain area (Brodmann area)	*xyz*	*z* Score	*xyz*	*z* Score
Activations time-locked to detected and undetected deviant stimuli	AWARE		UNAWARE	
Right inferior frontal gyrus (47)	36 18 −3	6.30	45 18 −9	4.88
Right insula (13/22)	48 5 1	4.47	48 6 0	5.15
Left insula/inferior frontal gyrus (47/13)	−39 15 −6	6.55	−39 9 0	6.13
Right insula/claustrum	36 −18 −3	6.30	36 −21 3	4.38
Left insula/claustrum	−36 −24 −3	4.30	—	—
Right superior temporal gyrus (22)	54 −39 12	6.10	54 −36 12	4.42
Left superior temporal gyrus (22)	−48 −24 9	3.48	−51 −27 9	3.71
Right middle temporal gyrus (37)	45 −48 −3	6.02	—	—
Right middle temporal gyrus (21/20)	60 −36 −15	4.34	—	—
Left middle temporal gyrus (37)	−39 −60 0	5.24	−48 −54 0	3.15
Left middle occipital gyrus (18/19)	36 −93 0	3.55	—	—
Right cuneus (18)	15 −78 15	4.91	—	—
Right cuneus/lingual gyrus (17)	18 −87 3	5.24	15 −90 0	5.91
Left cuneus/lingual gyrus (17/18)	—	—	−12 −90 −3	6.89
Right thalamus	6 −18 9	4.67	15 −15 9	3.59
Left thalamus	−9 −9 6	5.12	−12 −9 6	4.36
Left lentiform nucleus	—	—	−21 −6 0	4.54
Right caudate	24 −36 12	4.37	—	—
Direct subtraction using contrast	[AWARE − UNAWARE]		[UNAWARE − AWARE]	
Right middle temporal gyrus (37)	45 −48 −3	3.33	—	—
Right anterior cingulate (32/11)	—	—	6 30 −9	3.41
Left precuneus	—	—	−6 −75 21	3.37

Table S2. Behavioral performance of subjects (n = 17) during scanning

	Anisochronous sequences (n = 72)							Isochronous sequences (n = 24)	
	Order of deviant stimulus within sequence				Delay before response, s				
Subject	Fifth	Sixth	Seventh	Fifth + Sixth + Seventh	2	4	Missed	No. (%)	Missed
1*	9 (45.00)/11 (55.00)	13 (65.00)/7 (35.00)	13 (61.90)/8 (38.10)	35 (57.38)/26 (42.62)	16 (57.14)/12 (42.86)	19 (57.58)/14 (42.42)	11	2 (10.00)/18 (90.00)	4
2	15 (62.50)/9 (37.50)	16 (66.67)/8 (33.33)	10 (41.67)/14 (58.33)	41 (56.94)/31 (43.06)	22 (59.46)/15 (40.54)	19 (54.29)/16 (45.71)	0	2 (8.33)/22 (91.67)	0
3	17 (70.83)/7 (29.17)	13 (54.17)/11 (45.83)	8 (33.33)/16 (66.67)	35 (48.61)/37 (51.39)	19 (48.72)/20 (51.28)	16 (48.48)/17 (51.52)	0	2 (8.33)/22 (91.67)	0
4	12 (50.00)/12 (50.50)	16 (66.67)/8 (33.33)	11 (45.83)/13 (54.17)	38 (52.78)/34 (47.22)	19 (51.35)/18 (48.65)	19 (54.29)/16 (45.71)	0	1 (4.17)/23 (95.83)	0
5†	11 (45.83)/13 (54.17)	15 (62.50)/9 (37.50)	5 (20.83)/19 (79.17)	31 (43.06)/41 (56.94)	14 (42.42)/19 (57.58)	17 (43.59)/22 (56.41)	0	2 (8.33)/22 (91.67)	0
6†	15 (62.50)/9 (37.50)	13 (54.17)/11 (45.83)	15 (62.50)/9 (37.50)	43 (59.72)/29 (40.28)	23 (63.89)/13 (36.11)	20 (55.56)/16 (44.44)	0	3 (12.50)/21 (87.50)	0
7	13 (54.17)/11 (45.83)	11 (45.83)/13 (54.17)	11 (45.83)/13 (54.17)	35 (48.61)/37 (51.39)	17 (45.95)/20 (54.05)	18 (51.43)/17 (48.57)	0	2 (8.33)/22 (91.67)	0
8	14 (58.33)/10 (41.67)	11 (45.83)/13 (54.17)	10 (41.67)/14 (58.33)	35 (48.61)/37 (51.39)	19 (51.35)/18 (48.65)	16 (45.71)/19 (54.29)	0	1 (4.17)/23 (95.83)	0
9	13 (56.52)/10 (43.48)	14 (58.33)/10 (41.67)	4 (16.67)/20 (83.33)	35 (48.61)/37 (51.39)	18 (51.43)/17 (48.57)	17 (45.95)/20 (54.05)	1	2 (8.33)/22 (91.67)	0
10	11 (45.83)/13 (54.17)	14 (60.87)/9 (39.13)	6 (26.09)/17 (73.91)	31 (44.29)/39 (55.71)	15 (44.12)/19 (55.88)	16 (44.44)/20 (55.56)	2	1 (4.17)/23 (95.83)	0
11	8 (33.33)/16 (66.67)	8 (33.33)/16 (66.67)	18 (75.00)/6 (25.00)	34 (47.22)/38 (52.78)	19 (51.35)/18 (48.65)	15 (42.86)/20 (57.14)	0	0 (0.00)/24 (100.00)	0
12	9 (37.50)/15 (62.50)	11 (45.83)/13 (54.17)	17 (73.91)/6 (26.09)	37 (52.11)/34 (47.89)	16 (48.48)/17 (51.52)	21 (55.26)/17 (44.74)	1	1 (4.17)/23 (95.83)	0
13	11 (45.83)/13 (54.17)	11 (47.83)/12 (52.17)	9 (40.91)/13 (59.09)	31 (44.93)/38 (55.07)	17 (48.57)/18 (51.43)	14 (41.18)/20 (58.82)	3	0 (0.00)/22 (100.00)	2
14	11 (45.83)/13 (54.17)	14 (58.33)/10 (41.67)	15 (62.50)/9 (37.50)	40 (55.56)/32 (44.44)	20 (57.14)/15 (42.86)	20 (54.05)/17 (45.95)	0	2 (8.33)/22 (91.67)	0
15*	10 (41.67)/14 (58.33)	12 (50.00)/12 (50.00)	13 (54.17)/11 (45.83)	35 (48.61)/37 (51.39)	17 (45.95)/20 (54.05)	18 (51.43)/17 (48.57)	0	2 (8.33)/22 (91.67)	0
16	8 (38.10)/13 (61.90)	10 (45.45)/12 (54.55)	12 (52.17)/11 (47.83)	30 (45.45)/36 (54.55)	16 (45.71)/19 (54.29)	14 (45.16)/17 (54.84)	6	1 (4.17)/23 (95.83)	0
17†	11 (45.83)/13 (54.17)	20 (83.33)/4 (16.67)	12 (50.00)/12 (50.00)	43 (59.72)/29 (40.28)	20 (60.61)/13 (39.39)	23 (58.97)/16 (41.03)	0	1 (4.17)/23 (95.83)	0
Mean ± SD	11.65 ± 2.57 (49.39 ± 10.08)/ 11.88 ± 2.34 (50.61 ± 10.08)	13.06 ± 2.79 (55.54 ± 11.66)/ 10.47 ± 2.83 (44.46)±11.66)	11.12 ± 3.97 (47.35 ± 17.00)/ 12.41 ± 4.11 (52.65 ± 17.00)	35.82 ± 4.07 (50.72 ± 5.42)/ 34.82 ± 4.11 (49.28 ± 5.42)	18.06 ± 2.41 (51.39 ± 6.23)/ 17.12 ± 2.30 (48.61 ± 6.23)	17.76 ± 2.49 (50.01 ± 5.67)/ 17.71 ± 2.08 (49.99 ± 5.67)	1.41 ± 2.94	1.47 ± 0.80 (6.23 ± 3.42)/ 22.18 ± 1.29 (93.77 ± 3.42)	0.35 ± 1.06

Number (%) of anisochronous sequences reported as anisochronous/isochronous based on whether the subjects detected the change in the timing of one deviant stimulus that occurred as the fifth, sixth, or seventh stimulus within the anisochronous sequences. After the conclusion of each sequence, a delay of 2 or 4 seconds was introduced before the visual cue to respond. Number of isochronous sequences (with no deviant stimuli) reported as anisochronous/isochronousin "catch" trials (n = 24). Missed trials are trials in which the subjects failed to response within 2 s after onset of visual cue.

*Shift of ISI preceding deviant stimulus was 250 ms instead of 200 ms.

†Shift of ISI preceding deviant stimulus was 150 ms instead of 200 ms.