

Table 2. Pupil dilation – peak times for individual subjects and stimuli

	AR		BF		DY		GM		IF		MM		ALL	
	t _{peak}	p _{peak}	t _{peak}	p _{peak}	t _{peak}	p _{peak}	t _{peak}	p _{peak}	t _{peak}	p _{peak}	t _{peak}	p _{peak}	t _{peak}	p _{peak}
Plaid	641	.0005 (.002)	911	.017 (-)	-2496	.157 (-)	580	3x10 ⁻⁴ (.006)	2907	.145 (.009)	666	2x10 ⁻⁵ (.006)	642	8x10 ⁻⁸ (.009)
Necker	-438	.026 (-)	1002	.006 (-)	620	6x10 ⁻⁵ (.005)	464	.007 (-)	-2661	.519 (-)	818	.026 (-)	519	3x10 ⁻⁷ (.014)
SfM	895	3x10 ⁻⁷ (.025)	558	9x10 ⁻⁵ (.036)	1706	.038 (-)	1197	.621 (-)	2985	n/a (-)	1177	.059 (-)	895	5x10 ⁻¹¹ (.028)
Auditory	501	.005 (-)	571	.019 (-)	441	.259 (-)	2501	.860 (-)	594	.007 (-)	408	.132 (-)	439	0.012 (-)
ALL	482	3x10 ⁻⁸ (.021)	918	1x10 ⁻⁹ (.008)	432	7x10 ⁻⁵ (.006)	488	.006 (.006)	2917	.221 (-)	722	6x10 ⁻⁷ (.011)	602	1x10 ⁻¹⁸ (.019)

Peak times (milliseconds relative to button press) for individual subjects (rows) and stimuli types (columns), experiment 1, immediate report. Significance is assessed by a t-test, testing whether the mean value of pupil diameter at the peak time-point is significantly different from 0, where 0 denotes the mean pupil diameter across the whole 5-minute block. As adjustment for multiple comparisons, the p-value threshold for an expected false discovery rate (FDR) of 0.05 (with respect to ± 3 s around the switch) is given in parenthesis for each analysis. Significant peaks according to this criterion marked in bold. A (-) implies that all p-values are above threshold. Note that most p-values for pooled data (bottom row / right column) would even withstand the stricter (overly conservative) Bonferroni correction (Bonferroni-adjusted alpha: $0.05/6001=8.3 \times 10^{-6}$). 17/24 sessions have their peak in the 1s interval around 750ms, compared to the 1/6 expected at random for this subset of the analyzed 6s interval. This further supports the consistency in the pattern of pupil dilation (cf. SI Fig. 4) and shows that the time-course of pupil dilation relative to perceptual switching is robust and consistent across subjects and stimuli.