Supplementary materials
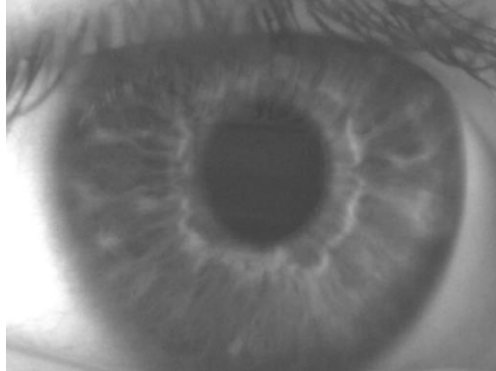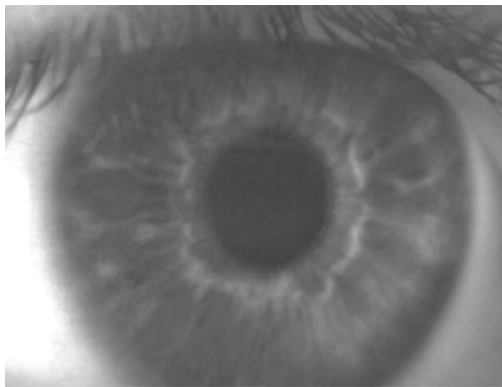

Supplementary Video S1. Recording of iris and pupil during on- and off-set of sound stimulus.

Supplementary Video S2. Recording of iris and pupil during on- and off-set of light stimulus.
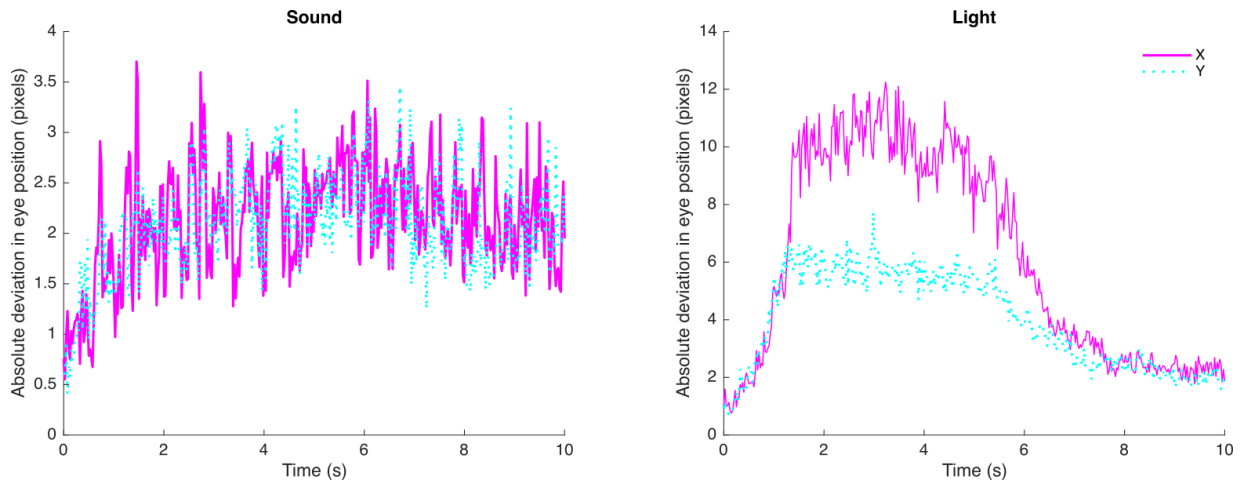
Title: Irissometry: tracking iris features; Authors: C. Strauch & M. Naber

Supplementary Table S1. Results of post-hoc t-test comparisons on relative pupil size compared to baseline at $t = 0$s per sound and light stimulation across time after stimulus onset. The *p*-values correspond to the significance symbols in the main article's Fig. 2.

Time from stimulus onset	Sound (*t*-value, *p*-value)	Light (*t*-value, *p*-value)
1s	7.55, <0.001	1.42, 0.170
2s	7.24, <0.001	5.19, <0.001
3s	6.38, <0.001	4.41, <0.001
4s	6.22, <0.001	4.46, <0.001
5s	7.15, <0.001	4.92, <0.001
6s	3.44, 0.002	7.15, <0.001
7s	0.84, 0.408	6.27, <0.001
8s	5.71, <0.001	4.70, <0.001
9s	4.71, <0.001	3.07, 0.006
10s	6.49, <0.001	1.46, 0.159

Supplementary Table S2. Results of post-hoc t-test comparisons on feature spacing between a dilated and constricted pupil state per sound and light stimulation across annulus eccentricities. The *p*-values correspond to the significance symbols in the main article's Fig. 3c.

Annulus eccentricity	Sound (*t*-value, *p*-value)	Light (*t*-value, *p*-value)
5%	7.68, <0.001	11.64, <0.001
15%	5.92, <0.001	6.48, <0.001
25%	4.60, <0.001	5.54, <0.001
35%	8.09, <0.001	4.02, 0.001
45%	3.31, 0.006	4.37, <0.001
55%	1.88, 0.082	3.36, 0.004
65%	4.47, <0.001	2.13, 0.049
75%	3.27, 0.006	4.24, <0.001
85%	3.04, 0.010	3.66, 0.002
95%	0.23, 0.820	2.16, 0.047

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Supplementary Figure S1. Deviation of horizontal (x; solid) and vertical (y; dotted) eye position signal in pixels based on pupil border across time during a pupil response evoked by a sound (left) or light (right) onset.

Supplementary Table S3. Results of post-hoc t-test comparisons on standard deviations of eye position (X = horizontal, Y = vertical) traces during pupil responses between feature locations.

Feature location	Inner iris – X (*t*-value, *p*-value)	Pupil border - X (*t*-value, *p*-value)
Outer iris - X	2.36, 0.027	0.02, 0.987
Inner iris - X		2.34, 0.029

	Inner iris – Y (*t*-value, *p*-value)	Pupil border – Y (*t*-value, *p*-value)
Outer iris - Y	1.62, 0.120	2.91, 0.008
Inner iris - Y		1.98, 0.061

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