

Electronic Supplementary Material

Word	Type (Freq)	Homophone (Freq)	Total Freq
So	Qualifier (932) Adverb (574) Conjunction (479)	Sew (6)	1991
Do	Verb (1350)		1350
My	Pronoun (1366)		1366
We	Pronoun (2654)	Wee (3)	2657

Supplementary Table 1: Word types and frequency of words used as oddball stimuli during the task (word frequencies taken from Francis et al., 1982).

Aversive Audio-Visual stimuli						Neutral Audio-Visual stimuli							
Image_Desc	IAPS_Nbr	Valence	Arousal	Speech	Words	Syllables	Image_Desc	IAPS_Nbr	Valence	Arousal	Speech	Words	Syllables
Mutilation	3071	1.88	6.86	Throat wounds sever crucial arteries	5	9	Satellite	5471	5.21	3.26	Satellites are used for communication	5	11
Mutilation	3051	2.3	5.62	People are sometimes attacked for no reason	7	11	Outlet	6150	5.08	3.22	Electrical sockets are commonplace	4	10
DeadBody	3120	1.56	6.84	Some people have died during surgery	6	10	RollingPin	7000	5	2.42	Rolling pins are used to flatten dough	8	9
Mutilation	3225	1.82	5.95	Disfigurement is usually permanent	5	11	Bowl	7006	4.88	2.33	People have breakfast in the mornings	6	9
Mutilation	3000	1.59	7.34	Physical attacks often target the face	6	11	Mug	7009	4.93	3.01	mugs are used to hold beverages	6	8
Mutilation	3010	1.71	7.18	Gun shot wounds are often fatal	6	8	Iron	7030	4.69	2.99	some clothes require ironing	4	6
Dirty	9300	2.26	6	Untreated Faeces can harbour disease	5	10	Shoes	7038	4.82	3.01	Walking boots are heavier than shoes	7	9
Toilet	9301	2.26	5.28	Diahorrea is extremely unpleasant	4	11	HairDryer	7050	4.93	2.75	hairdryers can be noisy	4	7
SlicedHand	9405	1.83	6.08	open wounds can become infected	5	9	Candlestick	7053	5.22	2.95	Glass objects are usually breakable	5	10
Cat	9571	1.96	5.64	Many pets are killed on the road	7	8	Lightbulb	7055	4.9	3.02	There are different types of lightbulb	6	9
Tumor	3261	1.82	5.75	Cancerous tumours can be deadly	5	9	Fork	7080	5.27	2.32	Cutlery is used to eat food	6	8
Mutilation	3064	1.45	6.41	Millions have died in civil wars	6	9	Truck	7130	4.77	3.35	Lorries are used to transport cargo	6	10
Mutilation	3150	2.26	6.55	Fingers are often lost in accidents	6	10	Lamp	7175	4.87	1.72	Most lamps are powered by electricity	6	11
Mutilation	3069	1.7	7.03	The skull is fragile to trauma	6	8	Bed	7710	5.42	3.44	Pillows support the head during sleep	6	9
Accident	3015	1.52	5.9	Many have died in Traffic accidents	6	10	Plate	7233	5.09	2.77	Plates are often decorated with patterns	6	11
Mutilation	3080	1.48	7.22	Often injured people cannot be saved	6	10	Bridge	7547	5.21	3.18	Bridges can be used to cross rivers	7	9
Injury	3550	2.54	5.92	Blood loss can cause people to panic	7	9	Book	7090	5.19	2.61	Books can have hard or soft covers	6	8
EyeDisease	3160	2.63	5.35	Eyes can easily become infected	5	10	Window	7490	5.52	2.42	Exterior walls can be painted	5	9
DeadCows	9181	2.26	5.39	many animals starve to death	5	8	Flowers	5731	5.39	2.74	Gardening is a common pasttime	5	9
CryingBoy	2900	2.45	5.09	children find funerals traumatic	4	9	Rug	7179	5.06	2.88	Carpets are often made from nylon	6	9
DisabledChild	3300	2.74	4.55	Some children are born with disabilities	6	11	Shipyard	7036	4.88	3.32	Goods are regularly transported by ship	6	11
Attack	6370	2.7	6.44	Violent Criminals often mask their faces	6	11	Towel	7002	4.97	3.16	Towels are designed to be absorbant	6	10
StickThruLip	9042	3.15	5.78	Large incisions to the lip are painful	7	10	Chess	2840	4.91	2.43	A chess board has sixty four squares	7	8
Mutilation	3168	1.56	6	The face is vulnerable to disfigurement	6	12	Mushroom	5520	5.33	2.95	Mushrooms are a type of fungus.	6	8
Mutilation	3016	1.9	5.82	Violent attacks can occur during the day	7	11	Rain	9210	4.53	3.08	Frequent rain is vital for life on earth	8	10
Toenail	N/A	N/A	N/A	Toenails can separate from the skin	6	9	Spoon	7004	5.04	2	Spoons are used for the consumption of food	7	10
Puss	N/A	N/A	N/A	Pus is the result of infection	7	9	Chair	7235	4.96	2.83	A Chair normally has four legs	6	8
Toe Stitches	N/A	N/A	N/A	Blood often clots around stitches	5	7	Factoryworker	2393	4.87	2.93	Many people are employed in factories	6	11
Sliced Foot	N/A	N/A	N/A	Cuts to the sole are difficult to repair	8	11	Tourist	2850	5.22	3	Many economies rely on tourism.	6	12
Skull wound	N/A	N/A	N/A	The skull can easily be penetrated	6	9	Plant	5740	5.21	2.59	Plants grow in a variety of locations	7	12

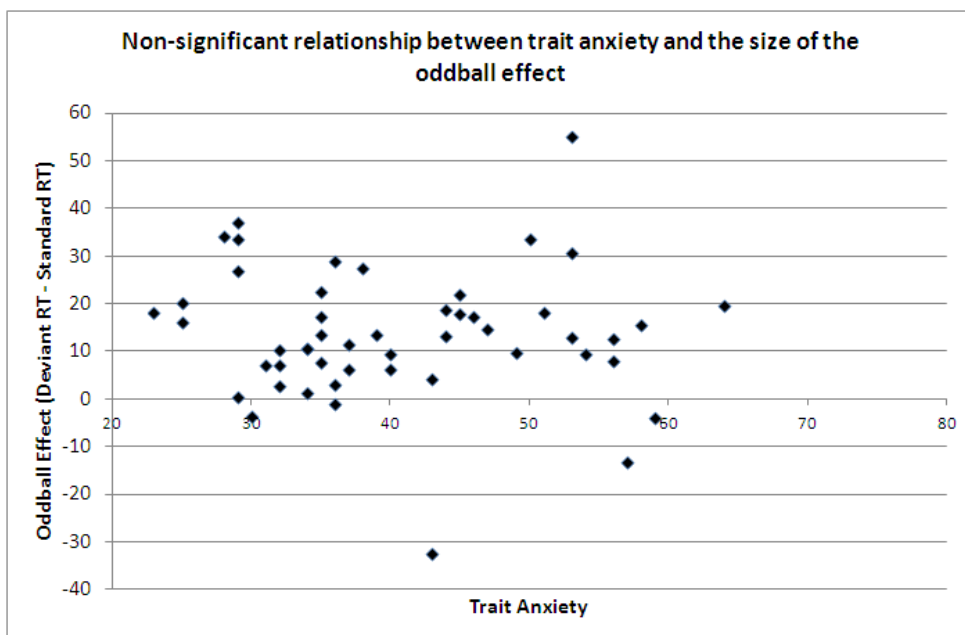
Supplementary Table 2: Details of images and speech stimuli used for the audio-visual stimulus within the study. The speech stimuli did not differ in terms of duration, words or syllables between the two conditions. Valence and Arousal ratings for IAPS images come from Lang et al. (2008)

SCR Data Collection and Analysis

The SCR equipment was built by the Medical Physics Department, University of Sheffield, based on configuration detailed in Shastri et al. (2001). Responses were collected using Ag / AgCl electrodes (8mm diameter) attached to the medial phalange of the index and middle fingers of the participant's non-response hand. The resulting data (sampled at 20Hz) was analysed using Ledalab V3.4.1 (www.ledalab.de). The raw SCR data were first smoothed via convolution with a Hann window. The data was subsequently fitted to a bi-exponential Bateman function and optimised using a conjugated

gradient descent algorithm. This pre-processed SCR data was decomposed into its phasic and tonic components using continuous decomposition analysis (Benedek & Kaernbach, 2010). Two indices of SCR were retrieved from this analysis; an area measure of the phasic SCR response, and a count of the number of individual skin conductance responses (SCRs). Individual responses were identified as those with an amplitude of at least $0.05\mu\text{S}$, a threshold which is commonly used when analysing SCR data (e.g., Alexander et al., 2005).

Phasic and count (nbr of SCRs) measures were calculated the entire duration of each block (105s) excluding the periods at the end of each block during which the recognition tests and the rating scale were administered. This time frame was used because what was of interest was not the response to the individual images per se, but the arousal levels throughout the entire period in which the task was being performed.



Supplementary Figure 1: Scatter graph showing the non-significant relationship between the Trait Anxiety of the participant and the size of the oddball effect (reaction time to deviant trials – reaction time to standard trials).

References

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