



*Figure S2.* Likelihood that the sound conveys an object bouncing as a function of  $III_o$ . Each of the sounds have the same value of  $\tau$  (5), and the same number of impulses (6).  $III_o$  is the only parameter that is changing between the sounds. A rating of 10 corresponds to the sound being extremely likely to have conveyed an object bouncing, and a rating of 0 corresponds to the sound being not at all likely to have conveyed an object bouncing. Standard error of the mean is reflected by the error bars.