

### **Supplemental material: Analyses of parents' behavior**

Parents' gaze and hand contact data were coded in the same way as those from the children. In the following sections, we report the analyses of parents' hand contact, visual attention and hand-eye coordination patterns. In all of these analyses, we did not find evidence suggesting a significant difference in parents' behaviors between the heavy-object condition and the light-object condition. Therefore, the different patterns in children's behaviors between the two conditions were not likely due to differences in their parents' behaviors, but were rather driven by the experimental manipulation on the weights of objects.

#### **Hand contact**

A Linear mixed-effect regression model was conducted using the lme4 package in R (Version 3.0.1; Bates, Mächler, Bolker, & Walker, 2014); p values for regression coefficients were obtained using the car package (Fox & Weinberg, 2011). We calculated the proportion of all hand contacts that fell at two duration categories—very brief durations (the head of the right-skewed distributions; less than 1 second) and substantially longer durations (the tail of the distribution; more than 3 seconds). Condition (heavy objects vs. light objects) and event type (brief vs. sustained) were submitted as fixed effects and subject was submitted as a random effect. There was no significant interaction between condition and event type ( $b = -.06$ ,  $SE = 0.06$ ,  $p = .27$ ). The heavy-object condition and the light-object condition had comparable numbers of brief hand contact events (50% vs. 48%), as well as more sustained hand contact events (24% vs. 27%).

#### **Visual attention**

A Linear mixed-effect regression model was conducted. Condition (heavy objects vs. light objects) and event type (brief vs. sustained) were submitted as fixed effects and subject was submitted as a random effect. We calculated the proportion of all looks that fell at two duration categories—very brief durations (the head of the right-skewed distributions; less than 1 second) and substantially longer durations (the tail of the distribution; more than 3 seconds). There was no significant interaction between condition and event type ( $b = .01$ ,  $SE = 0.03$ ,  $p = .65$ ). The heavy-object condition and the light-object condition had comparable numbers of brief looking events (74% vs. 75%), as well as more sustained looking events (5% vs. 4%).

### **Visual attention during hand contact**

A Linear mixed-effect regression model was conducted. Condition (heavy objects vs. light objects) and event type (brief vs. sustained) were submitted as fixed effects and subject was submitted as a random effect. We calculated the proportion of all looking events that fell at two duration categories—very brief durations (the head of the right-skewed distributions; less than 1 second) and substantially longer durations (the tail of the distribution; more than 3 seconds). There was no significant interaction between condition and event type ( $b = .002$ ,  $SE = 0.02$ ,  $p = .93$ ). The heavy-object condition and the light-object condition had comparable proportions of brief looking events (79% vs. 79%), as well as more sustained looking events (2% vs. 2%).