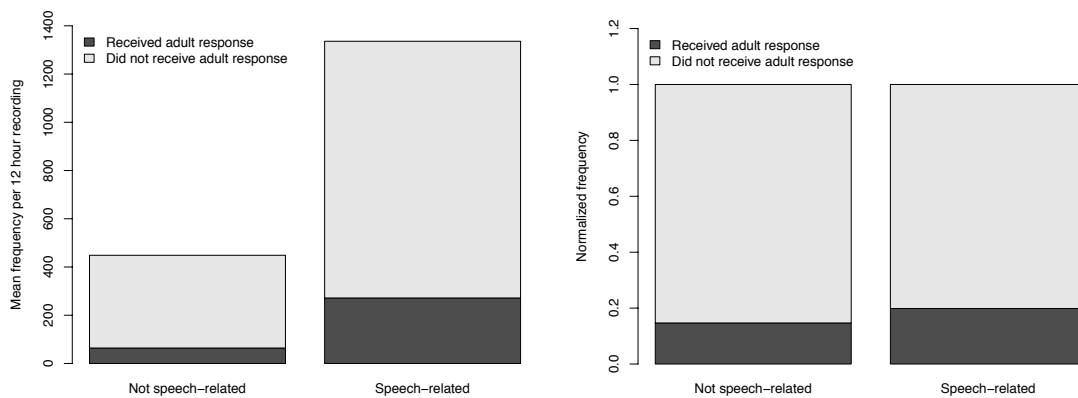


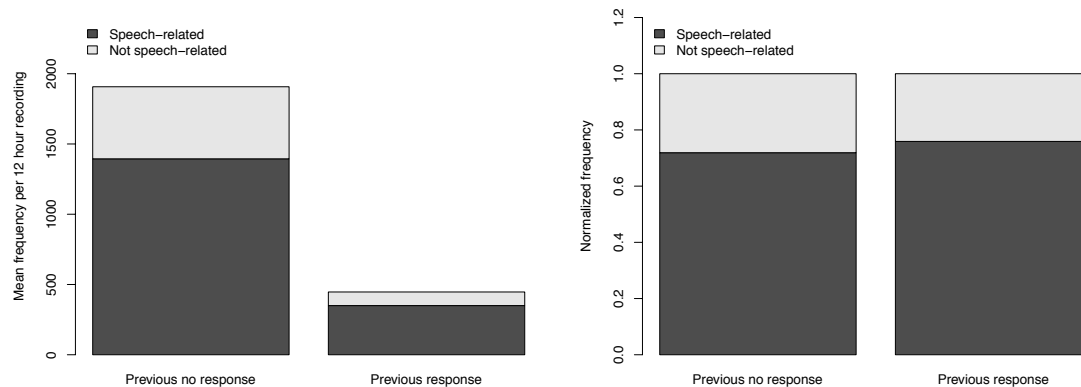
## Contingency Computation Supplemental Material

The figure below shows the four quantities that contributed to the measure of contingency of adult response on child vocalization type. What are shown in the figure are averages across all recordings. For the results presented in the main text, a contingency value is obtained for each recording individually.



*Left: The average number across all recordings of instances of child non-speech-related vocalizations receiving an adult response, child non-speech-related vocalizations not receiving an adult response, child speech-related vocalizations receiving an adult response, and child speech-related vocalizations not receiving an adult response. The contingency of adult response on child vocalization type is measured by looking at the proportion of the Speech-related bar that is colored dark and subtracting the proportion of the Not speech related bar that is colored dark. Right: The same as on the left, except that the height of each bar is normalized. The contingency of adult responding on child vocalization type can be seen in the greater height of the darker portion of the Speech-related bar compared to that of the Not speech-related bar.*

The figure below shows the four quantities that contributed to the measure of contingency of child vocalization type on whether the previous child speech-related vocalization received an adult response.



*Left: The average number across all recordings of instances of child speech-related vocalization when the previous child speech-related vocalization did not receive an adult response, child non-speech-related vocalization when the previous child speech-related vocalization did not receive an adult response, child speech-related vocalization when the previous child speech-related vocalization received an adult response, and child non-speech-related vocalization when the previous child speech-related vocalization received an adult response. The contingency of adult response on child vocalization type is measured by looking at the proportion of the Previous response bar that is colored dark and subtracting the proportion of the Previous no response bar that is colored dark.*

*Right: The same as on the left, except that the height of each bar is normalized. The contingency of child speech-related vocalization on the child's previous speech-related vocalization having received an adult response can be seen in the greater height of the*

*darker portion of the Previous response bar compared to that of the Previous no response bar.*