

Supplementary Figure 1: Flow diagram showing how the infants were split between each study group.

18 term infants (highlighted in green) were used to characterise the template of the sensory-evoked brain activity (See Methods). These infants were independent of those included in the developmental EEG study. Infants highlighted in blue were used in the main developmental study. EEG activity was recorded in a subset of these infants. In the 3 infants where only EEG activity was analysed, the video quality was too poor for inclusion in the analysis of facial expression. In 4 of the 55 infants where only facial expression data was analysed, technical failure of the EEG recording occurred and these infants were excluded from the EEG analysis. 51 of the 55 infants where only facial expression data was analysed did not have EEG activity recorded (and only had facial expression data recorded).