Video S1: In the 1st week of life, newborn chicks were reared with an animation showing four sequentially-presented shapes (the imprinting sequence). The order of the shapes was defined by the transitional probabilities (TPs) between shapes.

Video S2: A demonstration of a Transitional Probability (TP) test trial. On the TP test trials, one display wall showed the imprinting sequence, while the other display wall showed a sequence with familiar shapes defined by a different statistical structure.

Video S3: A demonstration of a Shape Recognition test trial. On the Shape Recognition test trials, one display wall showed a sequence of familiar shapes, while the other display wall showed a sequence of novel shapes.