

Limits of dynamic object perception in pigeons: dynamic stimulus presentation does not enhance perception and discrimination of complex shape.

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A go/no-go procedure was used to train pigeons to discriminate pictures of human faces differing only in shape, with either static images or movies of human faces dynamically rotating in depth. On the basis of experimental findings in humans and some earlier studies on three-dimensional object perception in pigeons, we expected dynamic stimulus presentation to support the pigeon's perception of the complex morphology of a human face. However, the performance of the subjects presented with movies was either worse than (AVI format movies) or did not differ from (uncompressed dynamic presentation) that of the subjects trained with a single or with multiple static images of the faces. Furthermore, generalization tests to other presentation conditions and to novel static views revealed no promoting effect of dynamic training. Except for the subjects trained on multiple static views, performance dropped to chance level with views outside the training range. These results are in contrast to some prior reports from the literature, since they suggest that pigeons, unlike humans, have difficulty using the additional structural information provided by the dynamic presentation and integrating the multiple views into a three-dimensional object.