The Effect of Object Rotation on Human Categorization

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We can easily recognize everyday objects
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Understanding human categorization can prevent future fatalities
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Humans categorize objects both logically and subconsciously

Explicit  VS.  Implicit

Images Courtesy of NPR, PicQuery, Swell Bottle, and Wholesome Goodness
Categorization occurs by sending images through the brain

Implicit categorization occurs in the neurons
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Image Courtesy of Cliparting
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Implicit categorization occurs in the neurons
Groups of neurons control your visual field

Rotations of everyday objects are accommodated by neurons, allowing implicit categorization
We want to know if rotation affects implicit categorization
Our experiment leads test subjects to begin implicit categorization

- Dorsal Fin Length
- Mouth Angle
- Belly Color
- Tail Length

Image Courtesy of Luke Rosedahl
Subjects receive feedback when they categorize the fish.
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The fish are flipped in the last block to test the effect of rotation
Test Subjects’ Average Percentage Correct

Average Percentage Correct vs. Block Number

Block Number

Average Percentage Correct

0 10 20 30 40 50 60 70 80 90 100

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Categorization affects rotation but the data is inconclusive
In the future, we could modify our experiment in order to improve results
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