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Detecting an illusion's perception change

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Abstract

There are binary optical illusions that people typically perceive only one of the two images. These illusions involve a cognitive process. The process seems to be on the edge between System 1 and System 2 and doesn't seem to be a conscious choice. In one well known example, people see either the old woman or the young lady and have difficulty perceiving the other image. We have found a way to manipulate an example of a binary choice perceptual illusion that starts with one image and at a particular point in the transition promptly switches to the other image in a Gestalt sense. The process is repeatable, reversible, appears to be stable over many repetitions, and has several characteristics that can be manipulated, such as the number, density, and size of the object(s) and the rate of change. The poster shows how to do this with a simple protocol.