

Mirror Drawing

(“The Tantalizer”)



Description:

The "Tantalizer" challenges you to trace drawings by looking at their images in a plane mirror.

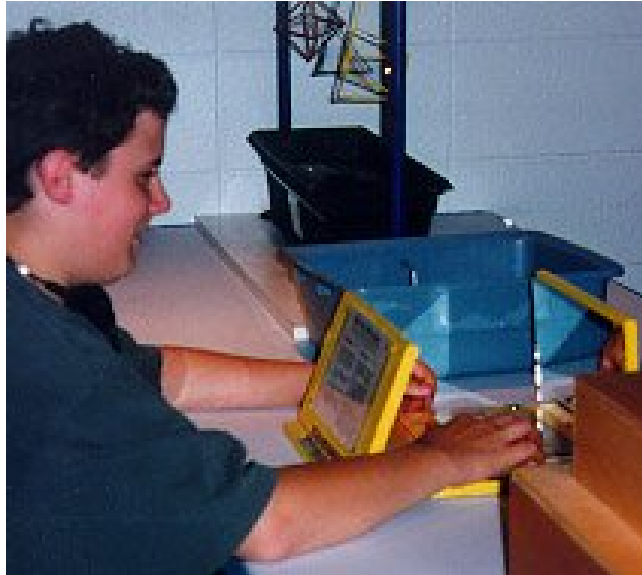
Purpose:

The Tantalizer illustrates the ***right to left reversal*** produced by a plane mirror. A great deal of frustration often results when you try to trace over the image of a pattern reflected in a mirror.

Your eye-brain system has been trained to receive and process stimuli based on past experiences. Your brain controls the movement of your hand based on what it has learned from those experiences. Thus, even though your brain knows that you are looking at a mirror image, control of the hand can be very difficult.

The tantalizer also illustrates ***negative feedback***, a process in which information from the external world is first sensed and then used to control the operation of a machine or organism. If you examine your attempts to trace the Tantalizer patterns, you will notice that your hand follows a "zig-zag" line as your eye-brain receives information and makes corrections.

Mirror Drawing *(“The Tantalizer”)*



TO DO AND NOTICE:

Your eye-brain system has been trained to receive and process stimuli based on past experiences. What happens when the input is not what the brain has come to expect? The Tantalizer will allow you to answer this question.

Try to trace the patterns while looking in the mirror.

- Which lines are most difficult to trace? Least difficult?
- Does practice seem to improve your ability to trace certain patterns?
- Why is mirror writing hard for most people?
- Can you think of a profession that requires working with mirror images on a regular basis?

WHAT'S GOING ON?

The Tantalizer illustrates the ***right to left reversal*** produced by a plane mirror. A great deal of frustration often results when you try to trace over the image of a pattern reflected in a mirror.

Your brain controls the movement of your hand based predominantly on what it has learned through past experiences. Thus, even though your brain knows that you are looking at a mirror image, control of the hand can be very difficult. (Students in dental school will attest to this!)

The tantalizer also illustrates ***negative feedback***, a process in which information from the external world is first sensed and then used to control the operation of a machine or organism. If you examine your attempts to trace the Tantalizer patterns, you will notice that your hand follows a "zig-zag" line as your eye-brain receives information and makes corrections.