Operational Definitions

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http://www.intropsych.com/ch01_psychology_and_science/operational_definitions.html

To test an idea, one must gather data. This means one must relate ideas to concrete, measurable events in the world. That is why scientists need *operational definitions*, which are definitions that tell how to *measure* or *detect* something.

How can one test the claim that 90% of the mind's power is unused? What is one likely to realize, at that point?

Consider the claim that "90% of the mind's power is unused." That is a statement many people believe. The Nobel Prize winning neurophysiology Sir John Eccles apparently repeated that idea at a lecture at the University of Colorado. Some people think the claim goes all the way back to Freud's statement that 90% of the mind is "under the surface" like an iceberg!

However, even the endorsement of a Nobel Prize winner does not make the statement true. To adopt a scientific attitude toward this claim, think about how you would test it. First you would have to define the terms. What is "the mind's power"? How do you measure it? How do you take a percentage of it?

When one thinks about how the claim would best tested, one realizes that in all likelihood the claim that "90% of mind power is unused" has *never been tested*. It is just an entertaining idea. When people say "90% of the brain's power is unused" they probably mean, "I believe most people have great untapped potential."

To evaluate evidence, you have to test ideas. To test ideas, you have to gather data. To gather data, you have to figure out how to translate the words of a

claim into measurement operations. In other words, to do scientific research you must first *define each word in a claim by telling what actions or operations can be used to measure it*. If you cannot define the words of a claim this way, the claim is meaningless from a scientific perspective. It is "just words."

What problem do scientists face every time they try to evaluate a claim? What is an operational definition?

Scientists face this problem every time they try to test an idea. They must always decide how to translate the words of a claim into specific measurement operations. They attempt to meet this challenge with a special type of definition, the *operational definition*. This is a definition that specifies how to *measure or detect* something.