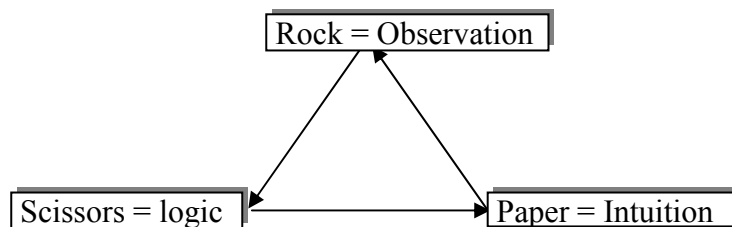


Three Ways of Knowing

There are, I think, three fundamental ways of knowing: observation, logic and intuition/faith. (Actually this trichotomy leaves out the most usual source of knowing which is, "I was told so by someone I believe," but I'm trying to trace knowledge back to its root sources.) I believe that these three ways of knowing form a triangle analogous to the game of rock/paper/scissors. The reader may wish to pause at this point and try to create a mapping between the two sets. That is, which one of observation, intuition and logic corresponds to rock or paper or scissors (or whether is this just a ridiculous analogy?)

OK, I'M GOING AHEAD NOW. My map is ...



By this I mean to make the following generalizations --

1. Intuition beats observation. No amount of pointing out facts will change the mind of the faithful.
2. Observation beats logic, as in, "That's a great theory, too bad it doesn't fit the facts." This is a crucial element of the scientific method.
3. Logic beats intuition. Faith is destroyed when it proves internally inconsistent. More than one person of faith has succumbed to the logical difficulty of reconciling a caring God with a wicked world.

I think the world is moving in the direction of less faith. In effect, two ways of knowing, observation and logic, got together, formed the scientific method and went about trying to disallow intuition as legitimate knowledge. This, of course, ignores a secret of the scientific method, which is the tremendous role that intuition plays in the formulation of ideas. It is a trick of the way science is taught to present ideas as appearing as hypotheses, derived from logic, and then being tested against the anvil of empiricism. But frequently the real origin of an idea is in an intuitive leap that a proponent would be hard pressed to defend until it is shaped by the logic + fact apparatus of science. People do not construct models and then wonder what they say; people construct in order to express some idea which is itself the result of pure intuition.

This alliance of logic and observation seems to spring particularly from Aristotle and Thomas Aquinas. Plato and Augustine seem to have proposed a more mystical alliance of logic and intuition.

The world is awash in nice sets of three (and five, seven, or twenty-two, I suspect, but I like threes). Below are some examples, accompanied by the speculation that they are related with the sort of precedence shown by rock, paper, and scissors.

1	rock	paper	scissors
2	facts/ observations	intuition, feeling revelation/authority	logic, thinking
3	id	ego	superego
4	Father	Holy Ghost	Son
5	transmission of emotion	what I like	critic's choice
6	economics/market incentives	sociology/tradition	politics/command
<p>The next two are from a song ("Currents") that tries to describe why Europeans became aware of the New World when, and in the manner, that they did. It turned out to encompass two sets of three. The first set describes my version of the three forces of discovery and invention. The second trio lists Columbus's description of how he decided to go. It is not clear that the precedence ordering is appropriate in this case.</p>			
7	currents of history	desires of individuals	wind of chance
8	sailor's tales	my own conclusions	words of wise men

Accepting this classification scheme and the particular columns I have elected requires making some "sense" out of the precedence ordering of rock over scissors over paper over rock.

To pick the id, ego, superego trio as an example. This ordering suggests:

1. the conscious, rational mind (ego) is what transcends the brute desires of the id. Being civilized manifests an act of rational will.
2. The carnal desires can override the conscience. I take the fallen priests and preachers to exemplify this.
3. Conscience can override human choice and thought. This is what religions strive to accomplish, though they say they are trying to overcome the id.

Let's try another: politics/economics/soc

1. Economics beats politics. This is the hope of those who advise trading with China, because the spreading roots of free trade will eventually crack the walls of totalitarianism.
2. Politics beats sociology. This is what communism accomplished in Yugoslavia. The heavy hand of the state for a time overrode the local ethnic hatreds.
3. Sociology beats economics. People will subvert their own best interests for the sake of social order. Racial discrimination in baseball was an example. Allowing blacks to play -- an economically good idea required changing the rules of the system which then changed people's ability to watch black players.

To the extent that these examples seem silly, arbitrary and capriciously made to conform to the framework merely for the sake of justifying framework, one has to wonder whether the whole approach is worthwhile. I often feel that any good idea should indeed be driven into the ground or into a wall. That way you find out how good the idea is. Analogies and metaphors never work completely

because no two things are really the same: There are only resonant points of comparisons that may be useful for understanding. Driving an idea to the point where it ceases to work is only the process of finding out how good the analogy is.

In this case I didn't have to go too far. 😊

True, False and Undecided

I would like to examine the concepts of truth and falseness in the context of these three types of knowing. It has been the usual practice to label statements as either "true" or "false." In this dichotomy, "false" includes anything not true, including everything undecided. I will, for present purposes, use all three terms: true, false, and undecided, where "false" denotes "known to be false."

A. In logic a statement is:

1. true, if it can be derived as a theorem – a logical consequence – from agreed upon axioms, using agreed upon logical rules.
2. false, if its negative can be proved as a theorem. That is, a statement is false if it is provably false.
3. undecided if neither it nor its negative has been proven. This opens two possibilities –
 - a. undecided, type 1: it has not yet been proved or disproved.
 - b. undecided, type 2: it is provably undecided. That is, a proof exists that the statement is not provable.

B. In observation truth rests on the existence of reproducible "facts" subject to the consensus of the informed, who may judge a statement true, false or undecided. Undecided statements come in two types analogous to the logic categories.

- a. undecided, type 1 occurs if the facts are subject to expert dispute. Much science -- social science in particular -- is rife with "facts" that are subject to seemingly intractable disagreement by authorities
- b. undecided, type 2 occurs if a statement cannot, by observation, be judged true or false. Some "facts" such as "Light behaves like a wave," cannot, in principle be true or false. Heisenberg's uncertainty principle produces observations of this sort.

C. Intuitive truth rests on a report of an experience, often assumed to be non-repeatable. A statement is true if I "know" it's true because I "feel" it to be so. "False" is defined analogously: my experience convinces me that the statement is incorrect.

Undecided, type 1 occurs when I have no personal experience that convinces me either way. Undecided, type 2 would exist if I had an experience that convinced me that I would never have an experience that would convince me either way.

I will finish by reproducing the text on a young man's T-shirt, which in my context is surely a deep post-modern manifesto.

<p>ROCK IS DEAD Long live paper and scissors</p>
