

**Next: Read Peirce Next: How to Make Our Ideas Clear**

**QUESTION: Explain the "three grades of clearness"?**

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## **Peirce, The Fixation of Belief (1877)**

Article where he

- introduces the doubt-belief matrix of inquiry;
- describes logic as the theory of inquiry as experientially controlled
- it is the first of the six papers of the "Illustrations of the Logic of Science" series, regarded by Peirce as inseparable from the paper below.

### **Outline:**

- The development of sources of knowledge
- Habit and Logic
- Peirce's Starting Point:
- The difference between a doubt and a belief?
- Inquiry
- Matrix of Belief and Doubt
- Methods Of Belief--Three Rejected, One Accepted
- METHOD OF SCIENCE--PEIRCE'S CHOICE
- Assuming the idea of "reality"
- Very imp't advantage: Self Correcting

**First section: logic and science develop in sync with one another.**

## **The development of sources of knowledge**

**Source**

**Where they thought knowledge came from:**

MEDIEVAL SCHOOLMAN--Knowledge comes from authority or reason; ultimately from authority.

BACONS (Francis, Roger)--early empiricism--Knowledge comes from experience; inner illumination, later, crude notion of scientific method: experience, experiment, and verification.

EARLY SCIENTISTS—

Kepler (dissatisfied with deductive astronomy, Kepler worked out the orbits, 22 hypotheses until the right one);

Lavoisier (dream-hypothesize, test by manipulating real things, retest, redream, test, retest, etc. and then publish results); Darwin (apply mathematics of probability to nature; concern is not with immediate certainty about individual cases, but with general laws over populations in the long run).

GENERAL TREND: Reasoning becomes Fact Based—

- a good argument depends upon
- the factual truth of the premises as well as upon
- whether the conclusion follows from the premises.

DESCARTES criterion of truth is rejected by Peirce—

- NO MORE C&D: truth = that we clearly and distinctly believe --is rejected by Peirce.
- PEIRCE: *"It is not in the least the question whether, when the premises are accepted by the mind, we feel an impulse to accept the conclusion also."* [Philosophical Writings of Charles Peirce, ed. Buchler, 7]

## Habit:

- IS WHAT leads the mind from premises to conclusions (not logical necessity).
- Habits are good if they produce lots of true conclusions over time.
- EXAMPLE: The habit of concluding there is a fire or hot source of some kind whenever smoke is present is a good one because it turns out to be true so often. We acquire the habit of concluding fire from the premise of smoke, and that habit guides our thinking in the future.

## Peirce's Starting Point:

Someone might wonder about the following:

- **QUESTION: How do we know anything is believable?** That one can ever escape from doubt?
  - ◇ E.g. Do others really exist?
  - ◇ E.g. Is there even a common way of thinking? A single logic we can agree upon?

**ANSWER: Peirce can't tolerate this theoretical starting point.** When we wonder about the rules of logic, the ways our belief about questions actually gets fixed...

### WE START OUT WITH A NUMBER OF INDISPENSABLE ASSUMPTIONS:

QUOTE FROM PEIRCE: "It is implied, for instance, that there are such states of mind as doubt and belief -- that a passage from one to the other is possible, the object of thought remaining the same, and that this transition is subject to some rules which all minds are alike bound by. As these are facts which we must already know before we can have any clear conception of reasoning at all, it cannot be supposed to be any longer of much interest to inquire into their truth or falsity." [Fixation, 9]

## Differences between a doubt and a belief

(1) **They FEEL different.** Asking a question and giving one's opinion just feel different.

(2) **They are PRACTICALLY/Consequentially different.**

- Beliefs guide our desires (toward one end rather than another)
- Beliefs shape our actions.
- Doubt does not.

QUOTE PEIRCE: "The feeling of believing is a more or less sure indication of there being established in our nature some habit which will determine our actions. Doubt never has such an effect." [Fixation 10]

### (3) They are **DIFFERENT STATES OF MIND**.

- DOUBT is LIKE AN IRRITATION—
  - it stimulates a struggle to escape from it--through inquiry--towards belief.
  - I.e., DOUBT ACTIVATES INQUIRY.
- BELIEF is NOT a state of IRRITATION,
  - but a state of contentment, satisfaction.
  - Belief disposes us **toward action** but doesn't initiate action.
  - BELIEF IS A DISPOSITION TO ACT A CERTAIN WAY.

## Thus, working definition of **INQUIRY**.

QUOTE FROM PEIRCE: "The irritation of doubt causes a struggle to attain a state of belief. I shall term this struggle inquiry, though it must be admitted that this is sometimes not a very apt designation." [Fixation 10]

### **INQUIRY IS ANTI CARTESIAN:**

QUOTE FROM PEIRCE: "Hence, the sole object of inquiry is the settlement of opinion. We may fancy that this is not enough for us, and that we seek, not merely an opinion, but a true opinion. But put this fancy to the test, and it proves groundless; for as soon as a firm belief is reached we are entirely satisfied, whether the belief be true or false."

[Cartesian doubt is not how we actually reason--the test is satisfaction. Truth must be proven over time.]

QUOTE PEIRCE: "And it is clear that nothing out of the sphere of our knowledge can be our object, for nothing which does not affect the mind can be the motive for mental effort."

[We don't seek to know transcendental objects--but the things that affect us in experience] [Fixation 10]

## **Matrix of Belief and Doubt**

EXAMPLE: sitting at my desk-->hear scratching noise--> investigate by going outside house--> see it's a branch--> back at desk, content again.

### **In Peirce**

contentment/beliefs — — — — —>contentment/beliefs — — — — —>

**contentment/beliefs—> doubt—> inquiry—> contentment/beliefs+—>**

contentment/beliefs — — — — —>contentment/beliefs — — — — —>

contentment/beliefs — — — — —>contentment/beliefs — — — — —>

### Some things to notice about Fig. 1

- **There is a matrix (or web) of doubts and beliefs.**
- **Many beliefs remain unchallenged because of a single doubt.**
  - ◊ (cf. James, Quine)
- **Descartes felt it necessary to doubt all to reach knowledge.**
  - ◊ **Peirce does not.**
- **Probability/Fallibilism is the standard.**
  - ◊ Belief --> is a "more or less" secure indication that a habit has been established.
  - ◊ There may not be a habit--but only time will tell.
    - ❖ We cannot ask for more than the experience of NOT being any longer irritated by the doubt that started our inquiry.
- **Objective of knowledge is not perfect certainty to resolve the doubt.**
  - ◊ **Objective is to merely resolve the doubt.**
    - ❖ This is both a fallible and contextual condition for knowledge—
      - ◊ it can be proved wrong by future experience
      - ◊ the amount of security we will require about our answer will depend on the context.
        - E.g. Inquiry about cancer treatment → longer, deeper length of inquiry to produce greater confidence/security

**N.B. In Dewey,**

determinate situation--> problematic situation--> inquiry--> determinate situation

## Three Impt aspects about Peirce's conception of Inquiry

### 1. LIVING DOUBT is required for inquiry.

- Inquiry requires a real and living doubt--not just the posing of a question a la Descartes.

### 2. PREMISES NEED ONLY TO BE ACCEPTABLE NOT CERTAIN.

- They need only be free from actual doubt. (e.g., this floor is stable is a good premise though not 100% certain.)

3. TERMINUS OF INQUIRY IS WHEN ACTUAL DOUBT SUBSIDES.

## **FIXATION OF BELIEF EVALUATES FOUR METHODS OF BELIEF**

Three Rejected, One Accepted

1. TENACITY
2. AUTHORITY
3. A PRIORI
4. \_\_\_\_\_ **SCIENCE** \_\_\_\_\_ (ACCEPTED)

### **1. TENACITY--belief is fixed by,**

- repeating it
- restricting one's inputs (reinforce beliefs, don't challenge them)
- clinging to one's beliefs (out of fear of ambivalence, or addiction to the certainty of knowing one's opinions)

NOTE: METHOD IS NOT IRRATIONAL:

- person who uses it doesn't want to reason—
  - ◊ they are choosing not to reason
  - ❖ that's just a different value.

### **PEIRCE OBJECTION TO TENACITY:**

- Method can't work in the long run.
- Beliefs are social in nature—
  - ◊ sooner or later the ostrich must remove head —
  - ◊ find out others think differently from them, and their beliefs seem better.
- IN OTHER WORDS,
  - ◊ THE SOCIAL IMPULSE to think together can be suppressed only on pain of endangering the species.

### **2. AUTHORITY--belief is fixed by,**

- \* manipulation of information: propaganda, revisionism and censorship

- \* terror and scapegoating
- \* prisons and massacres

This highly effective method is often used by institutions (states, religions). Note that smaller groups often use this method, too:

PEIRCE QUOTE: Wherever there is an aristocracy, or a guild, or any association of a class of men whose interests depend, or are supposed to depend, on certain propositions, there will be inevitably found some traces of this natural product of social feeling. Cruelties always accompany this system; and when it is consistently carried out, they become atrocities of the most horrible kind in the eyes of any rational man. [Fixation 13]

EXAMPLES:

- *"the first duty is to the shareholders"*
- *"One cannot be a feminist and against choice"*
- *"The German people must be of pure Aryan stock only ."*

Whenever the survival of an organization depends on the immovable truth of a belief,

- it can only fix beliefs by the method of authority.
  - ◇ Otherwise, the belief and the institution itself is threatened with extinction.
  - ❖ Irony: sympathy and fellowship can produce ruthlessness!

PEIRCE OBJECTION: This method is fine for people who want to remain intellectual slaves.

- But, over time, this method slips.
  - ◇ NOT EVERYONE CAN BE CONTROLLED, and
  - ◇ Eventually, SOCIAL DISCOURSE produces ideas that question custom and authority.
  - ❖ People admit that OTHERS MAY BE RIGHT.

### **3. A PRIORI--belief is fixed not by sheer dogmatism or authority but by,**

- Logical certainty -- only possible among ideas not based in experience.
- Examples:
  - ◇ Analytic truths: "All bachelors are married" or, more to the point,
  - ◇ Intuited Truths: Descartes C+D criterion--it allows him belief in many things (God, self, external world) simply because they were "agreeable to reason" [P's phrase], i.e., that he has claimed they were so (in his consciousness).
  - ◇ Speculative Assumptions: Another example is Hobbes' view that all men are warlike and greedy:

❖ "Human nature is greedy" is held true because *being greedy will get me more pleasure*.

◇ NOTE: It is NOT true on empirical grounds at all.

### PEIRCE OBJECTIONS:

(a) It cannot stand up to experience. Contradictions arise and overturn beliefs.

(b) Metaphysicians can't agree--and since there is no factual basis, agreement is impossible. Truth is a matter of taste.

### 4. METHOD OF SCIENCE--PEIRCE'S CHOICE

Peirce prefers because:

- ONLY THIS METHOD CAN SUCCESSFULLY FIX BELIEF IN THE LONG RUN. WHY?
  - ◇ It is NOT BASED ON SUBJECTIVE OPINIONS (of dogmatists, governments, metaphysicians).
  - ◇ It is based on THE WORLD/EXPERIENCE.

**QUOTE PEIRCE:** To satisfy our doubts, therefore, it is necessary that a method should be found by which our beliefs may be caused by nothing human, but by some external permanency -- by something upon which our thinking has no effect. Some mystics imagine that they have such a method in a private inspiration from on high. But that is only a form of the method of tenacity, in which the conception of truth as something public is not yet developed. [CONTRA EMERSON]

Our external permanency would not be external, in our sense, if it was restricted in its influence to one individual. It must be something which affects, or might affect, every man. And, though these affections are necessarily as various as are individual conditions, yet the method must be such (W3.254) that the ultimate conclusion of every man shall be the same.

Such is the method of science. Its fundamental hypothesis, restated in more familiar language, is this:

There are real things, whose characters are entirely independent of our opinions about them; those realities affect our senses according to regular laws, and, though our sensations are as different as are our relations to the objects, yet, by taking advantage of the laws of perception, we can ascertain by reasoning how things really are; and any man, if he have sufficient experience and reason enough about it, will be led to the one true conclusion. The new conception here involved is that of reality. [Fixation 18]

In other words:

**There is**

- **Real world with real things that affect us independently of what we wish.**
  - ◇ **These things act in lawlike ways that can be perceived.**
  - ◇ **We discover the way the world is by inquiring WITH others.**

## How Can Peirce Assume A Real World?

### 1. HIS ASSUMPTION IS NOT A PRIORI.

- **scientific method assumes hypothetically**
  - ◇ there are real things which can correct our theories.
  - ❖ this differs from a priori method which states what things **MUST** be like and then molds opinions to suit the theory.

I.e.,

**Assumption of reality leads to self correcting inquiry. (begin with hypothetical assumption)**

**NOT**

**Assumption of reality principle determines all future inquiries. (begin with theoretical principle)**

### 2. P and not-P. The irritation we feel at two contradictory propositions

- this phenomenon shows
  - ◇ there must be some one way the world is.
  - ❖ That's why we allow ourselves the hypothesis.
  - ❖ There is an ingrained social impulse (adaptation or habit) to feel this.
- ◇ Notice: Doubting reality is almost as hard as doubting one's own feeling.

### 3. Scientific method is very commonly used.

- Good track record that has withstood much experimental verification.

### 4. SCIENTIFIC method the cause of many successes

- Many doubts have been resolved by it and
  - ◇ Few people have living doubts about the success of the method.

### **MOST IMPORTANT ADVANTAGE: SELF CORRECTING:**

Scientific method leads to new knowledge and—

- as a method--it is affirmed and reaffirmed by ITS OWN APPLICATION.

QUOTE PEIRCE: "But with the scientific method the case is different. I may start with known and observed facts to proceed to the unknown; and yet the rules which I follow in doing so may not be such as investigation would approve. The test of whether I am truly following the method is not an immediate appeal to my feelings and purposes, but, on the contrary, itself involves the application of the method.



Hence it is that bad reasoning as well as good reasoning is possible; and this fact is the foundation of the practical side of logic.” [Fixation 20]

- ◇ If I make a blunder in my inquiry, the scientific method will point it out
- ❖ Because only that method requires that one look to the RESULTS to check the theory.
  - ◇ If the scientific method leads to bad results it **THROWS ITSELF INTO QUESTION AS A METHOD.**
  - ◇ The other methods **DO NOT DO THIS.**