Charles Peirce's Limit Concept of Truth

Catherine Legg

THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

Overview

1. TRUTH AS A PHILOSOPHICAL TOPIC

2. PEIRCE'S DEFINITION AND WHAT IT MEANS

      Pragmatism

      Fallibilism

      'The End of Inquiry'

3. OBJECTIONS AND RESPONSES

4. PEIRCE'S PRAGMATISM AS A PHILOSOPHY OF ENGAGEMENT

Truth as a philosophical topic

- I recently gave a talk on truth to a group of non-philosophers.

- Playfully, I offered to tell them ***"everything you ever wanted to know about truth but didn't have a philosopher to ask"***, and asked them what that would be.

- This led me to reflect on my own philosophical practice, thinking and writing about truth.

- **Interesting questions:** *What is a theory of truth meant to do? What questions are we trying to answer? What problems are we trying to solve? And if we **were to** solve them, what would it look like on the other side?*

- Is the concept of a *theory of truth* even coherent?

The search for a criterion of truth

- **Criterion of truth**: a desideratum that we could apply to our beliefs and thereby determine whether those beliefs *are true* (or, failing that, *are more likely to be true*).

- E.g. A belief is true if and only if it is...*sufficiently well justified / caused by the things that it is 'about' / self-evident / socially accepted* ...

- What I see as one of the biggest lessons of pragmatism: **Give up the search for criteria of truth. It is a pipe-dream.**

- But does that mean we should stop talking about truth altogether, as philosophers?

- Some pragmatists have taught that, e.g. Rorty: **"'[I]t is true' is not a helpful explanation of why science works, or of why you should share one of my beliefs"** (1985, p.286)

- Peirce's pragmatism, however, shows us another way.

Charles Sanders Peirce

- Sep. 10, 1839 – April 19, 1914
- American **philosopher**, **logician**, **mathematician**, **chemist, cartographer, psychologist...(and more)**
- In 1934, the philosopher Paul Weiss called Peirce: "the most original and versatile of American philosophers and America's greatest logician".
- Peirce placed logic within the broader context of a **theory of signs**, or semiotics.
- He founded **pragmatism**.

Peirce's definition of truth and what it means

- Peirce famously defined truth as follows:

"**The opinion which is fated to be ultimately agreed to by all who investigate, is what we mean by the truth"** (1878).

- In other words: *Truth is what lies at the limit of inquiry.*
- Note how this definition:

Peirce's definition of truth and what it means

- Peirce famously defined truth as follows:

> "**The opinion which is fated to be ultimately agreed to by all who investigate, is what we mean by the truth**" (1878).

- In other words: *Truth is what lies at the limit of inquiry.*
- Note how this definition:
  - links to a *community* – the community of inquiry

Peirce's definition of truth and what it means

- Peirce famously defined truth as follows:

> "**The opinion which is fated to be ultimately agreed to by all who investigate, is what we mean by the truth"** (1878).

- In other words: *Truth is what lies at the limit of inquiry.*

- Note how this definition:
  - links to a *community* – the community of inquiry
  - links to a *process* – the process of inquiry

Peirce's definition of truth and what it means

- Peirce famously defined truth as follows:

> "**The opinion which is fated to be ultimately agreed to by all who investigate, is what we mean by the truth"** (1878).

- In other words: *Truth is what lies at the limit of inquiry.*
- Note how this definition:
  - links to a *community* – the community of inquiry
  - links to a *process* – the process of inquiry
  - links to *the future*

As Peirce reached the end of his life, he softened this idea of fatedness from 'will-be' to 'would-be':

"If Truth consists in satisfaction, it cannot be any actual satisfaction, but must be the satisfaction which would ultimately be found if the inquiry were pushed to its ultimate and indefeasible issue" [1901]

Truth and Peirce's pragmatism

- The quote comes from Peirce's paper "How to Make our Ideas Clear" and it derives from his pragmatism.

- But it should not be thought that Peirce thought pragmatism offers a *theory of truth* (and here he differs from James and Rorty)

- Peirce's definition is not a *theory* of truth so much as a claim that this is what we *mean by* the truth.

- The purpose of "How to Make Our Ideas Clear" is – as the name says!

- The tool Peirce offers us for this is the **Pragmatic Maxim**:

"Consider what effects, that might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object."

- In other words: if you want to understand a concept, think of what it would lead you to *expect* in a *specific situation*.

Truth and Peirce's Pragmatism

In the paper, Peirce lays out **3 grades of clarity of meaning**:

1) **[Naive usage]** We can identify instances, without necessarily being able to say how. (E.g. pornography, obscenity trial)

2) **[Conceptual analysis]** We can give a verbal definition, as found in a dictionary. (This is where most philosophy stops)

3) **[Pragmatic Maxim]** We can derive future expectations from hypotheses containing that concept. (This is how scientists think)

Thus if we consider the everyday concept 'hard', our three stages are:

1) **"This table is hard"**

2) **"Hardness consists in the ability to resist pressure"**

3) **"If I rest my plate on this table, then it will not fall through"**.

Peirce called stage 3 the ***"experimentalist's theory of assertion"***.

Truth and Peirce's Pragmatism

- But the Pragmatic Maxim is not just intended for everyday 'practical' concepts. Peirce's great hope is that it will be used for clarifying 'difficult', abstract ideas of philosophy.

- One of the most contested and intractable philosophical concepts is of course *truth*. Peirce's definition is intended to raise this concept to the third level of clarity. After all:

"**The very first lesson that we have a right to demand that logic shall teach us is, how to make our ideas clear; and a most important one it is, depreciated only by minds who stand in need of it…**.

Here Peirce adds the following interesting observation:

It is most easily learned by those whose ideas are meagre and restricted; and far happier they than such as wallow helplessly in a rich mud of conceptions. [1878]

Fallibilism

- Inquiry is a process. We never reach a point where we have the entire truth and inquiry can cease.

- Given that we manage to negotiate the world without too many nasty surprises, we can assume that *many of our beliefs* are true.

- However, we can never be sure *which of our beliefs* are the true ones. This is Peirce's commitment to **fallibilism**.

- This commitment to fallibilism is 'operationalized' in the way Peirce defines the community of inquiry as containing ***infinitely many inquirers*** and stretching ***across infinite time***.

- This allows that no matter how wide a consensus exists on a given belief, it is always possible that ***another inquirer*** will come along, at ***a later time***, and manage to overturn it.

"...out of a contrite fallibilism, combined with a high faith in the reality of knowledge, and an intense desire to find things out, all my philosophy has always seemed to me to grow" (1902).

The Fixation of Belief

But what does the community of inquiry do? Don't we need some guidelines, so they don't go off-base?

In a way, Peirce accepts this radical conclusion. Whatever the community of inquiry does to begin with, they will get there in the end. However in a paper entitled "The Fixation of Belief he does give some guidance.

- Belief as habit. Doubt as an unsettled state. (Distinction between 'living' and 'paper' doubt: turns on whether you really are unsettled.)

- what it takes to "fix belief". Here we may identifies four fundamental methods:

1) whatever you happen to believe now (The Method of Tenacity),

2) whatever an institution tells you to believe (The Method of Authority),

3) whatever seems most coherent and/or elegant (The A Priori Method).

4) seeks to conform beliefs to that which is independent of them, and has as its key enabling hypothesis that, "there are real things, whose characters are entirely independent of our opinions about them…and any man, if he have sufficient experience and he reason enough about
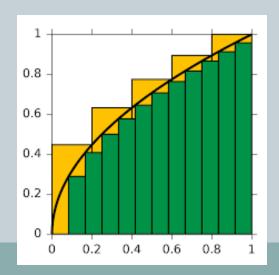
The End of Inquiry

- Peirce's definition of truth is often summarised in the slogan:

    Truth is the end of inquiry.

- This is correct but the phrase is crucially ambiguous.
- This is not 'end' in the sense of **finish**: some utopian future time where all questions are settled.
- It is 'end' in the teleological sense of **aim** or **goal**.
- It is merely an idealised continuation of what scientific inquirers are doing now, namely settling questions about which they genuinely doubt.
- This answers the profound misunderstanding of Russell in his critique of Peirce that because *"the last man on earth", "will presumably be entirely occupied in keeping warm and getting nourishment, it is doubtful whether his opinions will be any wiser than ours"* (1939, 145)

Objections: i) Incoherent

- Rorty: ***"there can be no such thing as an 'ideal audience' before whom justification would be sufficient to ensure truth, any more than there can be a largest integer"*** (1995, p.283).

- But we've seen the true meaning of 'end of inquiry' is not a perfect epistemic resting place, so much as precisely the model which ensures that inquiry might continue indefinitely.

- Also despite *prima facie* appearance to the naïve word-based philosopher, thinking about infinity can be coherent and rigorous.
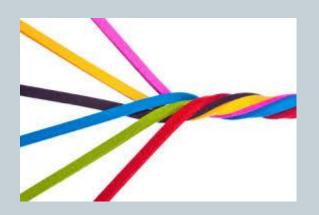

Consider the integral calculus. This shows it is not logically inconsistent to posit an infinite process of adding infinitesimally small quantities – which nevertheless yields a finite, determinate answer.

Objections: i) Incoherent

- Quine: the idea of approximation to a limit ***"depends on that of 'nearer than', which is defined for numbers and not for theories"*** (1960, p. 23).

- It's true that we can't compare our current best theory and 'things-in-themselves'. We cannot experience things-in-themselves directly: thus the idea is useless metaphysics (comes out as meaningless under the pragmatic maxim)

- However, the notion of a theory being ***nearer to the truth than one's present theory*** is something scientific inquirers work with on a regular basis.

- What does it mean that a theory is nearer to the truth than one's present theory? Just that it ***solves some problem*** that the other theory doesn't.

- Because that is how scientific inquiry moves forward – not by contemplating reality, or counting leaves on a tree (which is also a fact), but by solving problems.

Objections: ii) Definition 'too realist'

- We have seen that Peirce's account of truth assumes that if inquiry proceeds long enough our belief will settle on a single answer to any given question. This is the idea of *Convergence*. Many have wondered: what reason do we have to believe this?

- Russell asked*: Is this an empirical generalization from the history of research? Or is it an optimistic belief in the perfectibility of man? Does it contain any element of prophecy, or is it a merely hypothetical statement of what would happen if men of science grew continually cleverer?* (1939, 146).

Even if inquiry produces convergence in belief, why should it be to one, single end-state? Can't we have *Pluralistic Convergence*?

Objections: ii) Definition 'too realist'

- Here Peirce falls back on the focus that his pragmatism puts on *meaning*.

> "**The opinion which is fated to be ultimately agreed to by all who investigate, is what we mean by the truth"** (1878).

- As noted, this is not a theory of truth. It is not stating that convergence on a single opinion is ***what will happen***. But it is stating that ***this is what we mean by the truth***.

- Popular today to say: You believe **P** and that is true for you. I believe **not-P** and that is true for me. This is often justified as 'respecting each others' beliefs'.

- But think about what it means, pragmatically, if we say this to one another.

- We might have respect. But we lose the opportunity to learn from each other, and both take our views further. In this way, convergence is a *regulative hope*.

Objections:iii) Definition 'not realist enough'

- Shouldn't truth be kept free of 'epistemic' notions such as *belief*, and *agreement within the community of inquiry*? (Horwich: "Truth has a certain purity")

- Can't we at least imagine that the community of inquiry might *all* fail to agree on something true, *forever*?

- ***Lost facts:*** This worry is often pressed by imagining certain truths which it seems it would be *clearly impossible to discover*:

  - Smart: "[t]hat Winston Churchill sneezed twice more on a certain date in 1941 than did Franklin Roosevelt"

  - Johnston: "the number of cakes on a particular tray at a specific time during a party held years ago"

  - Field: the number of dinosaurs that ever existed

Objections:iii) Definition 'not realist enough'

- Here Peirce says – Not so fast! How do we *know* we will never find out these things? Our fallibilism applies here too:

> "...it is unphilosophical to suppose that, with regard to any given question (which has any clear meaning), investigation would not bring forth a solution of it, if it were carried far enough...Who can be sure of what we shall not know in a few hundred years? (1878).

- The history of science is littered with embarrassing claims that a certain thing can never be found out.

- E.g. Comte, who when asked for a clear example of something scientifically undiscoverable cited **the chemical composition of stars.** But, *'...the ink was scarcely dry upon the printed page before the spectroscope was discovered and that which he had deemed absolutely unknowable was well on the way of getting ascertained'*

Objections:iii) Definition 'not realist enough'

- To state categorically that certain facts cannot ever be discovered is much worse, Peirce urges, than cherishing a foolish hope that any given fact can be:

...there is no positive sin against logic in trying any theory which may come into our heads, so long as it is adopted in such a sense as to permit the investigation to go on unimpeded and undiscouraged. On the other hand, to set up a philosophy which barricades the road of further advance toward the truth is the one unpardonable offence in reasoning....(1898).

Upon this first, and in one sense this sole, rule of reason, that in order to learn you must desire to learn and in so desiring not be satisfied with what you already incline to think, there follows one corollary which itself deserves to be inscribed upon every wall of the city of philosophy, Do not block the way of inquiry! (1898).

Philosophy of Engagement

- We have seen Peirce's fallibilism teaches that there is no criterion of truth.
- This means that the solution for poor opinions is not **attempting to dictate methods that must be followed to avoid error.**
- One might dub this: *Epistemic Managerialism* (a concern in an age of "Knowledge Capitalism" (Peters and Besley, 2006))
- *The solution for poor opinions is more opinions.* ***Apply more perspectives to the problem and trust the process of inquiry.***
- ***This is how Peirce's understanding of truth is a philosophy of engagement.***
- As pragmatists we trust that as we are all located in the one world, *and interacting with it*, false beliefs will be found to have uncomfortable consequences, which will motivate us to correct them.
- If a belief is never found to have uncomfortable consequences by *any* person *across all time*, what does it *mean* to say that the belief is false?

Implications for Education

- Our great task as teachers is not to endow students with the truth
- Our task is not even to endow students with a failsafe algorithm for finding the truth. (*Gil Burgh: The "banking model of education"*)
- Much mainstream epistemology with its talk of finding prior justifications and warrants for our beliefs is enormously misleading on this point (e.g. *Audi, Greco, Sosa, Plantinga*). *(Tracy Bowell: modernist epistemology demands indefeasible reason for belief)*
- The truth (or otherwise) of our beliefs does not lie in their immediate past, but in their future, which no-one can predict.
- ***Our task is to invite students into the community of inquiry to stand, and inquire, alongside us.***
- To the degree that we are able to do this, the end result will surprise and excite all of us.
- These are the most exciting classes. Transformative, in fact.

The University

- Peirce's fallibilism led him to have some thoughts about the University:

The first thing that the Will to Learn supposes is a dissatisfaction with one's present state of opinion. There lies the secret of why it is that our American universities are so miserably insignificant...The English universities, rotting with sloth as they always have, have nevertheless in the past given birth to Locke and to Newton...The German universities have been the light of the whole world. The medieval University of Bologna gave Europe its system of law...

The reason was that they were institutions of learning while ours are institutions for teaching. In order that a man's whole heart may be in teaching he must be thoroughly imbued with the vital importance and absolute truth of what he has to teach; while in order that he may have any...success in learning he must be penetrated with a sense of the unsatisfactoriness of his present condition of knowledge. The two attitudes are almost irreconcilable. [1898]

Inquiry Grows

- So it seems that Peirce wanted to encourage more genuine inquiry to take place in Universities.

- However it's important to note that, once again, *Epistemic Managerialism*, a.k.a. 'planning how to inquire' is not the answer. When the conditions are right, inquiry will *grow*:

[I]nquiry of every type, fully carried out, has the vital power of self-correction and of growth. This is a property so deeply saturating its inmost nature that it may truly be said that there is but one thing needful for learning the truth, and that is a hearty and active desire to learn what is true. If you really want to learn the truth, you will, by however devious a path, be surely led into the way of truth, at last. No matter how erroneous your ideas of the method may be at first, you will be forced at length to correct them so long as your activity is moved by that sincere desire. [Even] if you only half desire it, at first, that desire would at length conquer all others, could experience continue long enough. [1898]

The End of Inquiry

REFERENCES

THIS TALK WAS ADAPTED FROM:

- Legg, C. "Charles Peirce's Limit Concept of Truth", *Philosophy Compass* **9(3)**, 2014, pp. 204-213.

OTHER REFERENCES:

- Peirce, C. "How to Make our Ideas Clear", 1878. http://www.peirce.org/writings/p119.html

- Peirce, C. *Collected Papers* vol. 1–6 C. Hartshorne and P. Weiss, A. Burks. vol 7–8 C. Hartshorne, P. Weiss, A. Burks. (eds.). Cambridge, Mass: Harvard University Press (1931–1958).

- Peters, M. and Besley, T. *Building Knowledge Cultures: Education and Development in the Age of Knowledge Capitalism.* Rowman and Littlefield, 2006

- Quine, W.V.O. *Word and Object.* New York: MIT Press, 1960.

- Rorty, R. "Is Truth A Goal of Enquiry?" *The Philosophical Quarterly* **45(180)**, 1995, pp. 281–300.

- Russell, B. "Dewey's New Logic", in Schilpp, ed., *The Philosophy of John Dewey.* Evanston IL: Northwestern University Press, 1939, pp. 135–156.

Thank you!
clegg@waikato.ac.nz