



Reason, Truth,
& History

Dr. Adam M.
Goldstein

Introduction

Ants,
Monkeys,
Clouds

Brain stew

Turing test

An answer?

A contemporary view of skepticism Hilary Putnam's *Reason, Truth, and History*

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Reason, Truth,
& History

Dr. Adam M.
Goldstein

Introduction

Ants,
Monkeys,
Clouds

Brain stew

Turing test

An answer?

[slide #2]

A linguistic approach to “evil demon” skepticism

- Hilary Putnam (1926–), *Reason, Truth, and History*, attempts to show that Descartes’ skepticism cannot be stated in a linguistically meaningful way.
- His argument is built around a view about what makes a statement meaningful.
- His conclusion is meant to make us less worried about the skepticism.
- This is because there’s no need to try to argue against a meaningless statement.



Reason, Truth,
& History

Dr. Adam M.
Goldstein

Introduction

Ants,
Monkeys,
Clouds
A puzzle

Brain stew

Turing test

An answer?

[slide #3]

Where Are We, and What’s Next?

- 1 Introduction
- 2 Ants, Monkeys, & Clouds
 - Is resemblance alone enough for meaning?
- 3 A brain in a vat
- 4 The Turing test for consciousness
- 5 Is everyone just a brain in a vat?



Reason, Truth,
& History

Dr. Adam M.
Goldstein

Introduction

Ants,
Monkeys,
Clouds
A puzzle

Brain stew

Turing test

An answer?

[slide #4]

The ant at the beach and other mysteries

- Suppose an ant is scurrying about on the beach, creating a small channel in the sand along its path.
- As it happens, the ant’s path looks like an outline of a person, say, a particular person.

Question Is the ant’s trail a picture of that person?
Suggestion No, because the ant has never seen a person, and can’t know what a person looks like, especially if it’s a particular person.
- Consider: monkeys writing *Hamlet*; shapes in the clouds; other cases.
- Catty: talk to the Internet via Google at <http://lcamtuf.coredump.cx/catty.shtml>. (Warning: unreliable link.)



[slide #5]

The “intention” theory

Reason, Truth,
& History

Dr. Adam M.
Goldstein

Introduction

Ants,
Monkeys,
Clouds
A puzzle

Brain stew

Turing test

An answer?

- One position on what gives a pattern (pictures, words on the page, sounds, etc.) is that *the pattern has meaning only if someone intends for it to mean something*.
- So the ant’s “picture” is not an image of the person.
- It’s just a random, accidental pattern in the sand.
- Ants don’t have intentions, so they can’t create patterns that have meaning.
- The same is true of the monkeys writing *Hamlet* and clouds.
- As will be seen, Putnam disagrees with the “intention” theory about how a pattern can be meaningful.



[slide #6]

Where Are We, and What’s Next?

Reason, Truth,
& History

Dr. Adam M.
Goldstein

Introduction

Ants,
Monkeys,
Clouds

Brain stew
The demon

Turing test

An answer?

- 1 Introduction
- 2 Ants, Monkeys, & Clouds
- 3 A brain in a vat
 - Updating the evil demon
- 4 The Turing test for consciousness
- 5 Is everyone just a brain in a vat?



[slide #7]

The evil demon—remember?

Reason, Truth,
& History

Dr. Adam M.
Goldstein

Introduction

Ants,
Monkeys,
Clouds

Brain stew
The demon

Turing test

An answer?

- Descartes suggests that we are alone with our thoughts, and that the evil demon might be deceiving us about what’s real.
- The demon deceives us by manipulating our thoughts so that what we believe about the world is false.
- I think I see a chair nearby; but there isn’t one; I think I hear someone talking about Descartes, but there’s no one there; I think $1 + 1 = 2$ but it really doesn’t.
- Skepticism created by the dream argument is similar.



[slide #8]

The demon can be replaced with a computer

Reason, Truth,
& History

Dr. Adam M.
Goldstein

Introduction

Ants,
Monkeys,
Clouds

Brain stew
The demon

Turing test

An answer?

- Today, we look to science fiction.
- A mad scientist or super-robot has removed the brain from someone’s body, put it in a beaker to keep it alive.
- The brain is then connected to a computer which can be programmed to make the “person” have beliefs identical to those he or she might have acquired from the senses.
- The person thinks he or she sees a chair nearby, hears music playing, tastes pizza, and so on.
- We do have something like this today: virtual reality.



[slide #9]

The disembodied brains form a society

Reason, Truth, & History

Dr. Adam M. Goldstein

Introduction

Ants, Monkeys, Clouds

Brain stew
The demon

Turing test

An answer?

- The mad scientist (or robots, or . . .) has created linkages between all of the disembodied brains.
- Some of the brains can “talk” to others—the one person believes that he or she is speaking, but really isn’t; and another person “hears” the other person.
- But in fact, the robots have stimulated the speaking part of the brain of the one person, and the hearing part of the other person.
- People have similar experiences—some of them see what they would see if they were in the same room together, if they were looking at the same tree outside, tasting the same pizza, etc..
- In short, the people/brains experience *exactly what we would experience*, assuming none of us is a brain in a vat.



[slide #10]

Where Are We, and What’s Next?

Reason, Truth, & History

Dr. Adam M. Goldstein

Introduction

Ants, Monkeys, Clouds

Brain stew

Turing test

Alan Turing
Do as I do

An answer?

- 1 Introduction
- 2 Ants, Monkeys, & Clouds
- 3 A brain in a vat
- 4 The Turing test for consciousness
 - Alan Turing: Mathematician as War Hero
 - A Dialogical Test of Competency
- 5 Is everyone just a brain in a vat?



[slide #11]

Cracked the Enigma code, invented the computer

Reason, Truth, & History

Dr. Adam M. Goldstein

Introduction

Ants, Monkeys, Clouds

Brain stew

Turing test

Alan Turing
Do as I do

An answer?

- The Nazis encoded their messages using what is called an “Enigma machine,” which used a complex pattern to create each new code.
- The code was changed each day, and was believed to be unbreakable.
- Alan Turing was the most brilliant of a group of British mathematicians who broke the code.
- After the war, Turing developed the “Turing test” (see below), and a machine that could do mathematical calculations—a novel machine called a “computer.”



[slide #12]

Persecuted by his country

Reason, Truth, & History

Dr. Adam M. Goldstein

Introduction

Ants, Monkeys, Clouds

Brain stew

Turing test

Alan Turing
Do as I do

An answer?

- Turing was homosexual, illegal in Britain at the time. He was sentenced to chemical castration in 1952.
- He continued work on government code-breaking until 1948, when he was no longer granted security clearance, which homosexuals were not allowed to receive.
- Because his work in the war was secret, neither he nor anyone else was permitted to talk about it—nor was he permitted to talk about his loss of security clearance.
- He died of cyanide poisoning in 1954, ruled a suicide.
- In 2009, British Prime Minister Gordon Brown issued a formal apology for its treatment of Turing.



[slide #13]

Where Are We, and What's Next?

Reason, Truth, & History

Dr. Adam M. Goldstein

Introduction

Ants, Monkeys, Clouds

Brain stew

Turing test

Alan Turing
Do as I do

An answer?

- 1 Introduction
- 2 Ants, Monkeys, & Clouds
- 3 A brain in a vat
- 4 The Turing test for consciousness
 - o Alan Turing: Mathematician as War Hero
 - o A Dialogical Test of Competency
- 5 Is everyone just a brain in a vat?



[slide #14]

The Turing test

Reason, Truth, & History

Dr. Adam M. Goldstein

Introduction

Ants, Monkeys, Clouds

Brain stew

Turing test

Alan Turing
Do as I do

An answer?

- o Turing proposes a test that he claims can be used to determine whether a given being (person, machine, visitors from another planet, animal . . .) is conscious.
- o This test is as follows.
- o A being is conscious if, in conversation with it, a human being believes that he or she is talking with another human being (or other conscious being).
- o This is a *dialogical test of competency* because a conversational exchange is used to determine whether a being has mastery of the skill of language use.
- o Putnam proposes a dialogical test for reference: one person is referring to the same thing as another person, if the two people carry on a successful conversation about the referred-to thing.



[slide #15]

More on dialogical tests

Reason, Truth, & History

Dr. Adam M. Goldstein

Introduction

Ants, Monkeys, Clouds

Brain stew

Turing test

Alan Turing
Do as I do

An answer?

- o How can someone tell whether another person is referring to the same thing in conversation?
- o Someone can tell, if the conversation proceeds smoothly, without confusion, about the thing in question.
- o There is no confusion over what the thing looks like, where it is, what kind of thing it is, or other details concerning the thing.
- o Here is an example of a conversation in which there is a failure to refer to the same thing, a bank:
- o “Did you see how beautiful the bank is?” “I dunno, it’s been flooding.” “What?” “You know, the bank downtown.” “Oh, *that* bank.”



[slide #16]

What are language entrance rules & language exit rules?

Reason, Truth, & History

Dr. Adam M. Goldstein

Introduction

Ants, Monkeys, Clouds

Brain stew

Turing test

Alan Turing
Do as I do

An answer?

- Language entrance rules Rules a person uses to determine what linguistic response to make to a non-linguistic experience.
- o I see an apple and want to point it out (nonlinguistic); I say “hey, there’s an apple!” (linguistic).
- Language exit rules Rules a person uses to determine what non-linguistic response to make upon understanding what someone conveys with language.
- o “There’s an apple over there” (linguistic); I am hungry, so I eat the apple (nonlinguistic).



[slide #17]

We understand each other because we share entrance and exit rules

Reason, Truth, & History

Dr. Adam M. Goldstein

Introduction

Ants, Monkeys, Clouds

Brain stew

Turing test

Alan Turing

Do as I do

An answer?

- People that speak the same language all use (roughly) the same language entrance and exit rules.
- That's how we can succeed in communicating with language, acting in a coordinated, organized manner.
- We know what to say to others to describe our experiences.
- We know what others are experiencing or have experienced.
- As we will see, language entrance rules and language exit rules play an important role in Putnam's answer to the question, "Can I know whether I am a brain in a vat?"



[slide #18]

Where Are We, and What's Next?

Reason, Truth, & History

Dr. Adam M. Goldstein

Introduction

Ants, Monkeys, Clouds

Brain stew

Turing test

An answer?

Can't say!

- 1 Introduction
- 2 Ants, Monkeys, & Clouds
- 3 A brain in a vat
- 4 The Turing test for consciousness
- 5 Is everyone just a brain in a vat?
 - We just can't say!



[slide #19]

Putnam's view about the meaning of referring terms

Reason, Truth, & History

Dr. Adam M. Goldstein

Introduction

Ants, Monkeys, Clouds

Brain stew

Turing test

An answer?

Can't say!

- "Referring terms" are terms (words or phrases, for instance) used by speakers of a language to point out a particular thing in the environment.
- Putnam's view is that, for a referring term to have a meaning, the person (or other entity) must either:
 - 1 Have had direct experience of the thing being referred to; or
 - 2 Have had experience of something or someone else who has had direct experience of the thing being referred to.
- Putnam's view is that for referring terms to have a meaning, the thing must cause, in part, the language user's reference to the thing.



[slide #20]

More on Putnam's theory about reference

Reason, Truth, & History

Dr. Adam M. Goldstein

Introduction

Ants, Monkeys, Clouds

Brain stew

Turing test

An answer?

Can't say!

- Direct experience The person speaking has seen (for instance) the thing being referred to with his or her own eyes.
- Someone else's The person speaking learns about the thing from someone who has seen (heard, etc.) the thing with his or her own eyes (ears).
 - Some people would say that if a robot programmed by someone who has seen the referred-to objects, the robot can refer to those things.



[slide #21]

Can a brain in a vat refer to anything?

Reason, Truth, & History

Dr. Adam M. Goldstein

Introduction

Ants, Monkeys, Clouds

Brain stew

Turing test

An answer?

Can't say!

- On Putnam's view, as just stated, successful reference requires that the person who wants to refer must be causally connected with the thing he or she wants to refer to.
- So, a brain in a vat cannot ever refer to anything. (!!!)
- They cannot have direct experience of anything.
- All of the beliefs they believe they have acquired through the senses really have not been acquired that way.
- Rather, they have been acquired by stimulation by the mad scientist or robots.



[slide #22]

What does a brain in a vat "say" to another brain in a vat?

Reason, Truth, & History

Dr. Adam M. Goldstein

Introduction

Ants, Monkeys, Clouds

Brain stew

Turing test

An answer?

Can't say!

- "Look at that beautiful tree over there." "The one with the decorations?" "That's the one."
- According to Putnam, these statements are meaningless, mere words, totally empty.
- None of brains in the vats have probably never been near a tree.
- Note that *intending* to refer to a tree is not enough—this was the theory we began the discussion with.
- Even though the experience of each brain in its vats is qualitatively the same as ours might be, the words the brains use mean something different than they would if we used them.



[slide #23]

"I am a brain in a vat" cannot be a meaningful statement by someone who is a brain in a vat

Reason, Truth, & History

Dr. Adam M. Goldstein

Introduction

Ants, Monkeys, Clouds

Brain stew

Turing test

An answer?

Can't say!

- "I am a brain in a vat," said by someone in a vat, implies that there is a vat, which is in a larger world, which has the objects in it which the person says are outside the vat.
- But as argued above, according to Putnam, a brain in a vat cannot meaningfully refer to anything outside the vat.
- The brain in the vat cannot do this because there has to be a causal connection between the thing referred to and the person attempting to refer to it—which a brain in a vat can never have.
 - Remember Putnam's theory about reference—direct experience of the thing or learning of the thing from someone who has had direct experience is required for reference.



[slide #24]

A brain in a vat can never use the entrance and exit rules of a language

Reason, Truth, & History

Dr. Adam M. Goldstein

Introduction

Ants, Monkeys, Clouds

Brain stew

Turing test

An answer?

Can't say!

- Because the brains are in vats, they cannot use the language entrance rule "when in the presence of a thing, use the word for that thing to refer to it."
- They can't do this, because they are never in the presence of trees.
- Likewise, they can't use the language exit rules, such as "when someone says 'I want an apple,' bring the shiny red thing to that person."
- To refer to an apple, someone needs to have been causally connected with an apple.
- But brains in vats never are.



[slide #25]

Information about Alan Turing

*Reason, Truth,
& History*

Dr. Adam M.
Goldstein

Introduction

Ants,
Monkeys,
Clouds

Brain stew

Turing test

An answer?

Can't say!

Cracking the Enigma code:

`http:`

`//plus.maths.org/issue34/features/ellis/`

Turing Memorial in Manchester:

`http://www.btinternet.com/~glynhughes/
sculpture/turing.htm`

Turing's computer:

`http://www.computer50.org/index.html`

A comprehensive site by Turing's biographer:

`http://www.turing.org.uk/turing/index.html`

England's Prime Minister apologizes, 10 September 2009:

`http://webarchive.nationalarchives.gov.uk/+/
number10.gov.uk/news/latest-news/2009/09/
treatment-of-alan-turing-was-appalling-
pm-20571`