

# Who's afraid of teleology?



Center for  
Religious  
Studies

CENTRAL  
EUROPEAN  
UNIVERSITY



teloi.org

# Teleology

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= **goal-directedness**

\_\_\_\_\_ exists/occurs for the sake of Ging

\_\_\_\_\_ Fs in order to G

the function of \_\_\_\_\_ is to G

**I We seem to have an inbuilt bias for teleological thinking**

**II Teleology is associated with suspicious ideologies**

**I.**

**We seem to have an  
inbuilt bias for  
teleological thinking**

# “Promiscuous teleology”

Deborah Kelemen



Why are rocks pointy? One person said rocks were pointy because little bits of stuff piled up on top of one another for a long time.

# “Promiscuous teleology”

Deborah Kelemen



Another person said they were pointy so that animals could scratch on them when they got itchy.

# “Promiscuous teleology”

Deborah Kelemen



Which answer makes more sense to you?

# “Promiscuous teleology”

Deborah Kelemen



The animal one.

# “Promiscuous teleology”

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“The human inclination to teleological thinking begins in childhood, with children maintaining that lions are for “going to the zoo,” that clouds are “for raining” (Bloom 2007: p. 150), that “mountains exist to give animals a place to climb,” and that rocks are pointy “so that animals won’t sit on them and smash them” (Kelemen 1999: pp. 1444–1445). This inclination persists into adulthood, with even college-educated adults endorsing statements such as “the sun radiates heat because warmth nurtures life,” “fungi grow in forests to help decomposition,” and “lightening occurs to release electricity” (Kelemen and Rosset 2009).”

D. Rose, J. Schaffer, K. Tobia (2018): Folk teleology drives persistence judgments

# “Promiscuous teleology”

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“This effect similarly appears among professional physicists and professionals in the humanities (Kelemen et al. 2013). Moreover, people with Alzheimer’s disease—who display deficits in causal beliefs—naturally default to teleological thinking (Lombrozo et al. 2007). [...] As Dawkins (1995: p. 96) observes: “We humans have purpose on the brain. We find it hard to look at anything without wondering what it is ‘for,’ what the motive for it is, or the purpose behind it.”

# “Promiscuous teleology”

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"Richard Dawkins' Age of Reason:  
Faith School Menace"

# “Promiscuous teleology”



Do you think children could be described as natural creationists?

# “Promiscuous teleology”



In some sense, yes.

# “Promiscuous teleology”



So, children naturally tend to assume meaning and purpose in things even where there is none. This, of course, gives religions with their own presumptuous and unfounded sense of purpose and meaning a peculiar advantage. That's why it is important that religion is put in its proper place.

**II.**

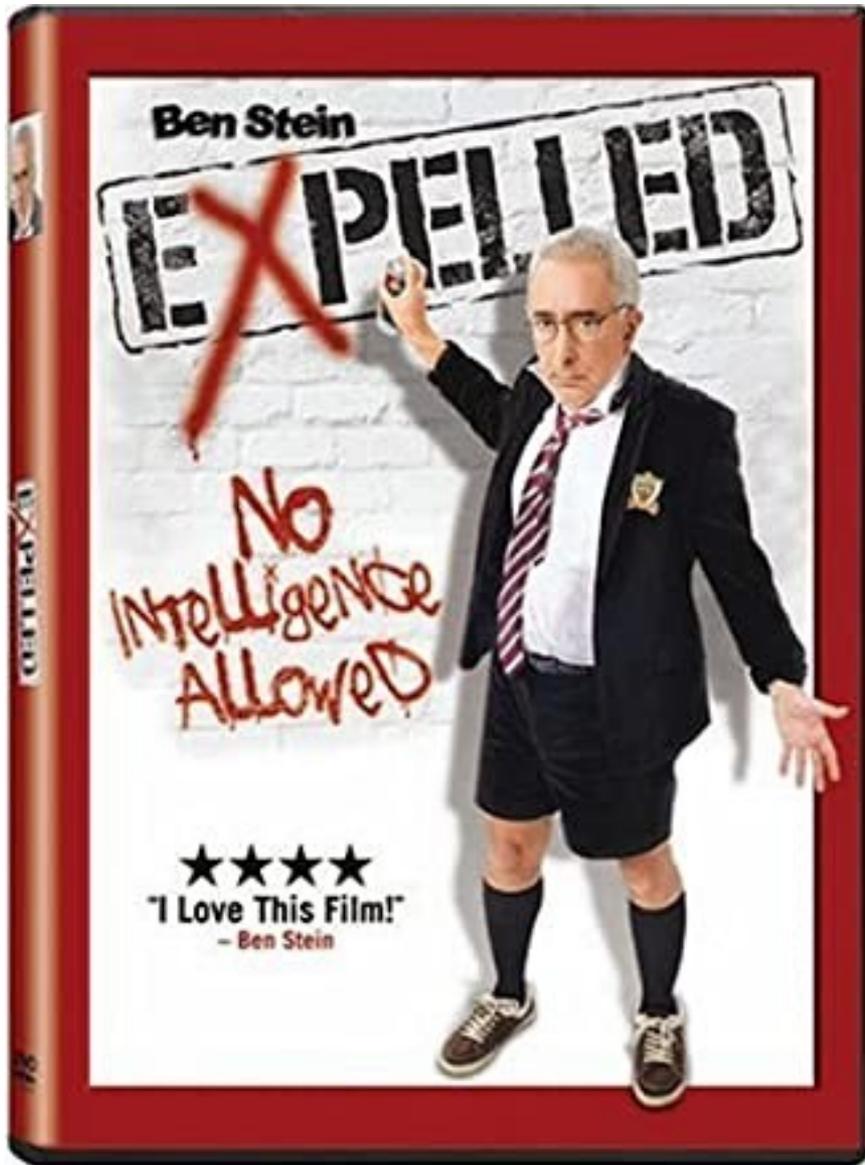
# **Suspicious teleologies**

# Intelligent design

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“Suppose I had found a watch upon the ground, and it should be inquired how the watch happened to be in that place; I should hardly think of the answer [..] that for anything I knew, the watch might have always been there. [...] There must have existed, at some time, and at some place or other, an artificer or artificers, who formed [the watch] for the purpose which we find it actually to answer; who comprehended its construction, and designed its use.”

William Paley, Natural Theology (1802)



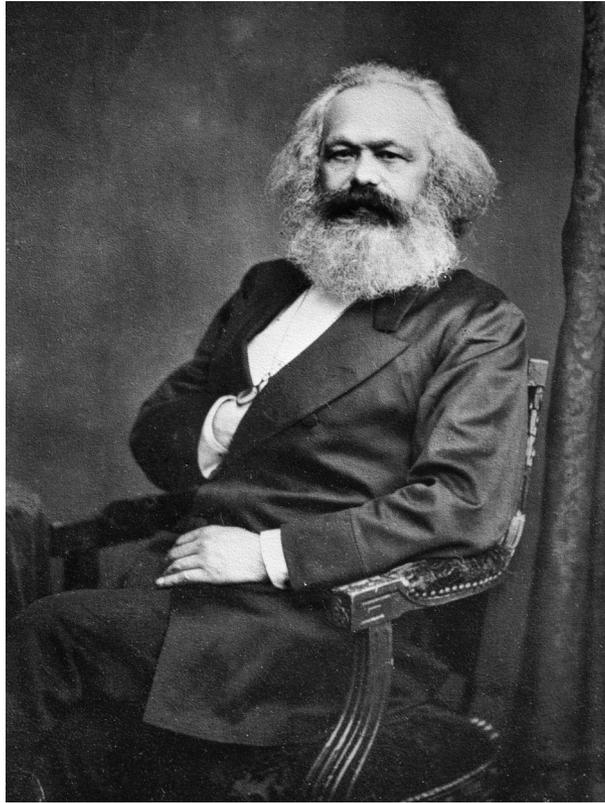
“A conspiracy-theory rant masquerading as investigative inquiry”

*The New York Times*

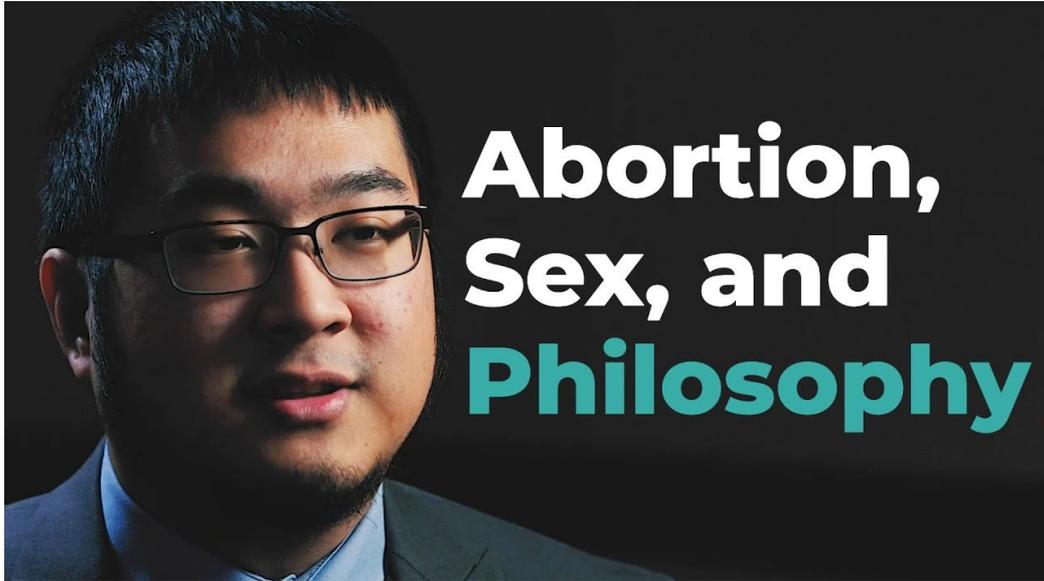
“A political rant disguised as a serious commentary on stifled freedom of inquiry”

*USA Today*

# The triumphant march of history



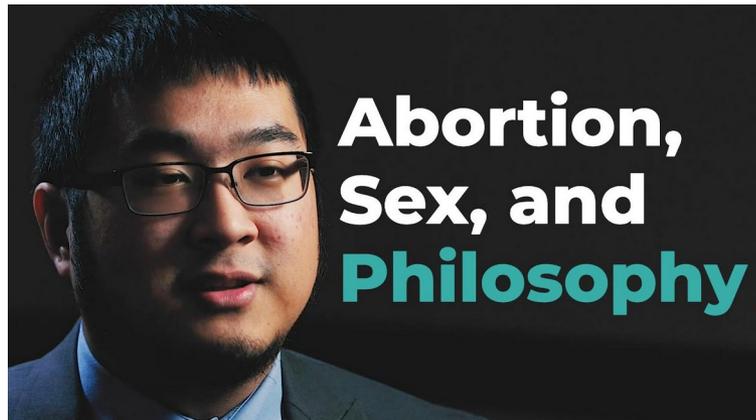
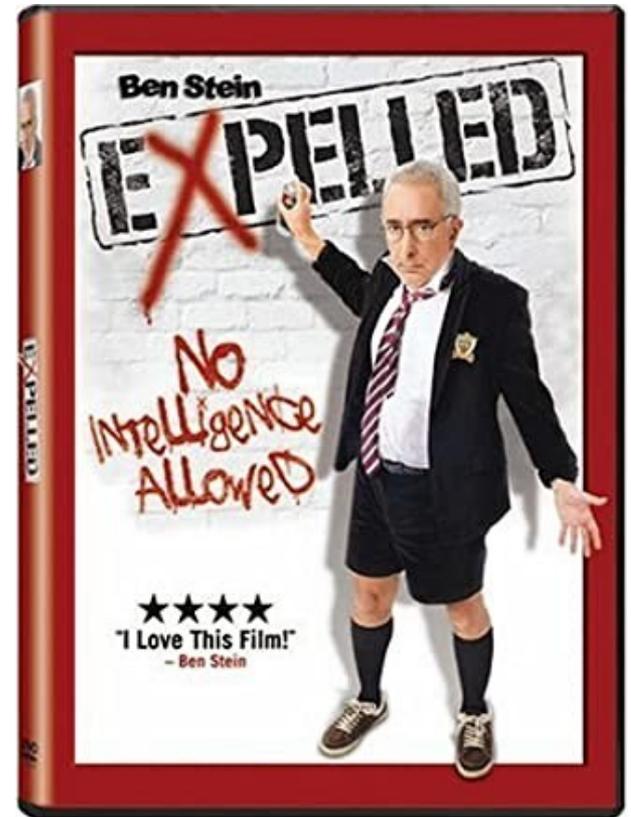
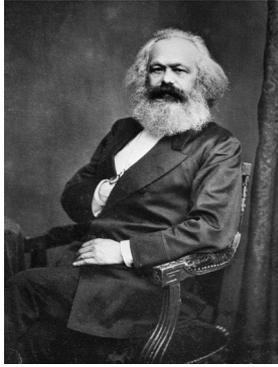
# Religious conservatism



Tim Hsiao

“Homosexuality, bestiality and any kind of non-marital sex are wrong because they misuse the proper function of our body.”

# Teleology today



**III.**

# **Debunking teleology**

- 1 Uneducated human thinking is instinctively teleological.
- 2 Teleology is associated with suspicious ideologies.
- 3 Teleology does not exist, according to modern science.
- 4 Therefore, it is safe to assume that teleological views of the world are the product of uneducated human thinking and is at least suspect.

# Debunking religion

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- 1 Uneducated human thinking is instinctively teleological.
- 2 The religious worldview is teleological.
- 3 So the religious worldview is the product of uneducated human thinking.
- 4 So the religious worldview is at least suspect.

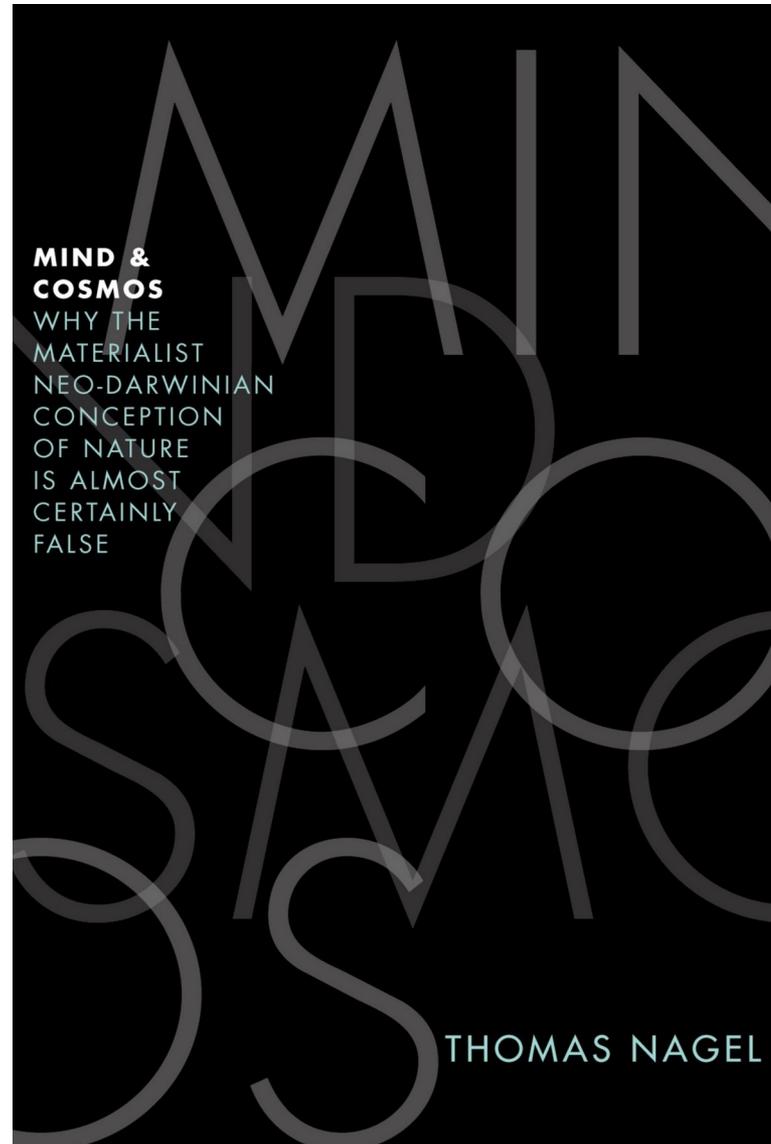
# “Promiscuous teleology”

“All men are born ignorant of the causes of things, and they all want to seek their own advantage, and are conscious of this appetite. [...] [T]hey find—both in themselves and outside themselves—many means that are very helpful in seeking their own advantage, for example, eyes for seeing, teeth for chewing, plants and animals for food, the sun for light, the sea for supporting-fish. Hence, they consider all natural things as means to their own advantage. And knowing that they had found these means, not provided them for themselves, they had reason to believe that there was someone else who had prepared those means for their use. [...] [T]hey had to infer that there was a ruler, or a number of rulers, of Nature, endowed with human freedom, who had taken care of all things for them, and made all things for their use.”

Spinoza: *Ethics*, appendix to part 1.

# Supernaturalism without God

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**IV.**

**Debunking debunking**

# The Handshake

Sally and Tom are leaders of rival political factions, and have recently decided to lay aside their differences. They have worked out all the details, signed all the official papers, and will now seal their deal with a public and historic handshake. To commemorate this historic event, a sculptor has been commissioned to sculpt the handshake. Sally and Tom together, while they are shaking hands, will be providing a model for the sculpture, which will be dubbed 'Unity.' Later that day, Andy and Liz—who were both present for the historic handshake—have a disagreement over whether Sally and Tom created a new object when they shook hands. Andy says that simply coming into contact with someone or something is not enough to create some new thing, and claims that Sally and Tom did not create a new larger object in the moment when they shook hands. Liz, however, disagrees. She thinks that when Sally and Tom came into contact in this case, they thereby created a new larger thing, made from Sally and Tom together, which served to provide a model for the sculpture. Who is right, Andy or Liz?

D. Rose, J. Schaffer (2015): Folk mereology is teleological

# The Rowboat

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John is an accomplished woodworker and sailor, whose lifelong hobby is building rowboats by hand. He built his first rowboat—which he named “Drifter”—30 years ago. It was an excellent rowboat: it was very stable, never let water in and sailed smoothly. But John was always thinking of ways to try and make the rowboat even better. And over the years, every single one of the original planks ended up being replaced. The end result, however, was not an improved rowboat. Rather the rowboat ended up being terrible: it was very rickety, always let water in and sank after just a few minutes in the water. Fortunately, John—never one to throw anything out—stored all of the original planks in his shed over the years. Last month John—realizing that he had accumulated enough old planks in his shed for a whole rowboat—took out his old plans for “Drifter” and assembled these planks exactly according to his old plans. This rowboat worked perfectly: it was very stable, never let in water and sailed smoothly across the water.

David Rose (2015): Persistence through function preservation

# The Rowboat

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So, John now has two rowboats of the same design: the rowboat originally built 30 years ago that has none of its original parts and works terribly as a rowboat, and the rowboat just built one month ago with all of the original parts from “Drifter”, which works perfectly as a rowboat. Two of John’s friends—Suzy and Andy [...] aren’t sure which of the two rowboats is actually Drifter. Andy thinks that the rowboat just built a month ago is actually Drifter, since it has exactly the same parts, arranged in exactly the same way as Drifter originally had and works perfectly. But Suzy thinks that the rowboat built 30 years ago with all of its parts completely replaced is actually Drifter, since, even though it has all new parts and is a terrible rowboat, this was just the result of John’s attempt to improve it. Do you agree with Andy or Suzy?

David Rose (2015): Persistence through function preservation

# Superglued mice

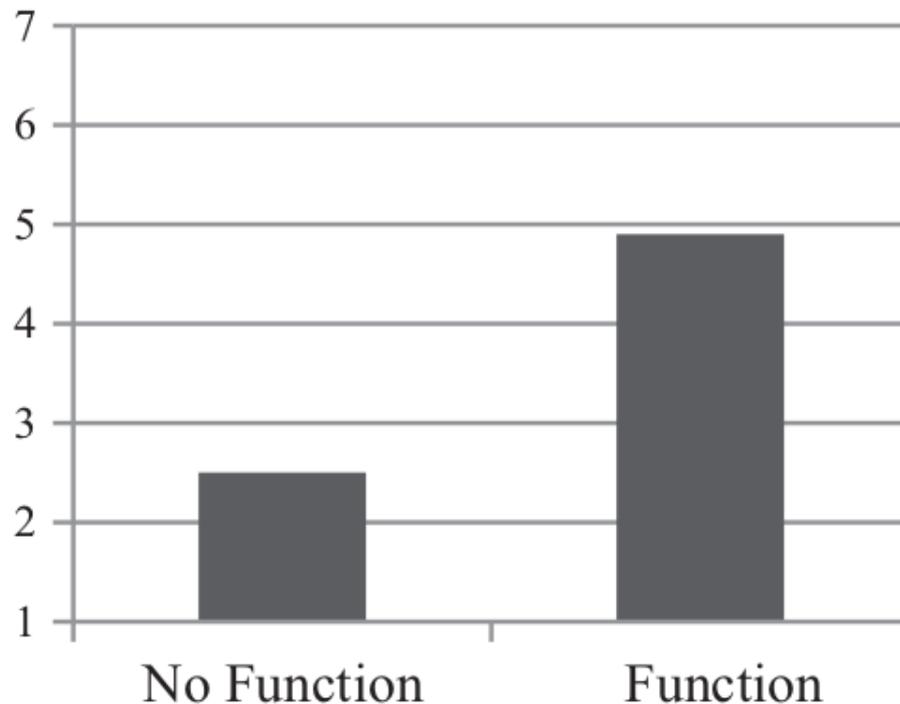
The FBI has commissioned Jones and Smith and given them the task of determining whether mice can be used to sniff out explosives. [...] For many months, Jones and Smith have been running the mice through various types of mazes, trying to determine how quickly and accurately the mice can find explosives. But they are having little luck: the mice are much slower and much less accurate than dogs in finding explosives. One day, Jones takes two mice and superglues them together. He runs a wide range of experiments and finds that when the two mice are superglued together they are both very fast and highly accurate at detecting explosives. [...] Jones thus thinks that he has created a new object, the 'Mini-Bomb Detector.' The next day, Smith and Jones have a disagreement over whether the arrangement of mice composes a new object. Smith claims that the arrangement of mice does not compose a new object at all. He claims that simply super-gluing some stuff together with some other stuff is not sufficient to compose a new object. Jones, however, disagrees. He claims that simply supergluing some stuff together with some other stuff is sufficient to compose a new object. [...] Who is right, Smith or Jones?

D. Rose, J. Schaffer (2015): Folk mereology is teleological

# The Handshake

Do Sally and Tom compose a new object?

(1 = definite no, 7 = definite yes)

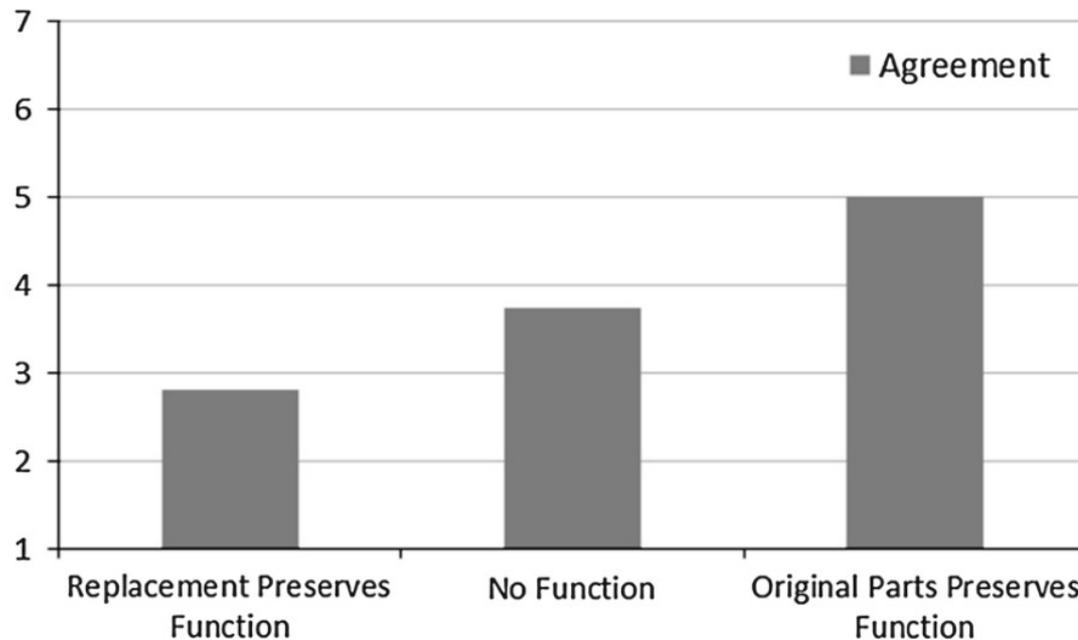


D. Rose, J. Schaffer (2015): Folk mereology is teleological

# The Rowboat

Is Drifter the old-planks boat?

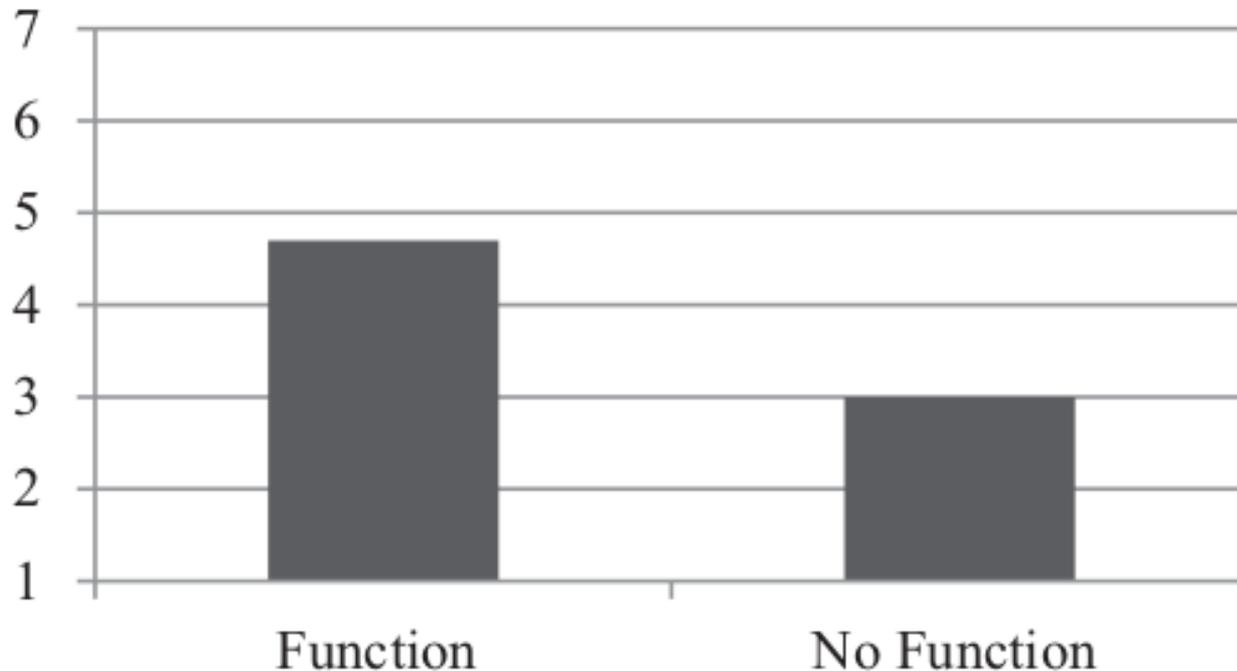
(1 = definite no, 7 = definite yes)



David Rose (2015): Persistence through function preservation

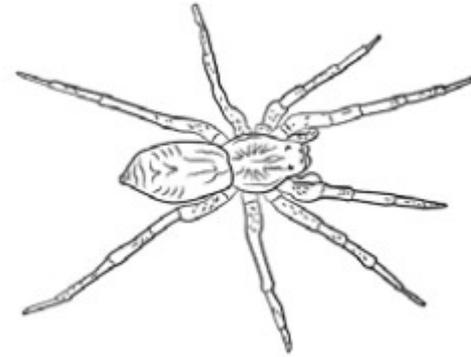
# Superglued mice

Do the mice compose a new object?  
(1 = definite no, 7 = definite yes)



D. Rose, J. Schaffer (2015): Folk mereology is teleological

# Teleological essences



D. Rose, S. Nichols (2019): Teleological essentialism

# Teleological essences

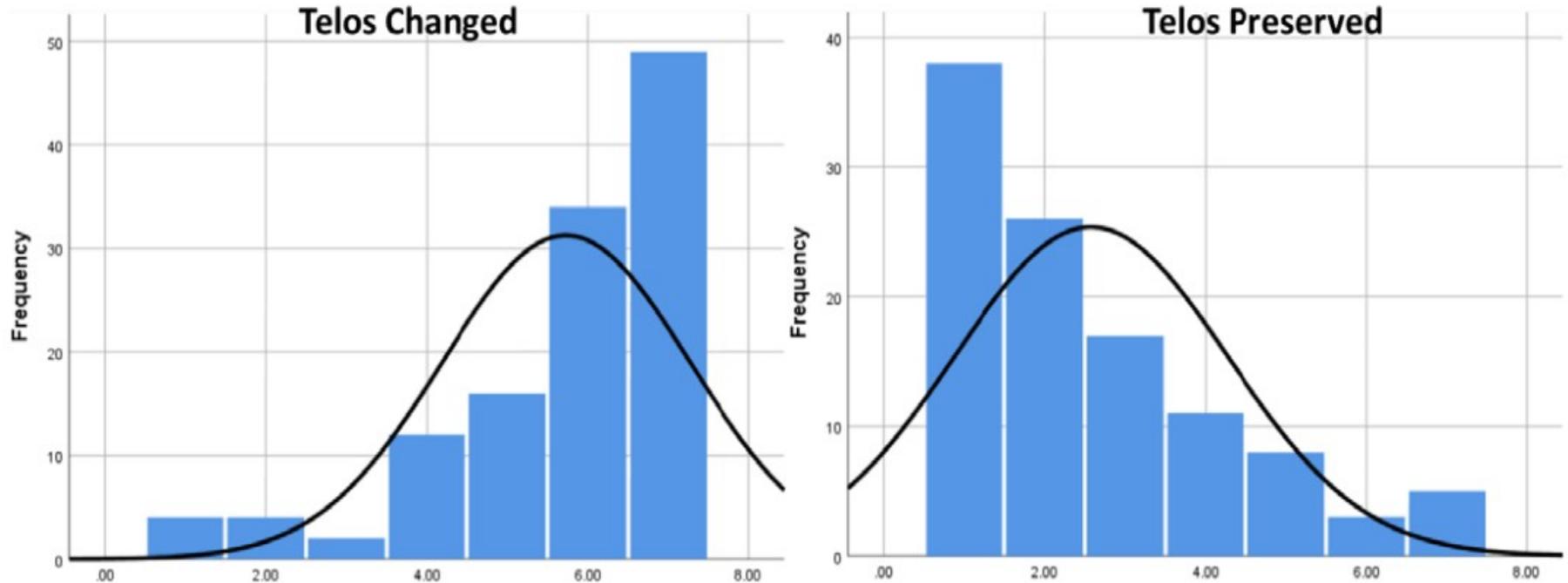


Fig. 1. Distributions in categorization judgments for telos changed and preserved.

D. Rose, S. Nichols (2019): Teleological essentialism

# **The folk has a teleological conception of...**

...biological essences

...part/whole relations

...persistence.

“Folk intuitions are tied into a  
benighted view of nature.”

# Types of teleology

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teleology

**subjective**

x is goal-directed for us

x has a function for us

**objective**

# Types of teleology

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teleology

**extrinsic**

x is goal-directed in  
virtue of y ( $y \neq x$ )

x has a function in virtue  
of y ( $y \neq x$ )

**intrinsic**

extrinsic

intrinsic

subjective



objective

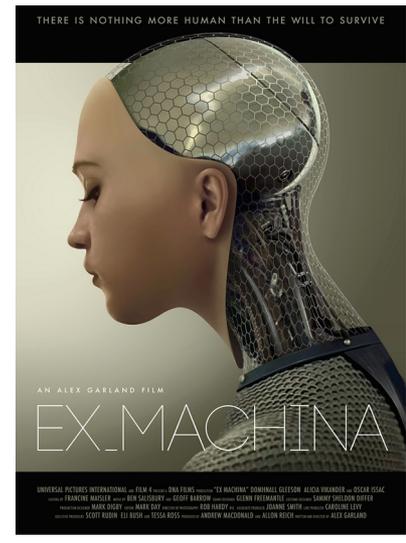
subjective

extrinsic



objective

intrinsic

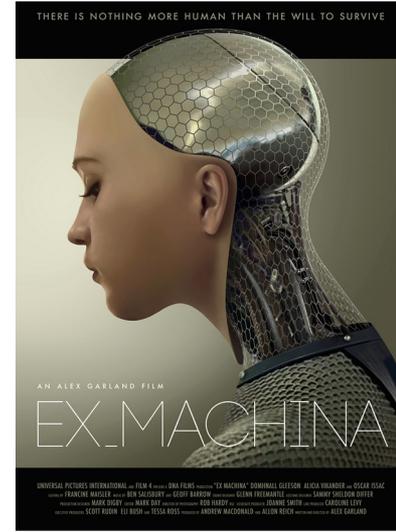


subjective

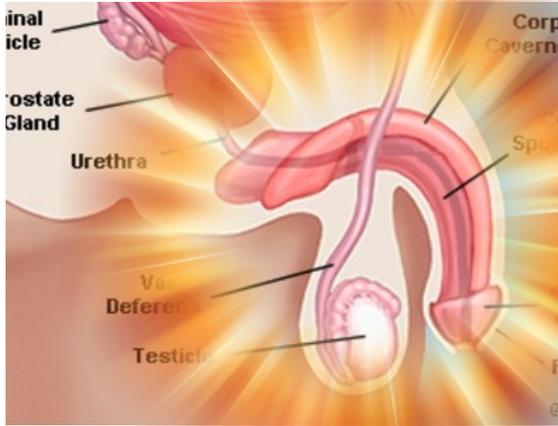
extrinsic



intrinsic



objective

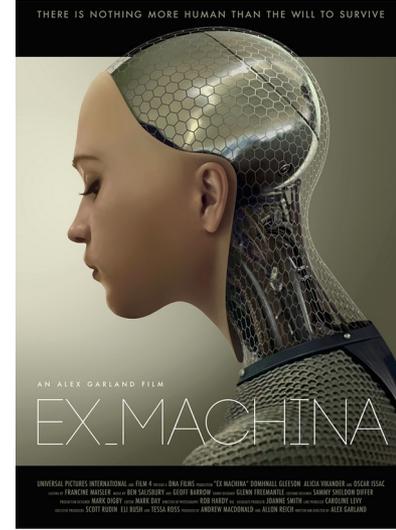


subjective

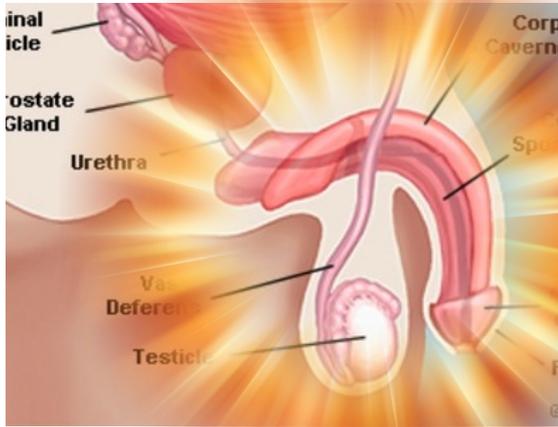
extrinsic



intrinsic



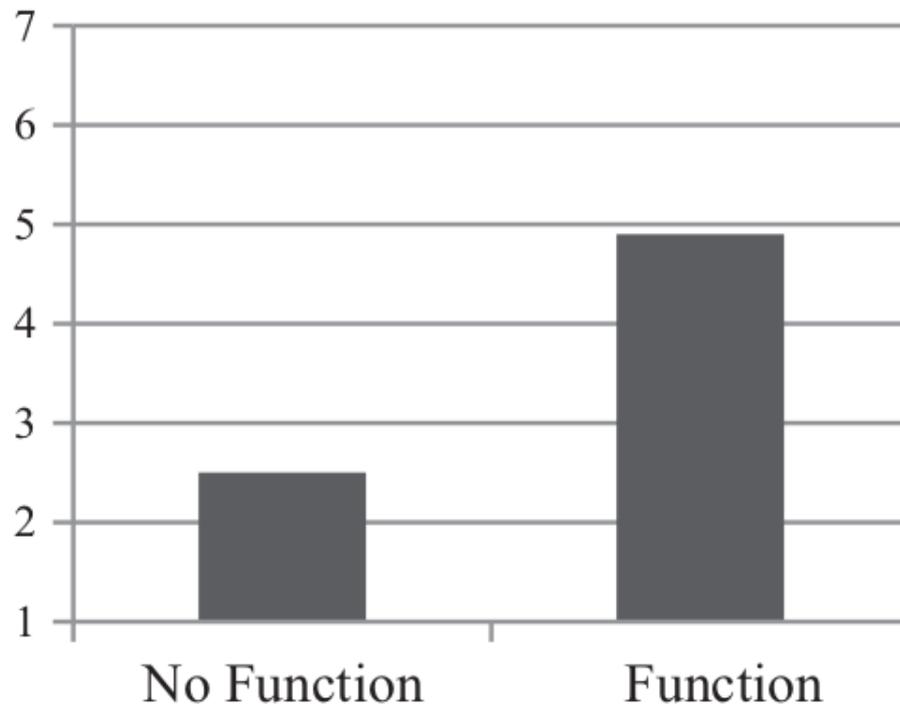
objective



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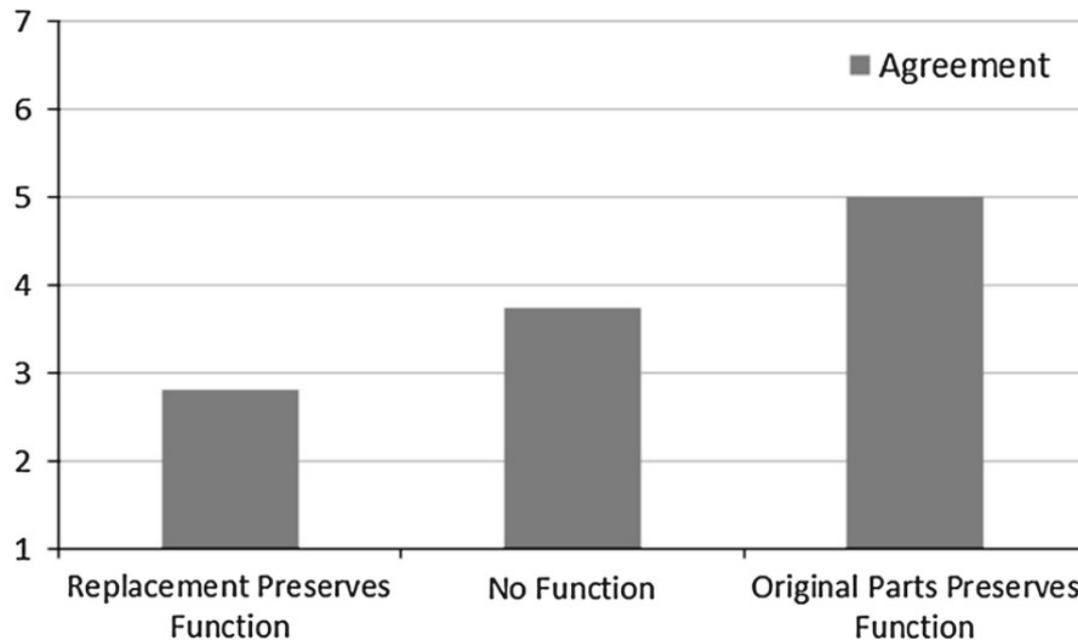


D. Rose, J. Schaffer (2015): Folk mereology is teleological

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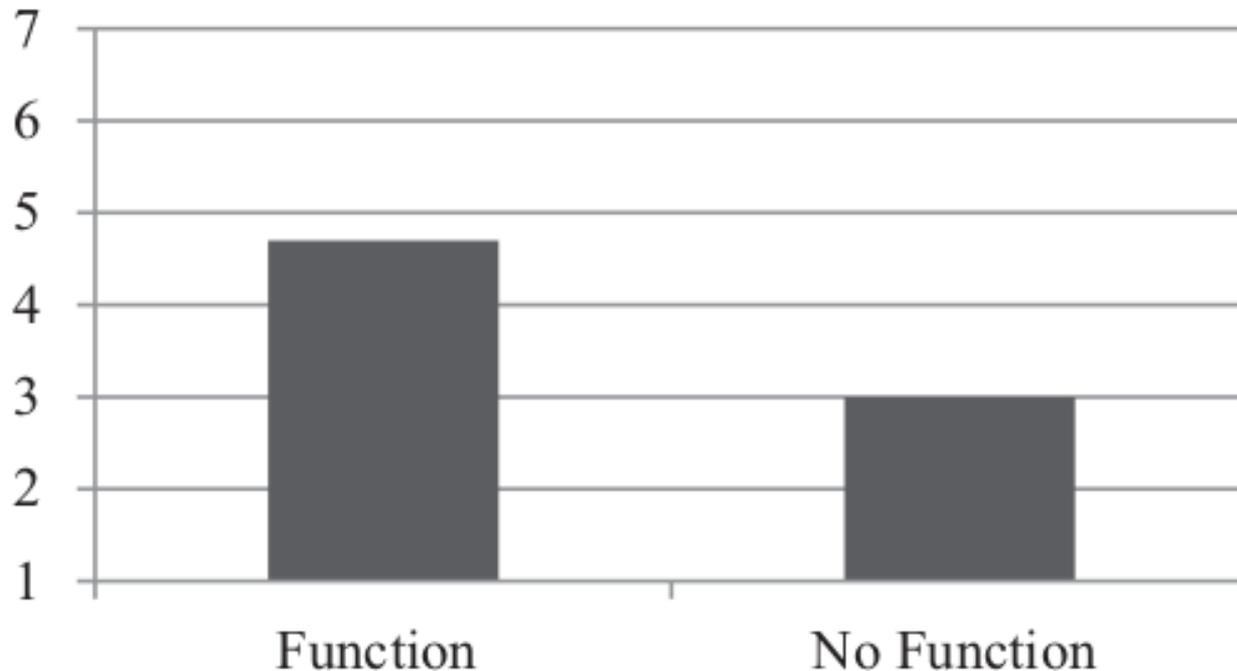
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David Rose (2015): Persistence through function preservation

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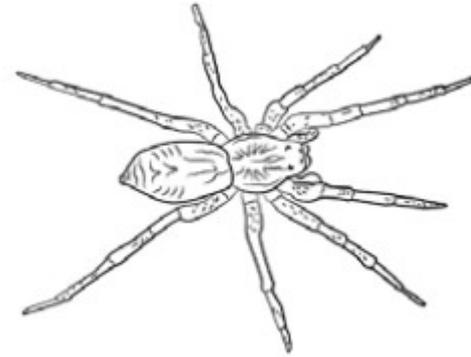
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# Teleological essences

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D. Rose, S. Nichols (2019): Teleological essentialism

# Debunking debunking

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- 1 These surveys cannot distinguish between subjective and objective forms of teleology.
- 2 If we are talking about subjective teleology, biological essences, mereology, and persistence can very well be teleological.

# Debunking debunking

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the function of x is to F =<sub>df</sub>

x is part of y and x's Fing helps y  
survive

e.g. the function of the heart is to pump  
blood

# Debunking debunking

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- 1 These surveys cannot distinguish between subjective and objective forms of teleology.
- 2 If we are talking about subjective teleology, biological essences, mereology, and persistence can very well be teleological.
- 3 Depending on what we mean by “teleology”, there could very well be objective teleology, in which case folk intuitions need not represent a distorting bias but can be seen as products of a fitness-contributing cognitive mechanism.