4 Intr	oduction to Philosophy
Recall that David Hume rejected the teleological proof because (1) it rested on a weak analogy betwand machines, (2) the assumption that goal-directed behavior must have been the product of intelligible the second of the secon	
How does Paley's proof answer both of these concerns?	
Just because Paley's use of abduction addresses some of Hume's criticisms does not mean it has no you think of any weaknesses that this proof might have? (Hint: we'll see one major concern next time	

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Introduction to Philosophy

Intelligent Design

The teleological proof attempts to establish the existence of God by arguing that all goal-directed behavior must have been the product of intelligent design. In his *Dialogues Concerning Natural Religion*, David Hume presented a version of this argument, which involved both induction and analogical reasoning. In that same work, Hume then presented criticisms of this argument.

The British philosopher and theologian William Paley (1743–1805 CE) was a contemporary of Hume's who sought to show that belief in God was rational. Indeed, Paley's *Natural Theology* sought to provide an alternative version of the teleological argument from design. While many readers, like Hume, presume that this argument proceeds by analogical reasoning, it actually does not. Instead, it is, at bottom, an abductive argument. So in order that we may better follow Paley's argument, we must first understand what this means.

Abductive Argument: A non-deductive argument in which a hypothesis or explanation is inferred from an observation. It is often known simply as *inference to the best explanation*.

We can visualize the general structure of abduction by using an argument diagram:

Notice that we use triple arrows to indicate that this is an abductive inference.

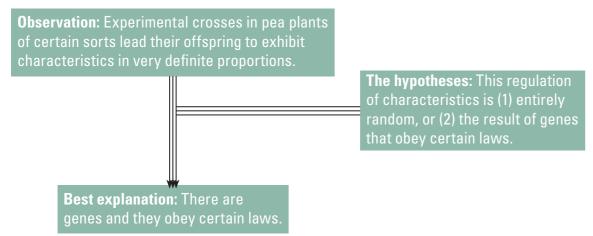
This form of argument is actually quite common in science. A classic illustration of abductive reasoning comes from the Austrian scientist and friar Gregor Mendel (1822–1884 CE) and his argument for the existence of genes. In his monastery in Moravia, Mendel conducted experiments with pea plants. During these experiments, Mendel observed that offspring would have the characteristics of their parents in very definite proportions. Mendel hypothesized that (1) all living creatures must contain particles (i.e., genes) that control their observed characteristics, (2) each parent contributes half of its genes to its offspring, and (3) this process occurs in accordance with definite rules. He thought that this story of genes provided the best explanation of his observation.

Why is this argument not inductive?
Why is this not an argument by analogy?

Why is this argument not deductive?

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Mendel's argument is instead an abductive argument, and here is the argument diagram for it:



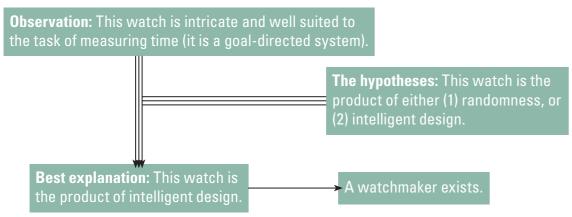
Now we can apply this method of argumentation to the teleological proof of God's existence. Recall that this argument is based on the crucial assumption that all goal-directed systems must be the product of intelligent design. We have seen this already presumed both in Saint Thomas Aquinas' "Fifth Way" from the *Summa Theologica* and in Cleanthes' argument by analogy from Hume's *Dialogues Concerning Natural Religion*. Instead of simply assuming the truth of this assumption, however, Paley applies abduction to justify it.

Paley begins by providing an abductive argument concerning the origin of a watch that he finds on a heath. He considers two hypotheses explaining the origins of this watch.

The Random Hypothesis: By the random action of winds and erosion, this watch was accidentally produced.

The Design Hypothesis: This watch exists because there was a watchmaker who produced it; it is the product of intelligent design.

Paley concedes that the random hypothesis might best explain a rock's origins, but that it is obviously the design hypothesis that best explains the watch's. We can diagram Paley's argument as follows:



Indeed, this reasoning does seem completely obvious, but why? Paley seems to appeal to a principle that helps one assess the strength of an abductive argument. We may call this the surprise principle.

Surprise Principle: For two hypotheses H_1 and H_2 , the observation O strongly favors H_2 over H_2 , if and only if

If H, were true, you would expect O to be true (i.e., O would not be surprising).

If H were true, you would expect O to be false (i.e., O would be surprising).

Can you explain why the surprise principle clearly favors the design hypothesis over the random hypothesis given the observation about the watch?

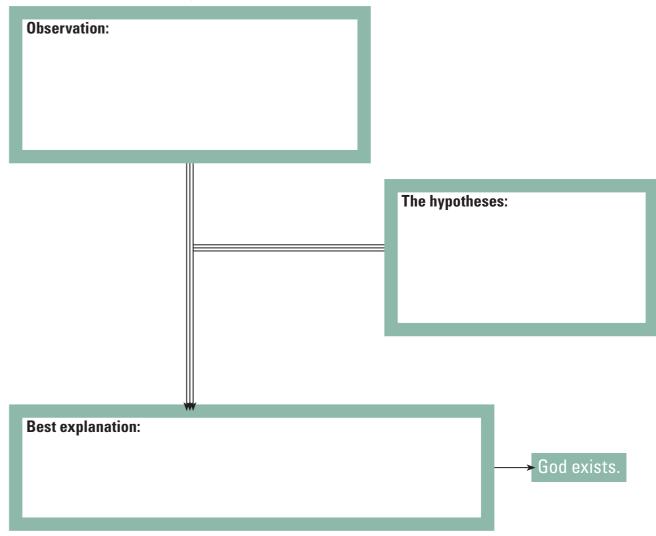
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Having demonstrated how abduction and the surprise principle work by using them to explain the obvious conclusion that watches are the product of intelligent design, Paley now uses the same sort of reasoning to prove that God must exist. He begins with an observation concerning organisms and postulates two hypotheses (similar to those concerning the origins of the watch) that might explain this observation.

The Random Hypothesis:

The Design Hypothesis:

With these, we can diagram Paley's argument as follows:



Why does same reasoning of the surprise principle apply here as it did with the watch?