

Locke UNLOCKED

A Look at John Locke's *An Essay Concerning Human Understanding*

SUBSTANCE
AND
SUBSTRATUM



Modelling the Idea 24K Gold Leaf / Imitation Gold Leaf



Photo: Cliff Landesman

The Philosophical Idea

“...the *nominal* essence of gold is that complex *idea* the word gold stands for, let it be for instance a body yellow, of a certain weight, malleable, fusible, and fixed. But the real essence is the constitution of the insensible parts of that body in which those qualities and all the other properties of gold depend.”

Bk III, Ch VI, 2

Real gold is different from fake gold. For someone buying a ring, it matters whether the ring is made of gold or of something that merely looks like gold. Today, we know that gold is a pure element, with 79 protons. Fake gold is made of a combination of other elements. It can look and feel like gold, but is not real gold. It is an imitation.

Locke did not know that the atomic nuclei of gold have exactly 79 protons. So he did not know what gold really is.

However, he could have pointed to a piece of gold and said:

Whatever has the same fundamental nature as this, I will call, ‘real gold’.
Whatever merely looks and behaves like this, I will call, ‘imitation gold’.

Some contemporary philosophers believe that we can discover from experience a thing’s necessary properties. Long after Locke wrote his *Essay*, scientists discovered the atomic nature of gold – what Locke would have called its real essence.

Explore the idea



Listen to the podcast

<https://visit.bodleian.ox.ac.uk/event/locke-unlocked#collapse3386681>



In pairs, copy and complete the table like the one below. You are exploring the word gold through connotation (negative and positive associations with the word) and denotation (the more literal definition). Share your ideas with the class.

What are the material properties of gold?	What does gold make you think of?
(Think about colour, weight, texture, strength, elasticity, fixed or malleable? etc)	(Consider how you might think about gold personally and how is it valued in society. What springs to mind?)



Discuss these questions:

- 1 How might an ordinary English speaker think about the properties of gold? Or a jeweller? How might a chemist think about the atomic properties of gold? How does Locke's idea of nominal essence and real essence link to his idea of primary and secondary qualities?
- 2 Consider the question 'can we discover by experience essential properties of a material like gold?' You might not think at first that you can discover an essential property in this way. The example of gold suggests we can. Compare these essential properties of bachelors: unmarried and male. We did not discover these properties of bachelors by observation. Are terms like 'gold' different to terms like 'bachelor'? Do some things have discoverable essences and others not?
- 3 Can you think of another example to explore this question?
- 4 Find out about Aristotle's ideas about essence. How far does Locke agree with his ideas?

Take it further



Read this article on testing and describing different materials. <https://explore.org/question-detail/could-we-live-on-another-planet#1704>. The article is part of the Oxplore question 'Could we live on another planet?'

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How can an understanding of Locke's ideas of nominal and real essences help scientists?

