

Theory of Knowledge Exhibition

To what extent is objectivity possible in the production and acquisition of knowledge?

Associated Theme: Knowledge and Perspective

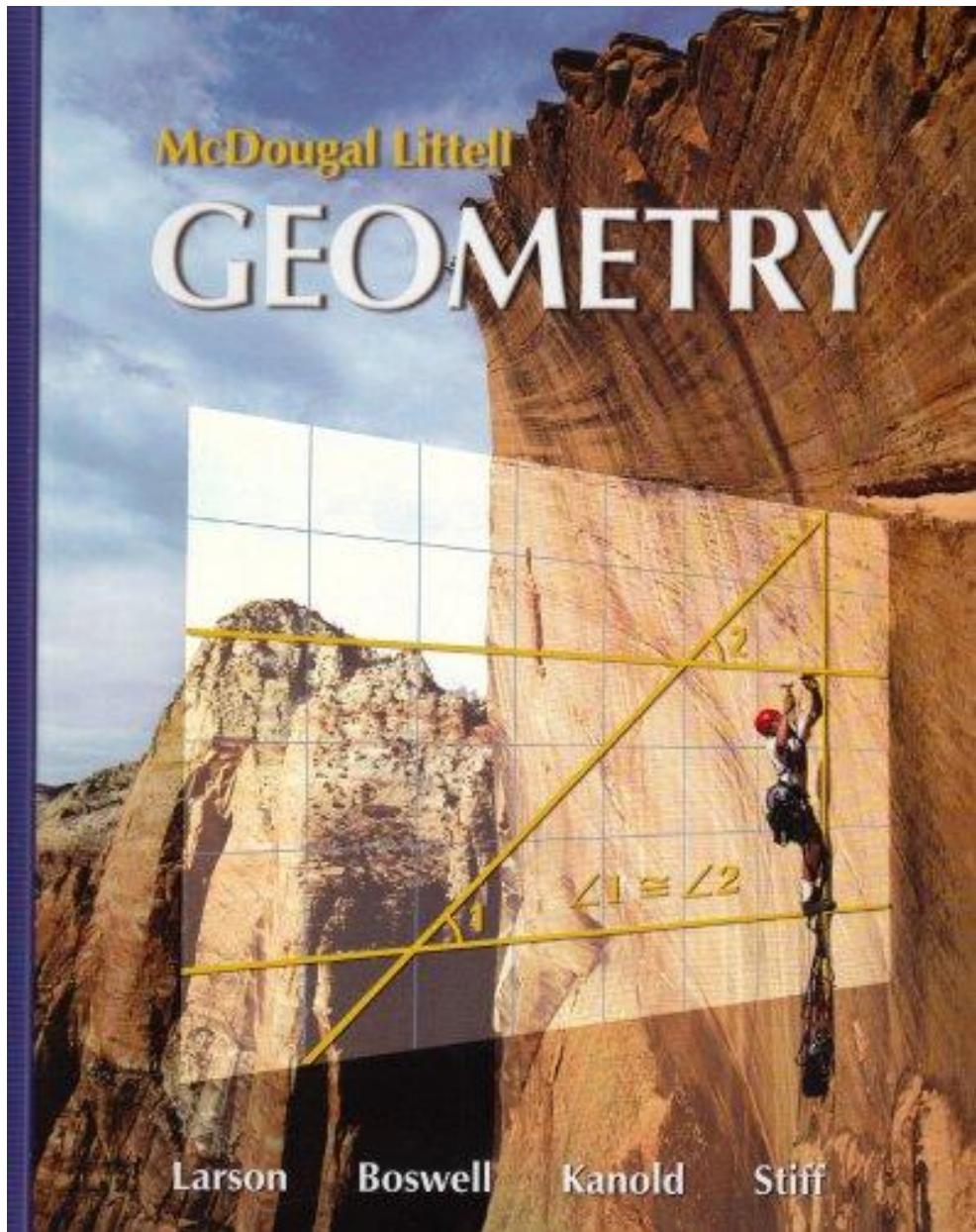
Candidate Code: jbd487

School Code: 001160

Date: 4/20/21

Word Count: 950

Objectivity, the concept that something can be regarded as an absolute truth only if it is completely separate from bias and sentient interpretation, can be attained to a limited extent in the production and acquisition of knowledge as almost all areas of knowledge can be influenced by personal interpretation, except for mathematics.



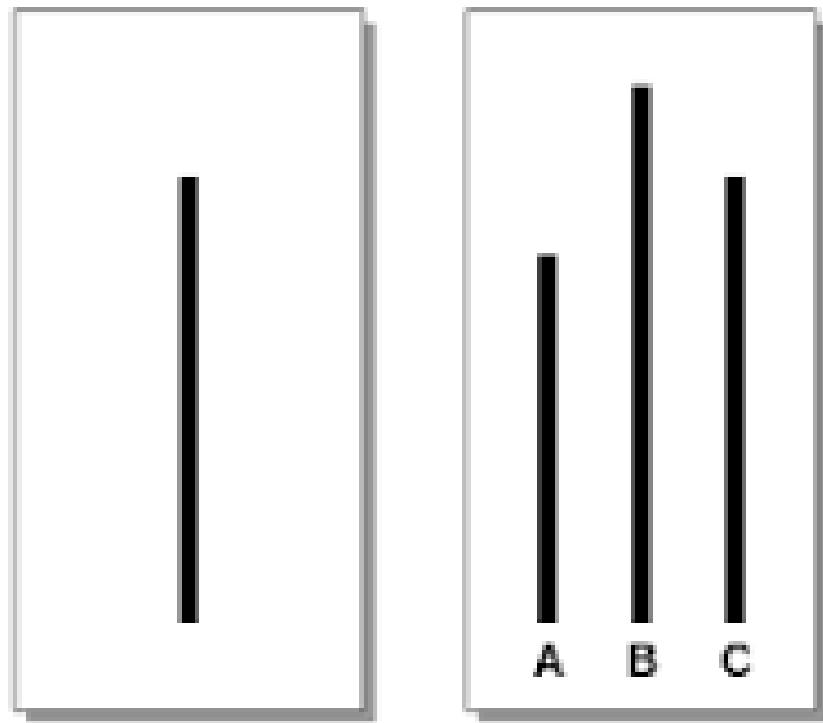
The first object is a Geometry textbook written by the well established company McDougal Littell. Used in schools across the country, I used it myself in 8th grade.

Demonstrating the possibility of objectivity in the production and acquisition of knowledge, the textbook exposes key mathematical concepts independent from personal interpretation. Pythagorean's Theorem, a key concept in the textbook, states that the sum of the square of two legs of a right triangle equals the square of the hypotenuse. The production of this fundamental theory is independent of bias, as it makes no difference whether the Greek mathematician Pythagorean produced this formula or a Roman mathematician; the square of the two legs of a right triangle always equals the square of the hypotenuse regardless of personal background. Depicting 367 verifications of the Pythagorean Theorem conducted by people from different eras, cultures, and backgrounds, the Pythagorean Proposition demonstrates the theorem's objectiveness, since every mathematician arrived at the same principle despite personal differences. Although the naming of the theorem and the usage of letters a, b, and c to represent the sides

are dependent upon cultural mathematical language and therefore susceptible to bias, the basic principle behind the theorem is independent of these elements. In terms of acquisition, the same holds true; people can interchange the name of the theory and the labeling of the sides of the triangle, but the basic concept behind the theory leaves no room for personal interpretation.

This object best demonstrates the possibility of objectiveness in the pursuit and acquisition of knowledge since it is a Geometry textbook, and mathematics is one of the only subjects where objectivity is possible.

Geometry is better than other mathematical subjects since geometry focuses on formulas and theories such as Pythagorean's theorem, which best illustrate mathematical impartiality.

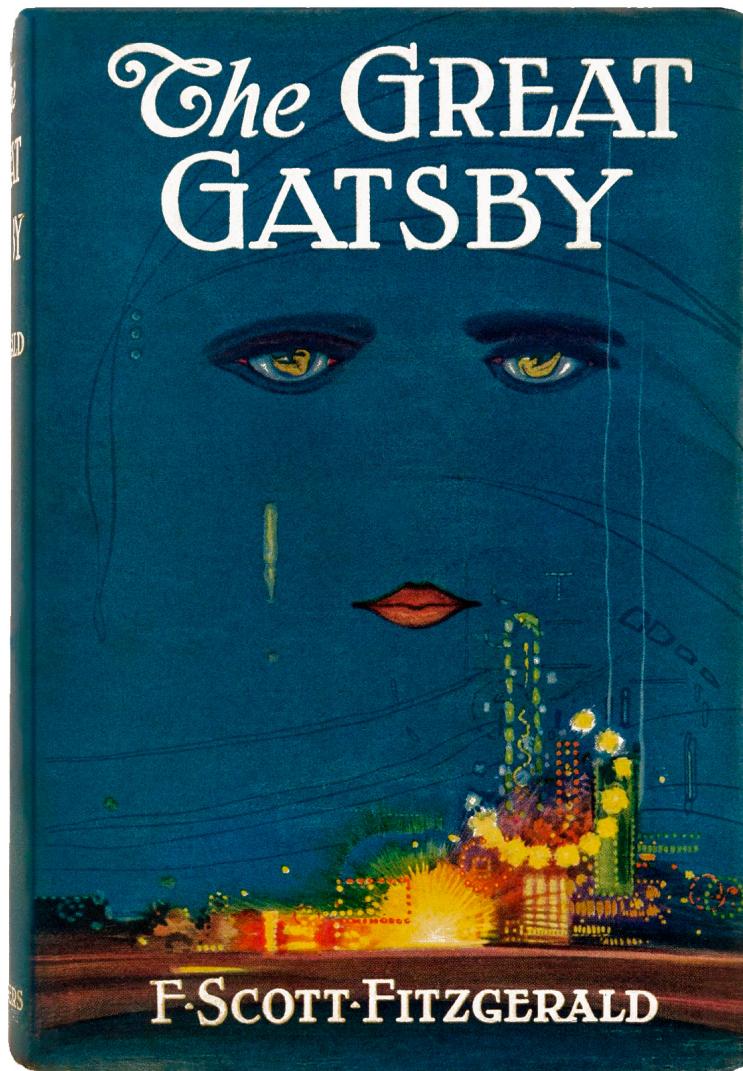


My second object is the image experimenters presented to participants during the famous Asch conformity experiment. Conducted during the 1950s to investigate the effects of conformity on human behavior, the experiment required researchers to present participants with a line in one photo and 3 in another and ask them to identify which of the 3 was the most similar to the first line. They also instructed 5 of the 6 participants to purposely give the same wrong answer, since they were testing whether the last participant would conform to the wrong answer. More often than not the participant would conform, proving how people will conform to the majority even if the majority is wrong.

This clearly identifies the human inclination for bias; faced with truth or conformity, most people choose conformity. The biased nature inherent in humankind reveals the irrationality of objective knowledge - any area of field that requires human interpretation or analysis becomes subject to bias due to humans' disinclination for truth as demonstrated in the Asch experiment. This can affect the production of knowledge as experiments, research, and studies are conducted by humans, making them subject to biased decisions, such as how the Asch experimenters ignored the important factors of race, gender, class, and group size. The acquisition of knowledge is also biased since the Asch experiment demonstrated that when interpreting a situation, most people exhibit distortion of judgment, meaning that participants believed that they were somehow misinterpreting the stimuli and the majority was correct. Clearly, the acquisition of knowledge is not objective since people will often cater to the majority despite personal inclinations towards a different answer. Since there are clearly more important elements to humans than truth, objectivity is practically impossible to achieve in fields outside of mathematics.

The Asch experiment is the best object to demonstrate the impracticality of attaining objectivity in both the acquisition and production of knowledge since the experiment clearly reveals bias in the production of knowledge as the experiment ignored several important factors and their possible implications on the

results of the study and acquisition of knowledge there are many biases that prevent humans from arriving at the truth, such as conformity.



The last object I chose was the novel *The Great Gatsby*, which I read in junior year. This book is extremely well known, Fitzgerald, the writer, is highly regarded as a prolific writer, and it is a required reading for most high school students.

The novel reflects how creative works, in addition to scientific fields, are subject to personal prejudice. Although a work of fiction, the novel incorporates several elements from Fitzgerald's personal life. Both the main character, Gatsby, and Fitzgerald joined the Army, fell in love, and attempted to gain materialistic success to impress their lover. Furthermore, the setting of the story contains many similarities to the Roaring Twenties that Fitzgerald himself grew up in, as seen through the superfluous, extravagant and materialistic lifestyles found in both worlds. These similarities demonstrate how even creative works are not inseparable from personal experience and subsequent bias. The acquisition of knowledge is also prone to bias, since literal elements are open to interpretation. The Green Light found throughout *The Great Gatsby*, for example, can be interpreted as symbolizing materialistic wealth, hope, or Daisy depending on individual perspective.

The Great Gatsby is the best choice to answer the prompt since millions of people have read the book, it demonstrates the bias of the production of knowledge through the close similarities between Fitzgerald's personal life and the lives of his characters, and the bias of the acquisition of knowledge through the ambiguous nature of the novel.