



## Research Paper

# Metaphysical or physical foundations of empirical judgments in Aristotelian logic, Hume and Kant

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## Abstract

Science and philosophy have always been concerned with universal, comprehensive, and intersubjective judgments. One of the fundamental issues that has been raised since the beginning of the history of philosophical thought is how to achieve universality, certainty, and validity of scientific judgments and empirical laws. Great philosophers such as Aristotle, Hume, and Kant have each responded to this issue with their own approaches and epistemological foundations. The present study examines their views on the foundations of empirical judgments using an analytical and critical method, and shows that Aristotle's view is based on metaphysical foundations and Kant's on physical foundations, which has led to the acceptance of the necessity and universality of empirical judgments in their perspective. In contrast, Hume, who lacks such metaphysical or physical foundations, does not accept the universality and necessity of empirical judgments. The explanation of these theories shows that the point of support for these philosophers in giving universality and certainty to scientific laws is the principle of causality. However, each of them has a different view of the principle of causality based on their specific philosophical foundations, which has led to differences in accepting the necessity and universality of empirical judgments. This study emphasizes that a precise understanding of the assumptions and intellectual foundations has played a decisive role in understanding how empirical judgments are formed and validated in the eyes of these philosophers, and has led to a better understanding of the causes of agreement and disagreement in their philosophy.

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## Extended Abstract

### 1. Introduction

Science and philosophy have always been concerned with general, comprehensive, and intersubjective judgments. One of the fundamental issues that has been raised since the beginning of the history of philosophical thought is how to achieve the universality, certainty, and validity of scientific judgments and empirical laws. Great philosophers such as Aristotle, Hume, and Kant have each responded to this issue with their own approaches and epistemological foundations. The present study examines their views on the nature and foundations of empirical judgments using an analytical and critical method.

This article shows that Aristotle and Kant, who both believe in the solidity and generalization of sensory perceptions, accepted this view based on different philosophical foundations. That is, Aristotle's view is based on metaphysical foundations and Kant's on physical foundations, which has led to the acceptance of the necessity and universality of empirical judgments in their perspective. In contrast, Hume, who lacks such metaphysical or physical foundations, does not accept the universality and necessity of empirical judgments and has an indeterminate attitude towards the universality of laws.

Aristotle and his followers also accepted that many empirical judgments are acquired by induction, although the observer does not know that he/she has acquired that judgment through induction. However, from the perspective of Aristotelian logic, incomplete induction is not capable of providing certain knowledge, because it is possible that the things that are not induced are contrary to

the things that are induced, and contradictory cases are found.

This is why, in Aristotelian logic, induction alone has no validity unless it is transformed into experience by the principle of "al ettefaghi". But can the principle of "al ettefaghi" really be considered an obvious principle and rule and be considered a solid support in transforming induction into a definitive certainty? This issue seems to have been of concern to Aristotelian logicians themselves.

There is an implicit, fundamental, and effective point, and in fact the support of Aristotle and his followers in presenting this theory, which is their metaphysical basis. This basis: "the world of nature is created and governed by a wise creator and regulator". It is on this basis that the future cannot act contrary to the past and, accordingly, nature must necessarily act uniformly. The principle of uniformity of nature, which is a physical assumption, can be valid in his opinion only when it has a metaphysical support; and this support in Aristotle is the ultimate divine wisdom, and the fruit of this wisdom is the order that governs the entire universe.

Hume's view of induction and sense, and of the knowledge of facts in general, is also concerned with the discussion of causality. According to him, all evidence concerning facts is based on the relation of cause and effect, and our knowledge of that relation is derived entirely from experience. And all our empirical results are based on the assumption that the future will correspond to the past. That is, all empirical arguments are based on the assumption that the similarity we discover among natural objects leads us to expect effects similar to those we have hitherto observed. Hume says that I want to know



the basis of this inference, and to investigate the reason for expecting similar effects from similar causes.

Hume takes a psychological approach to his problem. The result of his investigation into nature and the human soul is that the acceptance of this principle (the uniformity of nature) is a psychological belief or association of meanings. Kant commented on Hume's analysis that his analysis of causality was very confused. He admitted that if the form and content of scientific laws were, as Hume insisted, derived entirely from sensory experience, then there was no escape from accepting Hume's conclusion.

Kant, with his Copernican revolution, considered the concepts of necessity and causality to be among the categories of understanding. From the perspective of theory, these concepts appear and emerge in the judgments issued by reason. And since there is nothing beyond them from which they can be deduced, they are called principles. The essential point is that these principles of possible experience are also the general laws of nature. The laws of nature are the same laws known in Newtonian physics, and Kant sought to apply the method of achieving those laws in his philosophy.

## 2. Conclusion

In order to explain, analyze and criticize the foundations of empirical laws in the thought of these three philosophers, this research believes that Aristotle, with the help of his solid metaphysical support, speaks with certainty of the "discovery" of certain laws.

However, Kant, with the support of Newton's physics, introduced these laws, which have been expressed in synthetic *apriori* judgments, as valid and certain for mankind. However, he also considers this understanding to be a special understanding of mankind, which enjoys a kind of human relativity (understanding of phenomena) as opposed to true science (knowledge of noumena).

Hume, who essentially accepts such assumptions neither in the form of Aristotelian metaphysics nor in the form of Kantian physics, necessarily believes that these laws do not have definitive and certain validity. Nevertheless, he inevitably considers this same science as the solution to many of man's empirical problems, which solves some of man's problems in an uncertain and unnecessary way, and to that extent it is valuable and valid.