

# The Abductive Method to Generate Polymath Knowledge in Technical-Scientific Production



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## Abstract

The current generation has a series of technological tools that facilitate multivariate analysis, both qualitative and quantitative, inferring using inductive and deductive methods interchangeably, that is, applying the abductive method to propose solutions to transgenerational problems is a responsibility of the Anthropocene era, responsibility inescapable.

**Keywords:** Abductive; Polymath; Technology; Technical-scientific

## Opinion

The abductive method is one of the three scientific methods used by ancient philosophers to construct answers to questions of how, why, and for what. According to the cessation of the use of the method, it was because it requires a greater demand for attention and time, to generate a possible universal good. Authors such as Pierce (1997), have made a series of approaches to understand, interpret and try to conceptualize the system of construction of abductive thought. Image 1 it shows the development of the technical-scientific "Polymath" construction, that is, accumulating various knowledge in a proposal, which is expected to be the most successful, if not the approximation of that certainty or wisdom.

The cognitive process begins when a research entity (person or group of people), are attracted and seduced by a phenomenon or thing, when trying to explain the phenomenon "the thing" becomes the object of study, which is subjected to explanations and interpretations of the sciences, whether these of a social nature, or of the hard or positive sciences [1-4]. The demonstrations are the product of analysis by inductive, deductive methods and even a mixture of them, which are united by using qualitative and quantitative techniques and procedures to generate a possible universal good. Applying the abductive method analyzing many dependent and independent variables at once, a few years before Christ in the time of Aristotle, Plato, Hermogenes, was also laborious extremely slow would require a lot of time to obtain in the end "a possible" universal good, another difficulty of applying

the method was to stay focused (Figure 1).

For example; If the hand were the object of study the procedure proposes to decompose the elements (the fingers or part of them) to know their usefulness, the research would be so exciting that it would be very easy to focus on that part of the hand forgetting that you had to join your fingers to know the benefits of the hand, and the hand of the body, the body of the family, the family of society and the environment where it operates, and more [5-8].

However, history relates the success of some people recognized as polymaths, accumulated various knowledge by listening to the "wise" experts, specialists in different arts, sciences, and disciplines, were attentive to recognize and value the other people who served as counselors to achieve their victories. In the era of the Anthropocene, it is urged to build inter and multidisciplinary solutions, or better yet inter and multi "knowledge" this last conceptualization brings together local knowledge and unites it with the specializations of the sciences to generate abductive, polymath proposals.

The use of large amounts of information contained in the texts, can be analyzed and interpreted with the use of free software such as IRaMuTeQ, on-line queries with immediate response can be generated with Mentimeter, and quantitative analysis can be performed with thousands of variables using SPSS Statistic, when the results are put together, they can be interpreted to obtain the answers that facilitate decision making.

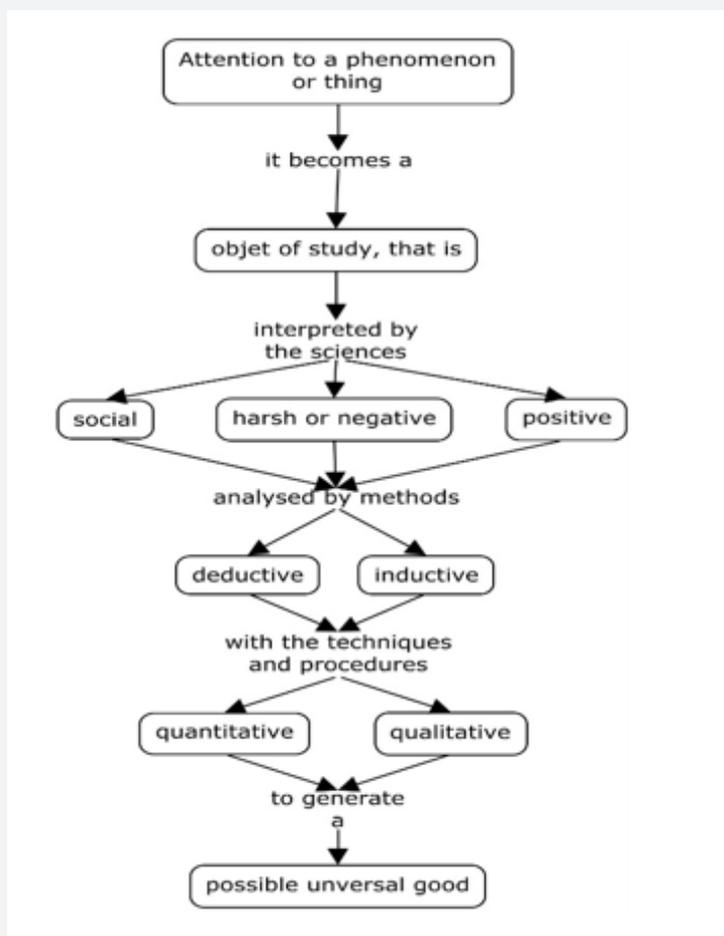


Figure 1: Conceptualization of the abductive method.

In my opinion, our generation cannot avoid the transgenerational resmulti-knowledgesing solutions to inherited problems, leaving a better path for future generations, especially considering the multiple tools that facilitate applied multivariate analysis that can grow in its application in all areas of knowledge, and with greater intensity in multidisciplinary works, or better yet in the multi knowledges.

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