Cybernetics Applied to Plato's Theory of Forms: An Experiment

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ABSTRACT

A short but essential part of Plato's dialogue Phaedo, where Socrates introduces his "second voyage", is used in this article for a textual experiment in which a few original concepts are substituted with the cybernetic term "operation". The aim is to create an argumentation supporting and enriching Radical Constructivism as well as obtaining a source of inspiration for further developing it. After a short overview of the background to the experiment (research problem), we present the two foundations on which it is based: Kant's Copernican Revolution and Silvio Ceccato's Operational Methodology. We then introduce the method of the experiment and show its application to Plato's text (= modified dialogue). Finally we present our findings, discuss their meaning and implications and suggest future directions for this research.

Keywords: Cybernetics**,** Radical Constructivism, Copernican Revolution, Operational Methodology, Theory of Forms.

1. INTRODUCTION

In this article, we present and discuss a textual experiment[1]: a remake, in cybernetic terms, of a short but essential part of Plato's dialogue Phaedo where Socrates introduces his famous "second voyage" . The selected part has a length of less than 1,600 words and the remake is limited to substitution of a few terms, which generates a difference of only about 4% of the word count.
The cybernetic terms are a few variations on the concept of "operation". The experiment allows Plato to be connected with two essential fondations of von Glasersfeld's Radical Constructivism: Kant's Copernican Revolution as the central hypothesis of his theory of mental activity [2] and Silvio Ceccato's Operational Methodology as a cybernetic approach to modeling the mind [3, 4, 5, 6, 7]. Thus Plato's theory is transformed into an argumentation supporting and enriching Radical Constructivism [8] and could also be used as a source of inspiration for further developing the innovative approach to knowing and learning that von Glasersfeld elaborated during the last third of his life.

7. CONCLUSION

Things are "things" only in our *experiential world*. Here they are caused by our own mental operations and we know them if and only if they are *viable*.
This *viability* is how it is best for things to be, this viability is how objects conform to cognition: a *complete revolution*, recently described in cybernetic terms [18, p. 52-53].

In Plato's time, revolutionary ideas were dangerous: Socrates went on trial for his ideas, was found guilty and sentenced to death! But Plato was a clever man: he made his Theory of Forms unthreatening and acceptable by disguising concepts as gods (godlike entities which are timeless, absolute, unchangeable and true), he made it immortal by binding it to the problem of immortality and he presented it in the context of Socrates' death: was this a tip for the reader that he had to hide something in order to avoid death by drinking hemlock?

Did Plato try to hide what Kant discovered 2000 years later? That in order to make progress in our knowledge theory, we need to conduct a *second voyage* in search of the cause of things: give up investigating objects, have recourse to thought by supposing that objects must conform to our cognition and examine in the "things" of our experiential world their viability. This would indeed be an interesting direction for future research.

8. REFERENCES

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[1] Further development of a previous textual experiment [1].