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LOGIC AND PHILOSOPHICAL ISSUES: AN AXIOMATIC APPROACH TO THEODICY

Gesiel B. da Silva*, Fábio M. Bertato.

Abstract

The aim of this research was to study by the means of Formal Logic the Edward Nieznański's "Axiomatic Approach to the Problem of Theodicy" as an introduction to formal methods and its relations with philosophical issues.

Key words:

Formal Logic, Problem of Evil, Theodicy.

Introduction

Logic is the area of Philosophy which studies the methods of inference, establishing conditions for the reasoning¹. It consists in a powerful tool by which it is possible to analyse and clarify propositions within philosophical problems, avoiding ambiguities proper to natural language and misinterpretations.

One problem which is currently discussed through the use of formal methods is the Problem of Evil, discussed in the context of its logical counterpart, which is dealt as a problem of inconsistency between both the existence of God and evil. While some authors deal with questions regarding inconsistency of theistic defences², Edward Nieznański, an important Polish logician and philosopher, brings a formal axiomatic approach based on Leibniz's Theodicy and Aquinas' works³.

Results and Discussion

We began our research with the study of Mathematical Logic. Through seminars conducted by the supervisor, we have studied the definitions of rules of inference, statement connectives, predicates and quantifiers. We have studied also the definition of axiomatic theory, as well as the predicate calculus and an introduction to first order theories, through the extensive study of Margaris (1990)⁴ chapters 1, 2 and 3. Through the study of these topics, the student acquired experience with both the statement and the predicate calculus and the formalization of arguments.

The second part of our research was to study (both individually and in seminars with the supervisor and other students) Nieznański's "Axiomatic Approach to the Problem of Theodicy", published in Polish (Nieznański, 2007), in which he develops a complete formal system, bringing a theistic axiology by which he precises and solves inconsistencies within the problem.

Nieznański begins with the definition of the properties of God. The author uses a dual-band calculus, where variables p , q and r stand for situations, and variables x , y and z stand for people; ε means "is" and β refers to "God" (ibid., 202-203). He defines initially two basic concepts: "to want" ($x Cp$ means "x wants p") and "to know" ($x Wp$ means "x knows that p"), as well as the properties of omniscience (WW), infallibility (NM) and omnipotence (WM) according to Thomistic philosophical tradition, deriving that God satisfies these three properties (respectively, $\forall p (p \rightarrow \beta Wp)$, $(\forall p (\beta Wp \rightarrow p))$ and $\forall p (\beta Cp \rightarrow p)$). There is also a definition of a new

property related to the coherence of will (*coherent* (x,y)) which is satisfied by God (ibid., 203-205). Then Nieznański finishes the initial part of his article defining permission ($x Dp$) and opposition ($x Sp$) regarding to situations ($x Sp \leftrightarrow x C \sim p$ and $x Dp \leftrightarrow \sim x Sp$). Some important theorems are deduced and relations between God's will, knowledge, allowance and opposition are clarified. One statement is noteworthy: what he calls "axiom of justice" ($\forall p [\exists x \beta C(x Cp) \rightarrow \forall x \beta D(x Dp)]$) (ibid., 205-208).

Henceforward, the philosopher develops a complete "theistic axiology of values", wherein he defines good (d), bad (z) and neutral (n) situations, and then derives relations between them and God. From these definitions and the theory established an effective denial of religious fatalism is derived: it is not the case that, for all that is, God wants it to be ($\sim \forall p (p \rightarrow \beta Cp)$), and it is not true that, for all situations, the fact that God knows a situation implies that he wants it ($\sim \forall p (\beta Wp \rightarrow \beta Cp)$), among other theorems. To conclude, Nieznański defines the notions of cause (P) and responsibility (O) of beings regarding facts and the contingency (K) of situations. Then, derives some important results. God is not the cause of everything that happens ($\sim \forall p (p \rightarrow \beta Pp)$); although he is responsible for what is good ($(\forall p (\beta Op \rightarrow p \varepsilon d))$), for what is evil he is not responsible ($\forall p (p \varepsilon z \rightarrow \sim \beta Op)$), for these situations are contingent and thus these are not subject to God's will or opposition ($\forall p (p \varepsilon z \wedge \sim \beta Sp \rightarrow p \varepsilon K)$ and $(\exists p p \varepsilon K \leftrightarrow \sim \forall p (\beta Cp \vee \beta Sp))$) (ibid., 208-213).

Conclusions

Nieznański delivers a substantial contribution to the problem of Theodicy through the use of formal methods. His axiomatic approach is an example of how the use of Formal Logic is a great tool for dealing with important philosophical issues, as it clarifies the arguments and assures an effective procedure of deduction which preserves truth. In addition, it serves as a good introduction to the study of formal methods of Mathematical Logic and the use of Logic as a philosophical tool, both aims achieved by this study.

¹ Mortari, C. A. *Introdução à lógica*, 1st ed.; Editora da UNESP: São Paulo, 2001, pp. 2.

² Plantinga, A. *God, freedom and evil*. Eerdmans: Grand Rapids, 1977.

³ Nieznański, E. Aksjomatyczne ujęcie problemu teodicy. *Roczniki Filozoficzne* 2007, LV (1), pp. 201-217.

⁴ Margaris, A. *First order mathematical logic*. Dover: New York, 1990.