IS GOD PARACONSISTENT ?

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> Deus é a congruência dos opostos Dele se podendo afirmar e negar tudo Lars Eriksen



Abstract

In this paper we examine what is the relation between God and Paraconsistency. We first start by some general considerations about paraconsistent negations and paraconsistent things. We then examine in which sense the "thing" called "God" is paraconsistent or not. Finally, we look the other way round and discuss the divinity of paraconsistency.

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1. Paraconsistent Negations and Paraconsistent Things

How and in which sense *something* can be paraconsistent? *Paraconsistent* is first of all a quality that applies to negation. A negation is paraconsistent only if there is a formula *F* such that *F* and \neg *F* are true together. It is not an "iff", just a negative criterium, positive criteria are requested to ensure we are dealing with a *negation*, not with any kind of unary operator (see [JYB 2000]). And it is not enough to use the sign "¬" to guarantee we have a negation. The name, the symbol, is not at all a sufficient condition. Moreover, there is not only one paraconsistent negation but different ones.

Given a paraconsistent negation \neg (no quotation marks: the sign is not the thing), *P* is a *paraconsistent proposition* iff *P* and $\neg P$ can be true together. In the three-valued paraconsistent logic of Asenjo/Priest ([cf. ASE 1966], [PRI 1979]) all propositions are paraconsistent, quite strange! (see [JYB 2016b]). In the paraconsistent logic C1 [COS 1963], all atomic propositions are paraconsistent, but not all the molecular ones. In C1 a proposition typically not paraconsistent is $P\&\neg P$. In the paraconsistent logic Z [JYB 2016a] all propositions are paraconsistent excepted tautologies and antilogies. And there are some paraconsistent logics where only atomic propositions are paraconsistent, like Sette's logic P1 [SET 1971].



In all these cases therefore, an atomic proposition like "A triangle has three sides" is paraconsistent, because according to these logics "A triangle has three sides" and "A triangle has not three sides" can both be true. This may look strange and in fact it is strange. But classical logic also is odd: "A triangle has three sides" can be true and "A triangle has three sides" can be false. Anyway, a mistake cannot be corrected by another mistake. We will not correct this mistake here but the present discussion may shed some light on it and urge to develop better paraconsistent logics, or better logics *tout court*.

A thing t can be defined as paraconsistent if there is a property Π , such t has Π and does not have Π . In other words: the two propositions "t is Π " and "t is not Π " are true, for a given paraconsistent negation corresponding to the "not" of the second proposition. It can be objective or subjective in the sense that the property Π can be a way to conceive the thing or an intrinsic quality of the thing. Consider the following picture:



The cylinder appears as a square and as a circle. "It is a square" and "It is not square" are two propositions true about it considering that a circle is not a square. The cylinder is paraconsistent from this point of view, or better from these two points of view. This does not necessarily mean that the cylinder itself is intrinsically paraconsistent.

With the picture below we have a more ambiguous situation: an old woman intertwined with a young woman. But anyway, we don't have here a woman which is at the same time both young and old. At best, we have a "thing" that can be seen quasi-simultaneously as an old lady or as a young lady.



2. The Paraconsistency of God

God is first of all a *word*. Like many *things* ... Most of the time our mind is governed by words. Words can be useful tools but we have to be cautious not to just paddle into the linguist pond. Maybe we could spend a few hours, not to say a couple of academic years, discussing the question if "God" is a proper name (hence the capital letter) or just a common name (not so big).

Reality is also important. But how to reach or deal with reality beyond words? You may look at the sun, and this is the sun! For God that's not obvious, unless you identify God with the Sun.



God is not the only thing that cannot directly be perceived. What about Time? Not so easy, unless identifying your Rolex with Time. Time has indeed been deified: as Chronos, or as Money.



It is not because time cannot be directly perceived that there is nothing beyond the word, that time does not exist. On the other hand, the idea associated with the word "time" may be confused if not inconsistent, the same with the ideas associated with words like "life" or "existence".

Something may be real and difficult to conceive. It is true in fact of many things of the world we are merged in. But if the perception of a given object is rather clear and objective, we can associate a word to it without knowing exactly what it is, and that's the meaning of the word. That's the case of the sun. For most of the people the idea of the sun is nothing more than its appearance, despite the fact that there is a scientific theory explaining what it is in a more sophisticated way: a star among black holes in a mad universe.

In the case the thing does not explicitly show up the situation is not that simple, it is not necessarily easy to know what we are talking about. We have to be careful not to be only playing with words. Some words are really ambiguous in the sense that we may have the impression they have a meaning corresponding to a certain reality. At the end they are maybe just an illusion, a way of speaking, leading nowhere, or a highway to hell ...

Investigation of the meaning of a word may lead to the discovery that there is no real meaning. A problematic case is for example the one of "causality", related with God's case: God has been considered as the first cause or/and the cause of everything (see [JYB 2015])-



Many things are complex, they cannot be understood right away, we have to develop a sophisticated theory to catch them. This is typically the case of the intimate nature of physical reality or of lively beings. In modern physics there is the duality wave/particle. Roughly speaking microscopical reality can be viewed from two different opposite viewpoints.

One may argue that to save objective reality, we need to use a paraconsistent logic. Something can be considered as a wave and as a particle. It does not mean that it is a wave and a particle. It can be seen as a wave and it can be seen as a particle, not simultaneously, but from two different points of

views. Reality is not necessarily in itself paraconsistent. But paraconsistent logic may preserve the co-existence of two opposite theories to describe reality, without properly catching it.



Microscopical reality can be considered as a manifestation, no to say a product, of God. But let us turn to a more dramatical aspect of the divinity and check if it can be saved by paraconsistent logic and at what price, to speak the language of the cheap philosophy nowadays dominating the market.

On November 1st 1755 there was a terrible Earthquake in Lisbon destroying one of the most flamboyant cities of the time. How such a phenomenon is compatible with the goodness of God? This earthquake was used by the candid Voltaire to ridicule Leibniz's theory of the best of all possible worlds (originally due to Malebranche, and later on artificially revived by Kripke's possible worlds semantics - see [JYB 2010a]).



The contradiction is not straightforward. To consider we have a contradiction here, we must suppose that:

(1) God is good

(2) Lisbon's earthquake is bad (2a) and is the product of God (2b).

We will not discuss (2b) here, a question related to the omnipotence of God. Just let us point out that Lisbon's earthquake is completely different from global warming or the Shoah, two other hot phenomena. It would be difficult to argue that it has been produced by human beings. If (2b) is not assumed, then there is no explicit contradiction, but space for Hazard, not to say Devil.

"God is good" is a nice stipulation, but it has not necessarily the absolute obviousness of an axiom, like "the number one is the first" (also indeed not so obvious, see [JYB 2017]). "God is good" is not tautological like "If the sky is green then the sky is green". Is it analytical like "a bachelor is unmarried"? We quite understand the meaning of "unmarried", even without being a lawyer or a priest. But the meaning of "good" is not so clear, even being a lawyer and a priest. We can say that an apple, a book or a music is good. But it is not exactly the same meaning as when saying a woman is good. Goodness has many aspects. It is easier to argue an earthquake is not good than God is good.

If we don't specify too much what God is, it is difficult to find any contradiction. On the other hand, if we want to know all the details of its configuration, size, color, gender, etc., it is easy to find some contradictions. As it is known the devil wallows in details ... At this evil stage maybe we need paraconsistency, if we don't want to only have a ghostly or phantasmagoric conception/vision of god.

But It is not because something cannot be defined precisely that it does not exist. It makes sense to say that reality does not reduce to thought, even without assuming any noumenal dark side of reality. Many real things are difficult to define and reality itself is difficult to define, nevertheless we have a word for it. We can talk about it even if don't know what it is. To talk about God is thus not necessarily a problem. If we want to reason about it / with it, we have to see what kind of logic is the best. Gödel used quantified first-order modal logic to proof the existence of God. Is it sufficient or necessary?



3. The Divinity of Paraconsistency

Paraconsistent logic is a scientific theory, part of *mathematical logic*. Logic can be understood both as *reasoning* and as *theory of reasoning*. In [JYB 2010b] this distinction has been literally expressed respectively using *Logic* and *logic*. As pointed out, this is the same problem as with history. That's the reason why a Capital difference similar to *History* and *history* was made, There is an interaction between the two sides. History is based on history. The Historical action of the Emperor of France is based on the vision he had of the history of France. Similarly, our theory of reasoning may shape our way of reasoning.

Paraconsistent logic is first of all, like classical logic, relevant logic, modal logic, erotetic logic, polar logic, etc., a theory of reasoning. This theory develops through the construction and the study of a class of logical systems.

Someone may believe that classical logic is a description of the way we are reasoning, like Newton physics is a description of physical reality. But an important difference between logic and physics is that, since the beginning of the theory of reasoning with Aristotle, there is an important normative aspect. Classical logic can be considered as the way we should reason. This clearly shows the interaction between *Logic* and *logic*. There is a system, product of a theory and this system can direct reasoning, like a road traffic sign.



A logical system can be different from another one in different ways. Going on with traffic analogy: there is a difference like the one between the highway code in England and the highway code in France. Cars don't run in the same side of the road. It is impossible and dangerous to combine the two. The difference between the classical logical system and some paraconsistent logical systems, or other non-classical systems, may appear like that.

But the difference can also be different. In a traffic road system with only two lights red and green, red means stop, green go. It is a bit dangerous: if you arrive with your car at a high speed and the light turns from green to red, you may suddenly break and your car will skid and/or bump into the next Rolls Royce. In case of a traffic light with three lights, the most common one, the third orange light prevents this problem making the traffic smoother. The difference between two-valued logic and three-valued logic can be seen as similar. Many, but not all, paraconsistent logics are based on three-value semantics (see [ASE 1966], [DOC 1970], [ARA 2016], [PRI 1979], [BCG 2007] [BCD 2015] and [JYB 2016a]).



Another example is between traffic circle and traffic cross with light. This is compatible in two different ways. You can have a traffic system with both separately and also you can mix the two. In a paraconsistent system you may have side by side a paraconsistent negation and a classical negation and/or the classical negation can be defined from/with the paraconsistent negation.



With a good system of logic, we can better direct our mind and have a better understanding of reality. This can be related with the divine in two connected ways: the mind better works, is more intelligent, and consequently this permits a better understanding of reality.

In the Bible there is identification between God and the Logos:



We can consider that logic, as reasoning and as the theory of reasoning, which itself is also reasoning, is the manifestation of the divinity. But there is no reason to reduce logic or metalogic to classical logic, even if we believe in only one logic. On the other hand, even if we don't believe that *True Logic* is described by a paraconsistent system, in many ways paraconsistent logic is richer and more subtle than classical logic and that's a good point. However, we have to be careful to develop beautiful and meaningful systems, not just fashionable nonsense.



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