

logical¹ errors in kurt gödel's work

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motto: actually gödel's theorem is more pessimistic than it actually is.

to a mathematician objecting on bertrand russel's concepts and especially disputing kurt gödel's theorem is equivalent to suicide! and still I have doubts not only about the value of gödel's theorem, but also about the logical structure of its demonstration.

in my opinion mathematics is a tautology (i.e. the exact equivalent of what was supposed in the hypothesis is allowed to be obtained as result). if when concluding we obtain more than it was supposed in the hypotheses, then there is a fault in the demonstration, and if the conclusion is less than what the suppositions allow, then the reasoning is weak. it is not desired to super calculate and mini-deduct, to transform weak hypotheses to scientific documents, even if the same statement is expressed in a different way. if in an Euclidean plane a triangle has two equal angles, the supposed fact is equivalent(!) to stating that this is an isosceles triangle. thus, the first question comes to mind: so what's the big deal with mathematics then? well, it is!, because you get confirmation! with the help of math. It is good to be certain that a mushroom is poisonous, if it has a certain amount of substance in a given volume; it can even be shown how poisonous it is (to a mouse or an elephant). another example would be: for rocket moon landing a prediction is required that the ship is as heavy as it is heavy and according to the acceleration and the law of gravity, the data of the hypothesis lead, along with the demonstration, to the conclusion that the rocket must land where the conclusion of the demonstration says it will.

if math is a tautology and if in the conclusion of gödel's theorem there is at least a statement on which absolutely nothing can be said, then the equivalent of that statement

¹ sometimes ago I was asked by a math professor, father to 3 daughters, what would his fourth born be? I replied that according to the statistics it will be a girl but probability says it will be a boy.

should be found also in the hypothesis. however, where is such a statement hidden, at least one, in the hypothesis of the theorem supposed by gödel (which he ignores)? here is where: a definition is always incomplete. it is practically impossible to define. to define means actually to list all(!) the properties of the object that will be defined. and this is impossible. the statement that is thought by gödel not to exist in the hypothesis and the one which he thinks he finds out of the blue in the conclusion is hidden in the incompleteness of the definition used implicitly in the hypothesis. Thus, practically (and theoretical) gödel doesn't demonstrate anything else but a tautology that states that a (incomplete!) system is an incomplete system.

another major question: is such a statement (one on which nothing can be said) equivalent with the other ones used in the hypothesis and the demonstration?, as, if the answer is positive, then there should be nothing to be said on *all* the equivalent statements!

I re-iterate: if such a statement is equivalent (for example) to the ones used in the hypothesis, then all the supposed statements from the hypothesis have the property that they offer no information and hence gödel would have started from nothing! absolutely nothing!! and still he found an entire incomplete system!? and to talk about a qualitative leap, is a philosophical speculation.

another doubt on the value of gödel's theorem (on the issue proposed by david hilbert²) would be that the statements from the axiomatic system themselves do not have the same strength. for example, the following statement "two

² why wouldn't there be another law for logic that will not allow drawing conclusion in the logical plane about the logic plane?! as, the one who is capable of thinking – the chimp, for example-, is not supposed to be capable of thinking about thinking. I see logic not in the same plane with the statements which they evaluate. the statements are arguments (are reasoning), and logic works with them from another plane, the one of reasoning about reasoning. we need to consider that between the usage of the about-logic statement in order to evaluate them time passes (hence the simultaneity is lost). Moreover, gödel draws conclusions from the about-logic plane and the other way round

points define a straight line” can’t have the same value as the one that states that “through an exterior point of a straight line a straight line and only one can be drawn, that is parallel to the given straight line”. These two statements have different strengths and still they are part of the same system: in the second phrase(!) (not sentence) we have more sentences and both basic and non-basic concepts (that are already defined). the point, as well as the straight line, are basic concepts, when the parallelism can be defined with the help of two straight lines that have no common point. from the point of view of fuzzy logic the axioms should be 100% true statements³. but not all the statements from the axiomatic system are equivalent in their content. consequently, gödel starts his demonstration on wrong premises.

according to the objections presented above, if someone states that they have mathematically(!) proved God’s existence, then they really have demonstrated the following: if we suppose that God exists, then God exists. this represents the simplest sentence of mathematical logic wrapped in religious language. if in physics the creation of matter, and even of the universe, from nothing, i.e. the quantum void (still *something* that is considered to be nothing) is permitted, in mathematics this phenomenon is not allowed.

however, the reasoning of generalisation as the following would be more practical: I consider that the un-decidable statements as well as the paradoxical ones can be thought of as axioms to (re)complete the axiomatic system, which was the starting point to developing new theories in a chain

³by the way, in fuzzy logic karl poppers’ ability to be falsified should also be possible partially! Hence, what decimal percentage mista’ popper? unberechenbarkeit ist das wichtigste in dieser welt (meaning: the incalculability is the most important in this world). fuzzy logic represents the practice; it is reasoning by comparison, and the Aristotelian one is pure thinking, sorry, just thinking.

⁴this name is strange: if you remove a single axiom from Euclid’s system, the system is called non-Euclidean, although the remaining axioms are still the ones that Euclid presented (the system being a little less Euclidean)

⁵it can be the otherway round: a theory is presented - which we have done here-; to find out its axioms.

to approximate much better the ever changing reality. (a similar process has already been used; by ignoring an axiom supposed by Euclid the non-Euclidean⁴ geometry was created).

let's take in consideration the following method: if we take the newtonian axiomatic system, or the one that is at the origin of the relativity theory, and we change, replace or add, one by one, one, two or more axioms another theory is obtained that is more or less relative. It would be more simple that, with the help of a computer, to research all the possible combinations of axioms and to obtain (almost!) all the possible theories⁵. we stated that it *would be* simple, in the case that the number of axioms wouldn't be too big. however, according to gödel's theorem the method is not applicable because: that sentence from gödel's theorem (at least one) on which nothing can be said, can't be used even as a new axiom with the help of which a new theory to be developed, just because it would be a sentence on which nothing can be said. It will remain only as a clue for the incompleteness of any theory. But I state that this is happening because to define (completely!) is not possible.

According to the current observations, I think that if gödel's theorem has no value, then the mathematical reality is more somber than if we would accept his theorem as being correct.

This means that, he, god-el (which translated would mean little god) states that it can't be known. but if his theorem is false, then we wouldn't know even that we couldn't know!!

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