Gödel's Symbolic Philosophy: A Sketch of the System

There exists a sphere in which every proof is a circle—or an error—where nothing may be demonstrated—that is the sphere of the developed Golden Age.

Novalis, 'Notes for a Romantic Encyclopedia'

As Gabriella Crocco and Eva-Maria Engelen state in their overview of Kurt Gödel's philosophical notebooks, the latter «is famous for being a genius but rather in logic, mathematics and maybe also in physics, not in philosophy» (Crocco, Engelen 2016, 34). In fact, Gödel only scarcely published his philosophical work, which can be explained by his exceptional perfectionism and by his view that it would face strict scrutiny because of its disaccord with some of the widespread convictions of the time¹. This view is perhaps proven correct by the still observable tendency to separate his mathematical and logical results from the more philosophically inclined work². However, Gödel himself noted that his «work is the application of a philosophy suggested outside of science» (Wang 1996, 297). Correspondingly, the following essay attempts to explore some of his well-known intellectual achievements with the aim to uncover the underlying philosophical worldview that motivates and informs them.

Being and Time

Philosopher and cultural theorist Byung-Chul Han observes that we face a «temporal crisis», a «dyschronicity»: «due to the temporal dispersal, no experience of duration is possible... Even things with which we identify are fleeting and ephemeral. Thus, we become radically transient ourselves» (Han 2017, 6). Han lists Nietzsche and Heidegger as the major thinkers who foresaw and confronted the temporal crisis (Han 2017, 10). It is in this line that we suggest to consider Gödel's philosophy of time.

Gödel's famous related results are his cosmological model which contains so-called «closed time-like curves» (Gödel 1949a) and its philosophical interpretation (Gödel 1949b) (the more popular exposition of Gödel's argument can be found in (Yourgrau 2005, 119-134)). It is typically assumed that in these publications Gödel «questions the existence of time» (Passon et al. 2023, V), though examination of his statements found elsewhere complicates the picture. On one hand, there are indeed instances of Gödel making claims such as «time is no specific character of being... I do not believe in the objectivity of time» and speaking against «taking time too seriously and taking it as objective» (Wang 1996, 313, 320). On the other, he remarked that «time is the only natural frame of reference... for the mind» and included time in his list of the «primitive concepts of metaphysics» (Wang 1996, 294, 319).

Kovač, following Yourgrau's observation that Gödel's analyses «distinguish the intuitive from the formal concept», or otherwise put, «the standard interpretation of time in the intuitive sense» from «the variable that represents the temporal component of four-dimensional space-time» (Yourgrau 2005, 135), offers the way to reconcile these two seemingly contradictory attitudes, suggesting that Gödel's philosophy of time affirms the «dual perspective of the world: "from within and also *sub specie aeternitatis*"» (Kovač 2012, 331). Kovač emphasizes that «somehow,

¹ Both tendencies are brightly exemplified by Gödel's letter to Paul Cohen of April 27, 1967 (quoted in (van Atten, Kennedy 2015, 139)), which van Atten and Kennedy call «typical of Gödel's view of his philosophical project». In the letter, Gödel claims that his «thinking has moved along lines entirely different from those of the conference» (to which he was invited but declined) and that he has «not yet advanced far enough» in «the most general philosophical and epistemological questions» he pondered (van Atten, Kennedy 2015, 139).

² This tendency is discussed, f.i., in (Yourgrau 2023, 215-218).

we, the individual selves, must be able to support *both* perspectives» (Kovač 2012, 331). Such dual perspective can also be found in Gödel's statement quoted by Rucker: «The illusion of the passage of time arises from the confusing of the given with the real. Passage of time arises because we think of occupying different realities. In fact, we occupy only different givens. There is only one reality» (Rucker 2005, 171).

The way Gödel distinguishes between «the real» and «the given» appears to be connected to his ideas on the necessary and the possible existence, which are expressed, particularly, in his ontological proof³. As Gödel noted, «the world must have a cause. This must be necessary in itself (otherwise it would require a further cause)» (Gödel 1995, 431). From the premises of the ontological proof it follows that the necessary existent being «is involved in all causation» and «thus sustains... each causal event» (Kovač 2015, 185). A significant feature of the ontological proof is that its axioms imply «modal collapse»: «whatever is true is necessarily true», «there is objectively no future realization of presently non realized possibilities, but each possibility is "already" realized in cosmological spacetime» (Kovač 2012, 329, 331).

Does the «collapse» of time (and modalities) in this picture imply the lack of individual agency and free will? Such is the argument made in (Pawlowski 2023, 51-58), where it is suggested that «the timeless Gödelian universe» is incompatible with an «individual perspective» or «a conscious empirical subject» (Pawlowski 2023, 57). Pawlowski's argument proceeds from the idea of agency according to which a subject is supposed to act on an object separate from itself⁴ (in Pawlowski's words, agency demands «relativity or individual perspective», and he specifically posits that «the self» must be something separate or distinct from «the world» or «its structure») (Pawlowski 2023, 57). Gödel's own view, however, appears to be that his philosophy of time allows for agency and individuality, as these are not fundamentally dependent on (the everyday notion of) time. According to Gödel, «monads [individual substances] only act into space; they are not in space⁵. They have an inner life or consciousness»; «they... have something inside» (Wang 1996, 292). The individual selves are distinguished by their «inner life of consciousness» – a feat omitted in Pawlowski's analysis.

When we speak of «inner life», we are still using spatially inspired language – «inner» means located or found inside of something else. Yet Gödel explicitly claims that this «inner life» of a monad is not happening in space⁶. How can something exist at all, if not in some space?

It can be argued that such mode of existence is closely related to the necessary existent which engenders all causation, as implied by Gödel's ontological proof. It had been suggested that such picture of the world «leave[s] no room for free agents» (Sobel 1987, 251)⁷. Yet there are different

⁴ Though in our experience we can encounter subtler instances of agency, e.g., the kind of agency an artist exercises in her art. The artist is both present in her art and remains outside of it; the artist causes the art to be, and at the same time it is often said that true art «has a life of its own», as the new audiences and the new contexts reveal in it new meanings, perhaps not even intended or expected by the author.

⁵ Note that for Gödel, time in this regard must be analogous to space («In relativity theory the temporal relation is like far and near in space») (Wang 1996, 320). Monads or individual substances then must exist outside of the spacetime, or, otherwise put, their existence is ontologically prior to the flow of time.

⁶ Compare to how it is sometimes said that ideas or mathematical objects are «located» in a «Platonic world» – which exactly means that these are not entities which can be located in a physical space, at least not in the sense most objects of our everyday experience can be located.

³ Substantial connections between Gödel's philosophy of time and the ontological proof have been noted in literature (see, f.i., (Yourgrau 2005, 130)). Our discussion of the premises and implications of the ontological proof proceeds from the version of the proof transcribed by Dana Scott and presented in (Sobel 1987, 257-258).

⁷ Notably, this argument by Sobel, according to which a necessary being cannot have a personality or consciousness, significantly overlaps with the above-discussed argument by Pawlowski, providing us with another indication of structural similarity between Gödel's philosophy of time and his ontological proof.

ways to understand causation. E.g., D. C. Schindler suggests that in Plato (Gödel's affinity to whom is widely recognized), «the good causes in the mode, not of power... but of generosity. It causes by giving agency» (Schindler 2017, 308). This mode of causality closely corresponds to what Gödel himself envisioned, as indicated by his remarks: «God created things in such a way that they can in turn "create" something» (Crocco et al. 2017, 12) and «we participate through our freedom of the will in God's creation» (Crocco et al. 2024, 77). The necessary existent being causes not by forcing a set of affairs on an object, but by giving freedom and agency akin to its own.

Another important insight into Gödel's philosophical vision is provided by the following note:

At first, a structure of the eras is given a priori, and the point is to determine one's own position in it... Through more and more experiences and "decisions" (in the sense of actions taken in life), the identifications become more and more precise (more and more unambiguous), until they are eventually completely unambiguous. In this sense, everyone "builds" his fate and even determines the era in which he lives... "I do not know who I am" means: I have not identified myself correctly (Gödel 2021, 246).

In this quote a distinction (and interplay) between the two perspectives of the world, «from within» and «sub specie aeternitatis», is again evident. There is the historical «structure», that is «given a priori», and its actualization by each individual who «builds his fate» but can possibly deviate from the correct path of self-realization (failing to «identify himself correctly»). To every individual in this schema thus corresponds the plan for own self-realization, which has a timeless origin but is actualized through active participation in the common history («actions taken in life»)⁸.

It is important to note that the «dual perspective» which distinguishes the ideal plan for the thing from its actualization within history does not induce detachment from the historical process, some sort of static, ahistorical vision of reality. On the contrary, by providing the source of durable identity, it enables truly decisive action and historical progress. This brings us back to the problem of «dischronicity» identified by Han – Gödel's philosophy provides us with what Han calls a missing «stabilizer of time» (Han 2017, 10), with lasting orientation. To gain such insight into what is durable means not to imagine things as static or meaninglessly repeating similar actions, but to contemplate their relationship to «the real», their common causal ground.

The Openness of Truth

In his essay on the philosophical implications of Gödel's seminal incompleteness theorems, Russian mathematician and thinker Aleksei Parshin suggests that «we can never formally represent the truth»: «we can only follow it, always capturing just a part of it... There occurs

⁸ This schema is comparable to the following assertion by Husserl: «[Man's] true being is not something he always already has, with the self-evidence of the "I am," but something he only has and can have in the form of the struggle for his truth, the struggle to make himself true. True being is everywhere an ideal goal, a task of *episteme* or "reason"» (Husserl 1970, 13). An even closer analogy (as Gödel identifies the ultimate cause with God) can be made to Edith Stein's *Finite and Eternal Being*: «all existents have their archetypal-causal ground in the divine nature... The closer a created being is to the divine *Urbild* [archetype], the more perfect it is» (Stein 2002, 116, 323). For Stein, each existing thing is an actualization of the primordial «ideal» plan or task (which is specifically emphasized to exist «from eternity»), though there is a possibility that «in time» a thing will deviate from this plan (Stein 2002, 114).

⁹ Cf. Catherine Pickstock observing that «for Plato the eternal was not thematised as static... the recollection of Forms is not a nostalgic retreat into a remembered past, but an invocation of an eternal past that is an eternal present and an eternal future» (Pickstock 2013, 27, 66).

some act, through which the formal system can be expanded» (Parshin 2000, 33). Parshin calls this «act» a «sudden illumination» or «intuitive insight», emphasizing his view that such unformalizable creative acts occur not only in mathematics but across variety of disciplines and in life itself: «there must exist a Gödel theorem in biology», as he puts it (Parshin 2000, 35, 47, 55)¹⁰. Importantly, Parshin argues that «each proposition of language, which can be represented as a formula consisting of a countable number of digits, is in fact an instantiation of a certain infinite structure, which reveals only its finite part in a given speech act» (Parshin 2000, 37). In other words, according to Parshin, it follows from the incompleteness theorems that the true propositions of a consistent language refer to the single object, the totality of truth.

As Gödel himself noted in the original publication of the incompleteness theorems, «the true reason for the incompleteness inherent in all formal systems of mathematics is that the formation of ever higher types can be continued into the transfinite... while in any formal system at most denumerably many of them are available» (Gödel 1931, 181). Elsewhere he made statements which shade more light on this point, linking «the inexhaustibility of mathematics» to the fact that «the very formulation of axioms... gives rise to the next axiom» because of the nature of the «operation "set of"» (Gödel 1951, 305-307). This insight is also touched upon in the article 'What is Cantor's Continuum Problem?', where Gödel writes: «the axioms of set theory by no means form a system closed on itself, but, quite on the contrary, the very concept of set... suggests their extension by new axioms which assert the existence of still further iterations of the operation "set of"» (Gödel 1964, 260). We can assume that Gödel saw such «inexhaustibility» of the truth as characteristic not only of «formal languages» narrowly understood, but of reality itself, as indicated, f.i., by his claim «the mathematical and the empirical parts» of reality are «in harmony» (Wang 1996, 151).

Further insight into the inexhaustibility of truth can be gained through reflecting on the connection between the incompleteness theorems and the Liar paradox, which Gödel himself acknowledged¹² (Gödel 1934, 362). In a classical version of the paradox, a Cretan says: «All Cretans are liars». As György Serény notes, this statement itself is not necessarily «a logical paradox since it must simply be false. On the other hand, it indeed exhibits remarkable paradoxical features since the apparently contingent fact that some Cretans existed who sometime told the truth turns out to be a logical necessity» (Serény 1999, 2). Admitting the necessity of the forementioned contingent fact is essentially the same as admitting that the statement «I always lie» cannot be true¹³, in contrast to «I sometimes lie» or «I always tell truth».

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¹⁰ Curiously, as (Roli et al. 2024, 11) argue, «there will always be some organismic behaviors that cannot be captured by a preexisting formal model» – an assertion they call an «incompleteness argument of the kind Gödel made in mathematics».

¹¹ In fact, Gödel suggests that it is precisely «the "inexhaustibility" of mathematics» which «makes the similarity between reason and the senses... still closer» (Gödel 1953, 353). In the context of the cited work, mathematics is understood as the study of «relations between concepts or other abstract objects which subsist independently of our sensations, although they... have consequences verifiable by sense perception» (Gödel 1953, 351). Elsewhere, Gödel also notes that «the "given" underlying mathematics is closely related to the abstract elements contained in our empirical ideas», further indicating that mathematical objects comprise a distinct but not isolated «aspect of objective reality» (Gödel 1964, 264).

¹² In this connection Gödel also noted that «we can construct propositions which make statements about themselves... which... are undoubtedly meaningful statements» (Gödel 1934, 362).

¹³ The Liar paradox is often presented in the form «This statement is false». For the present discussion, we suggest the form «I always lie», because it escapes contradiction by necessitating that «I sometimes say the truth» – to use Serény's words, «the apparently contingent fact turns out to be a logical necessity». This point provides the link to the ontological proof we discuss below.

In his paper 'Road to Gödel', Saul Kripke suggests that it is more fruitful to approach Gödel's incompleteness proof through linking it to the «heterological» paradox ¹⁴, rather than the Liar paradox (Kripke 2014, 239). As Kripke argues, the crux of the proof is the construction of the statement which «precisely» means «'Unprovable of itself' is unprovable of itself» – the statement that he calls «clear and well motivated» (Kripke 2014, 239). Kripke also emphasizes that this statement can be demonstrated to be neither provable nor disprovable «without noticing explicitly» that it «says something about itself»: «what is really used is that... it is a universal statement each instance of which can be checked within the system» (Kripke 2014, 239). Indeed, if the statement that asserts its own improvability is provable, then it is a provable false statement – an unacceptable consequence for the consistent logic.

The statement that asserts its own improvability notably «says something about itself» while also telling us something about all the other statements in the system, namely, that they cannot be used to prove the existing true statement¹⁵. Otherwise put, this self-referential statement, precisely through informing us about itself, simultaneously informs us about the logical system as a whole. In case with the paradox of the Cretan, we gain knowledge (that there are Cretans who sometimes tell the truth) from the fact that the statement «I always lie» cannot be true. Likewise, we gain certain knowledge about all the statements in a logical system from the fact that the false statement cannot be provable: in both cases, acknowledging the restriction on the variety of meaningful statements leads to positive results, to the discovery of new truths.

In this regard, the incompleteness theorems can be related to the ontological proof¹⁶. The proof itself can be understood as a meditation on the nature of truth, being and identity and their interrelations¹⁷. Identity and being are linked together through the concept of «properties» (in Gödel's words, property is «cause of the difference of things» (Gödel 1995, 433, 435), while the «positive» properties «affirm being» (Kovač 2012, 333)), and in the necessary being, the truth and being coincide¹⁸.

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¹⁴ The «heterological» paradox can be presented in the following form: «'heterological' [an adjective denoting a property that does not hold for the adjective itself] is heterological» (Serény 1999, 3).

¹⁵ Perhaps this is the related to why Kripke suggested the «heterological» paradox as the key to the incompleteness

¹⁵ Perhaps this is the related to why Kripke suggested the «heterological» paradox as the key to the incompleteness proof, as the very meaning of the world «heterological» immediately suggests that the object described by this word is placed in relationship with objects beside it.

Sobel had noted the close connection between the argument presented in Gödel's paper 'Russell's Mathematical Logic' (the «slingshot argument») and the ontological proof: both lead to the conclusion that 'there is just one Truth' (Sobel 2008, 147). That the incompleteness proof can be also linked to this underlying conception of truth contributes to the understanding of Gödel's various intellectual achievements as constituting the coherent system.

¹⁷ It seems to us that to consider Gödel's ontological proof as a piece of formal reasoning, which is supposed to «force» someone to accept God's existence (as some «indisputable» mathematical truth), would be something of a misunderstanding. If it was the case, it would mean that the deepest questions of human existence (or even, simply put, the totality of existence) can be exhausted by formal methods. But life is richer than just formal reasoning, and the incompleteness theorems show that in mathematics itself there are proof-transcending truths (note also Gödel's remark «The purpose of philosophy is not to prove everything from nothing, but to assume as given all... that we see» (Wang 1996, 173)). However, showing that there are truths that transcend proof also implies that these truths indeed *are*, that they exist, and Gödel labored to explain how can we come in contact with such truths and reasonably include them in the system of our thinking: e.g., he suggested that certain axioms can be held as true on the basis of their fruitful applications (Gödel 1964, 261, 269). The ontological proof can be interpreted as generalization of such approach, in the sense that it offers a comprehensive vision of reality and truth which is acceptable on the ground of implying optimal personal and social outcomes.

¹⁸ «The positive and the true sentences are the same» (Gödel 1995, 433), while the being that has the sum of all positives is the reason for the existence of itself and everything else. Cf. also the following passage: «every mathematical proposition could perhaps be reduced to a special case of a = a, namely if the reduction is effected not in virtue of the definitions of the terms occurring, but in virtue of their meaning, which can never be completely expressed in a set of formal rules» (Gödel 1944, 139). Strikingly, the ontological proof is precisely the reduction of

If we return to the above-outlined schema of the interplay between two perspectives (sub specie aeternitatis, to which corresponds the ideal «plan» for a being, and its unfolding within time), the positive «properties» a being has can be related to the eternal plan, and the individual agency is expressed through making the choices that actualize them. In this schema, it is pointless to make any choices aside from those that lead to acquisition or actualization of positive properties, as these properties are exactly the ones that allow any being to achieve its maximal self-realization ¹⁹.

The key idea behind Gödel's ontological proof is demonstration that «any non-empty set of positive properties is possibly instantiated» (Oppy 2017, 2). As the being that has the sum of positive properties is also the sum of all truth, if it was not possibly instantiated, we would have a situation structurally similar to the one describable by the statement «I always lie»: to describe such situation is to claim that truth is never instantiated²⁰. In a manner comparable to the move used in the incompleteness proof, the ontological proof makes positive use of the impossibility to make certain statements meaningfully. Both the unprovable sentence in the incompleteness proof and the sum of all truths in the ontological proof deliver meaningful truths about other objects in a manner that requires being different from them²¹. The truth is characterized by its ability to embrace plurality, by its openness.

Gödel's Symbolic Ontology

As we attempted to demonstrate, there is a recurring pattern in Gödel's thought: the relationship between the totality of being or truth and its instantiations which are, nevertheless, truly, distinctively individual. To grasp such pattern conceptually and to place it into the broader intellectual landscape, Schelling's distinction between schema, allegory and symbol may prove useful²². In schema, «the universal... merely means or signifies the particular» (Schelling 1989,

any truthful proposition to a «case of a = a» (as its premises imply that any truthful proposition is true by virtue of being sustained by the totality of truth).

¹⁹ To choose positive over negative is literally to choose being over non-being. Cf. Yourgrau's comment on the letter by Gödel: «His [Gödel's] point is... that we shouldn't complain that God could have created a better, indeed, a best possible world, since if God had done so, we – being the kind of beings we are – wouldn't have existed» (Yourgrau 2023, 225). Similar conclusions are derivable from the ontological proof, as well.

With respect to this sort of optimism Gödel is often compared to Leibniz. It is worth noting that interesting parallels can be observed between Gödel's argument and the argument found in the treatise *Hayakal al-Nur* ('Shapes of Light') by the 12th century Islamic philosopher Suhrawardi. Suhrawardi argues that any «possible» being must have a cause, and the ultimate cause of reality must be a necessary being (Suhrawardi 1998, 65). Such necessary being must be unique, for if two (or more) such beings exist, then their existence presupposes some sort of difference between them (otherwise they would be identical and thus really the same being: «it is not possible to conceive two things which do not have a difference between them»), making their existence dependent on the existence of said difference and thus contingent rather than necessary (Suhrawardi 1998, 65). In a manner similar to «modal collapse» in Gödel's proof, it follows in Suhrawardi's argument that «one cannot conceive this universe of existences to be more perfect than it is» (Suhrawardi 1998, 83). Suhrawardi emphasizes that «if this universe of existences were other than it is, it is then that badness and harm would be made necessary» (Suhrawardi 1998, 83): if the world was to be made different from what it is because there is evil in it, then evil would enjoy the same ontological status as the good, it would be a constitutive causal force on par with the good.

²⁰ The same idea is captured by Gödel's remark: «If there were nothing actual, then precisely this would in fact be something actual» (Gödel 1995, 431).

²¹ In the incompleteness proof, the improvable statement, by virtue of being improvable, tells us that there is truth which cannot be captured by the proof constituted by the other statements (and thus expands our understanding of what it means for these very statements to be true). In the ontological proof, the maximal being affirms actuality of all the other beings in a manner that requires them to be different from it, so they do not become, in effect, one and the same being. But being different from the maximal being (and thus not having the totality of properties) is also exactly the reason why a being does not affirm its own actuality itself.

²² Schelling is not discussed in connection to Gödel's philosophy as often as Leibniz, Plato, or Husserl, yet it is known that Gödel studied his works and mentioned him (in favorable comparison with Hegel) as adhering to the «ideal of seeing the primitive concepts» (Wang 1996, 98, 168).

47). In allegory, the opposite is true: «the particular here means or signifies the universal» (Schelling 1989, 47). «The synthesis... where neither the universal means the particular nor the particular the universal, but rather where both are absolutely one» is symbol (Schelling 1989, 46). Gödelian conception of being and truth can be called «symbolic», in the sense that the particular beings are not mere projections or extensions of the universal truth but rather agents with distinct identity; they instantiate the truth in the manner that makes them distinct. Making such connection between the two thinkers offers us rich conceptual resources, f.i., to clarify the implications of Gödel's ontological proof and to defend it from the accusation that it implies a freedom-denving determinism²³.

Gödel's realist stance in respect to mathematics and science is well known and thoroughly discussed in literature²⁴. This is, however, a distinct kind of realism: one that attributes reality to freedom and personhood as well as to mathematical or scientific data²⁵. And in fact, these two aspects of realism facilitate and complement each other²⁶.

References

Crocco, G., Engelen, E.-M. (2016). Kurt Gödel's Philosophical Remarks (Max Phil). Kurt Gödel Philosopher-Scientist. Crocco, G., Engelen, E.-M. (eds.). Aix-en-Provence, Presses Universitaires de Provence. 33-79.

Crocco, G., et al. (2017). Kurt Gödel Maxims and Philosophical Remarks Volume X. HAL, available at: https://hal.science/hal-01459188v1 (accessed 27.02.2025).

Crocco, G., et al (2024). Kurt Gödel Maxims and Philosophical Remarks Vol XIV. HAL, available at: https://shs.hal.science/halshs-04533954/document (accessed 27.02.2025).

Gödel, K. (1931). On Formally Undecidable Propositions of Principia Mathematica and Related Systems I. Collected Works. Vol. I. (1986). Feferman, S. et al. (eds.). New York and Oxford, Oxford University Press. 145-195.

Gödel, K. (1934). On Undecidable Propositions of Formal Mathematical Systems. Collected Works. Vol. I. 346-372.

Gödel, K. (1944). Russell's Mathematical Logic. Gödel, K. Collected Works. Vol. II. (1990). Feferman, S. (editor-in-chief). New York and Oxford, Oxford University Press. 119-143.

forced on some material as «something external to it» (Schelling 1989, 167). Causation in the ontological proof, as we interpreted it above, corresponds to the first mode of organization outlined by Schelling, while mechanistic determinism would correspond to the second.

ontological proof comes from his search for the arguments to defend the realist attitude to mathematical truth (Park 2018, 152). But a more general observation can be made, as the ontological proof grounds all truths in the common being. The proof, as we discussed above, also attaches incredible importance to the consequences of our actions: in

Gödelian ontology, to use the words of the movie character, «what we do in life, echoes in eternity».

²³ E.g., note how Schelling distinguishes between the manner of organization, which is characterized by an «internal identity coming apparently from within the object itself», and the situation when the principle of organization is

²⁴ See, f.i., (Parsons 2010), (Martin 2005). Gödel's own affirmation of robust realism goes as far as to challenge what he calls the «Kantian» idea of «the unknowability... of the things in themselves» and to posit that it is possible for «scientific knowledge... to go beyond the appearances and approach the world of things» (Gödel 1947, 244). Woosuk Park makes important point when he suggests that some part of Gödel's motivation behind the

²⁶ In Gödelian ontology, the truthfulness of our statements about the external world is ultimately dependent on the necessary existent being which at the same time is the ultimate cause of our own agency and identity. Such inner kinship between the conscious actants and the external world is, of course, an idea extremely relevant for the times of ecological crisis.

Gödel, K. (1947). Some Observations on the Relationship Between Theory of Relativity and Kantian Philosophy. *Collected Works. Vol. III.* (1995). Feferman, S. (editor-in-chief). New York and Oxford, Oxford University Press. 230-246.

Gödel, K. (1949a). An Example of a New Type of Cosmological Solutions of Einstein's Field Equations of Gravitation. *Reviews of Modern Physics*, 21(3), 447-450.

Gödel, K. (1949b). A Remark About the Relationship Between Relativity Theory and Idealistic Philosophy. *Albert Einstein: Philosopher-Scientist*. Schilpp, A. (ed.). New York, Open Court. 557-562.

Gödel, K. (1951). Some Basic Theorems on the Foundations of Mathematics and Their Implications. *Collected Works. Vol. III.* 304-323.

Gödel, K. (1953). Is Mathematics Syntax of Language? Version III. Collected Works. Vol. III. 334-355.

Gödel, K. (1964). What is Cantor's Continuum Problem? Collected Works. Vol. II. 254-270.

Gödel, K. (1995). Texts relating to the ontological proof. Collected Works. Vol. III. 429-438.

Gödel, K. (2021). Maxims III: Philosophical Notebooks. Tr. by Carl, M. Berlin, De Gruyter.

Han, B.-C. (2017). *The Scent of Time: A Philosophical Essay on the Art of Lingering*. Tr. by Steuer, D. Cambridge and Medford, Polity Press.

Husserl, E. (1970). *The Crisis of European Sciences and Transcendental Phenomenology*. Tr. by Carr, D. Evanston, Northwestern University Press.

Kovač, S. (2012). Modal Collapse in Gödel's Ontological Proof. *Ontological Proofs Today*. Szatkowski, M. (ed.). Heusenstamm, Ontos Verlag. 323-344.

Kovač, S. (2015). Causal Interpretation of Gödel's Ontological Proof. *Gödel's Ontological Argument: History, Modifications, and Controversies*. Świętorzecka, K. (ed.). Warszawa, Semper. 163-201.

Kripke, S. (2014). Road to Gödel. *Naming, Necessity and More: Explorations in the Philosophical Work of Saul Kripke*. Berg, J. (ed.). London, Palgrave Macmillan. 223-242.

Martin, D. A. (2005). Gödel's Conceptual Realism. Bulletin of Symbolic Logic, 11(2), 207-224.

Oppy, G. (2017). Gödel: The Third Degree. *Inference: International Review of Science*, 3(1), 1-8.

Park, W. (2018). On the Motivations of Gödel's Ontological Proof. *Philosophy's Loss of Logic to Mathematics: An Inadequately Understood Take-Over*. Cham, Springer. 145-156.

Parshin, A. N. (2000). Razmyshleniya nad teoremoi Gedelya [Meditations on Gödel's Theorem]. *Istoriko-matematicheskie issledovaniya* [Historical-Mathematical Studies]. Second series. Vol. 5(40). Demidov, S.S. (editor-in-chief). Moscow, Janus-K. (In Russian).

Parsons, C. (2010). Platonism and Mathematical Intuition in Kurt Gödel's Thought. *Kurt Gödel: Essays for His Centennial*. Feferman, S. et al. (eds.). Cambridge, Cambridge University Press. 326-55.

Passon, O. et al. (2023). Preface. On Gödel and the Nonexistence of Time – Gödel und die Nichtexistenz der Zeit. Passon, O. et al. (eds.). Springer (e-book). V-VI.

Pawłowski, M. (2023). Self or the World. On Gödel and the Nonexistence of Time – Gödel und die Nichtexistenz der Zeit. 51-58.

Pickstock, C. (2013). Repetition and Identity: The Literary Agenda. Oxford, Oxford University Press.

Roli, A. et al. (2022). How Organisms Come to Know the World: Fundamental Limits on Artificial General Intelligence. *Frontiers in Ecology and Evolution*, 9, 1-14.

Rucker, R. (2005). *Infinity and the Mind: The Philosophy and Science of the Infinite*. Princeton, Princeton University Press.

Schindler, D. C. (2017). Freedom from Reality: The Diabolical Character of Modern Liberty. Notre Dame, University of Notre Dame Press.

Schelling, F. W. J. (1989). *The Philosophy of Art*. Tr. by Scott, D. W. Minneapolis, University of Minnesota Press.

Serény, G. (1999). *Gödel, Tarski, Church, and the Liar*. arXiv, available at: https://arxiv.org/pdf/math.LO/9903005 (accessed 27.02.2025).

Sobel, J. H. (1987). Gödel's Ontological Proof. *On Being and Saying. Essays for Richard Cartwright*. Thomson J.J. (ed.). Cambridge and London, The MIT Press. 241-261.

Sobel, J. H. (2008). Collapsing Arguments for Facts and Propositions. *Australasian Journal of Logic*, 6, 122–161.

Suhrawardi (1998). *The Shape of Light: Hayakal al-Nur*. Tr. by Bayrak, T. Louisville, Fons Vitae.

Stein, E. (2002). Finite and Eternal Being. Tr. by Reinhardt, K. F. Washington, D.C., ICS Publications.

van Atten, M., Kennedy, J. (2015). On the Philosophical Development of Kurt Gödel. *Essays on Gödel's Reception of Leibniz, Husserl, and Brouwer*. van Atten, M. Cham, Springer. 95-146.

Wang, H. (1996). A Logical Journey: From Gödel to Philosophy. Cambridge, The MIT Press.

Yourgrau, P. (2005). A World Without Time: The Forgotten Legacy of Gödel and Einstein. New York, Basic Books.

Yourgrau, P. (2023). Does Reason Have Limits? *Annals of Mathematics and Philosophy*, 1(2), 201-242.