Causality, Emergence, and Panentheism

with Benedikt P. Göcke, "On the Importance of Karl Christian Friedrich Krause's Panentheism"; Mariusz Tabaczek, "The Metaphysics of Downward Causation: Rediscovering the Formal Cause"; and Zachary Simpson, "Emergence and Non-Personal Theology"

ON THE IMPORTANCE OF KARL CHRISTIAN FRIEDRICH KRAUSE'S PANENTHEISM

by Benedikt P. Göcke

Panentheism is an often-discussed alternative to Classical theism, and almost any discussion of panentheism starts by way of acknowledging Karl Christian Friedrich Krause (1781–1832) as the person who coined the term.1 However, apart from this tribute, Krause's own panentheism is almost completely unknown. In what follows, I first present a brief overview of Krause's life and correct some misconceptions of his work before I turn to the core ideas of Krause's own panentheistic system of philosophy. In brief, Krause elaborates a scientific holism that is anchored in intellectual intuition of the Absolute as the one principle of being and recognition. The task of philosophical speculation consequently is twofold: the analytic-ascending part of philosophy proceeds by way of transcendental reflection and according to Krause enables us to obtain intellectual intuition. The synthetic-descending part of philosophy starts by way of showing that science as a whole is an explication of the original union of the Absolute as apprehended in intellectual intuition. Once this is achieved, Krause argues that the emerging philosophy of science is most adequately referred to as "panentheism" since everything is what it is "in and through" the Absolute, while the Absolute itself is not reducible to anything in particular. I end by showing how to relate Krause's panentheism to recent philosophical discussion.

Keywords: holism; idealism; intellectual intuition; Karl Christian Friedrich Krause; panentheism

Karl Christian Friedrich Krause (1781–1832) is a forgotten figure in the course of modern philosophy. He was born on May 6, 1781, in Eisenberg in Thuringia in Germany.² In 1801, he obtained a doctorate in Philosophy

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with a work on the inexcusability of white lies. A year later, in 1802, he obtained the German habilitation in Jena with the work *De philosophiae at matheseos notione et earum intima conjunctione*. From 1802 to 1804, he delivered lectures on logic, natural law, and pure mathematics. Although he was quite popular among the students, he left Jena in 1805 as he saw no academic future for himself due to the difficulties the university was having at that time. He went to Dresden where he began a life-long entanglement with freemasonry. However, after initial success as a member of the brotherhood, Krause found himself dismissed from membership. The reason for this seems to be that his book *Die drei ältesten Kunsturkunden der Freimaurerbrüderschaft* which he intended as a blueprint for the reform of freemasonry, by way of making it more universally available, was unacceptable to the traditionalist wing of freemasonry. Krause had his membership revoked in 1810, and he felt persecuted by the Masons ever after (cf. Moßdorf 1811, 264).

In November 1813, because he was unable to find a tenured position at the university, Krause left Dresden for Berlin. He taught successfully there for some time, but once again failed to obtain a tenured position. Disappointed, he moved back to Dresden in 1815 in order to pursue various works in progress. Among these were works concerning mathematics, natural law, metaphysics, education, and speculative theology. From 1815 to 1818, he lived in the same house as Arthur Schopenhauer. However, during this second stay in Dresden, he could not settle and he moved to Göttingen in 1823. Here, he met with the same obstructions that had already plagued him in Jena, Dresden, and Berlin. Although quite popular for a time, Krause was quickly dissatisfied with the number of students, his lack of a tenured position, and the intellectual climate at the university. It is understandable that he remembered melancholically the beginning of his career in Jena: "If I had not ceased teaching at the university in 1804, or had just continued to write, I would not be in a position that Fries or Hegel could look down on" (Krause 1900a, 330). Apart from the bad luck he had finding a job at the university, another problem emerged: Krause was suspected to be part of the Göttinger student rebellion in January 1831. Although he was innocent, the accusation seemed reasonable. For one thing, some of his students were in fact involved, and in addition, he came into a considerable amount of money at this time. It was said that this came from the revolutionary committee in Paris. In fact, the money was part of an inheritance. In spite of his innocence, however, the police forced Krause to leave Göttingen, and he went to Munich where he neither had a job nor any particular prospects by means of which to sustain his wife and their 14 children. On September 27, 1832, soon after his arrival in Munich, Krause had a stroke and died.

Karl Christian Friedrich Krause left an astonishing oeuvre consisting of 256 different books and articles covering almost every branch of

philosophy, the humanities, and the sciences (cf. Ureña and Fuchs 2007, xv). Unfortunately, most of his books are not yet edited, and, apart from two sources, not yet translated into English.³ However, through his pupil Julián Sanz del Río, he gained some popularity in Spain and Latin America, where his philosophy goes by the name of "Krausismo" and where he is sometimes said to be the greatest of the German idealists. ⁴ This slight fame not withstanding, the only tribute paid to him in recent Anglo-Saxon and German philosophy is that he is known as the one who coined the term "panentheism." 5 On the whole, knowledge of Krause is minimal, often false, and invariably incomplete. For instance, it is said that his philosophy is "mystical and spiritualistic" (Zweig 1967, 363), that he was "an obscure [...] figure" (McInnes 1967, 514) who "expressed himself in an artificial and often unfathomable vocabulary which included [...] monstrous neologisms [...] which are untranslatable into German, let alone English" (Zweig 1967, 363). It is said that he was "under the influence [...] of Schelling" (Zweig 1967, 363) and "a student of Hegel" (Hartshorne 1987, 169). While it is simply false that Krause was a student of Hegel⁶ and that he was under the influence of Schelling in any way worth mentioning, 7 it is grossly inadequate to characterize his philosophy as mystical and obscure.⁸ It is true that Krause's philosophy is demanding due to the style of his writing and the neologisms he introduced, but anyone who actually makes the effort to engage with his system will quickly find that it is in no way obscure, let alone mystical, or for that matter untranslatable. Moreover, they will discover that the system is largely coherent.¹⁰

TRANSCENDENTAL PHILOSOPHY AND INTELLECTUAL INTUITION OF GOD

Krause's aim was to establish a system of science-as-a-whole. In this system, every science is related and interconnected with every other science in such a way that the universe of discourse of every particular science can be understood as dealing, respectively, with a different feature of a single principle of recognition, whereas this principle "is that which makes the beginning and is the first ground of everything" (Krause 1869, 10). Since Krause assumed that science-as-a-whole is an image of being—thereby presupposing at least a correspondence, if not an identity theory of truth it follows that this principle of recognition at the same time has to be the principle of being. As Krause says, "science has unity of its principle only if the principle of recognition is nothing over and above the principle of being" (Krause 1869, 10). Since this principle is the first ground of everything, it follows that it is truly unbounded and infinite and thus the only proper object of science. Furthermore, since Krause also calls the one principle of being and recognition "God," "Orwesen," or "the Absolute," it can be said that in Krause's system, God is the one and only proper object

of science-as-a-whole. Complete recognition of God therefore logically entails recognition of each and every truth to be found in the sciences.

Krause calls the recognition of the one principle of science the "intellectual intuition of God" ("Grundschauung: Gott"). In order for science to be possible for us in principle, we therefore have to be able to obtain at least partial intellectual intuition of God as the one principle of being and recognition. 11 The demand that we only have to recognize some of the features of the Absolute is reasonable since we are finite beings. We could never fully grasp all the features of this infinite principle. Consequently, science is a never-ending task of humanity as such. Furthermore, since only an absolutely certain and immediate recognition of the principle of science can avoid scientific relativism according to which science might just be a consistent but false system of putative recognitions, the intellectual intuition of God as the one principle of science has to be immediate and absolutely certain itself.¹² That is, Krause argues that the principle "has to be recognized as that which in itself and through itself is immediately certain" (Krause 1869, 12) in order to avoid the possibility of scientific relativism.

Although this intuition has to be immediate and absolutely certain, not everyone is able to comprehend it without further philosophical aid. Krause provides this aid in the "analytic-ascending" part of science. The task of the analytic-ascending part of science is to show that transcendental reflections on the condition of the human subject lead to the recognition of the one principle of being and recognition. Krause is aware that he can only pave the way to obtaining intellectual intuition: "Everyone has to find the intuition in himself; we cannot force it from the outside to happen inside" (Krause 1869, 49).

Krause draws two important conclusions in the analytic-ascending part of science that, according to him, prepare us to obtain the absolutely certain and immediate intellectual intuition of God as the one infinite principle of science. First, he argues that there is a set of basic transcendental categories according to which our recognition is structured. Second, he argues that the transcendental logic of recognition entails that any recognition is triadic, consisting of a recognizing subject, a recognized object, and a principle uniting the object and the subject. As regards the first point, Krause rejects the Kantian categories of understanding as arbitrarily chosen and suggests his own categories. According to Krause, there are material and formal categories of understanding. Very roughly, material categories concern the fundamental properties of the objects of our understanding, whereas formal categories concern the fundamental mode of givenness of these objects. The three basic material categories of understanding, according to Krause, are unity, wholeness, and itselfness, while the three basic formal categories are positivity, directedness, and composedness. Since our understanding of any object is also an understanding of this object

as a unity of its properties, Krause introduces the category of original unity, which denotes the union of the material and formal categories of any entity.¹³ Everything we recognize, Krause argues, is subsumed under these categories. Furthermore, since the principle of recognition is at the same time the principle of being, the transcendental categories of understanding are at once the transcendent categories of things-in-themselves.

Krause illustrates the alleged adequacy of his categories with the example of a grain of sand: "I think about a grain of sand. Although my recognition of this entity might be imperfect, I cannot fail (...) to think of it as possessing original unity, I cannot fail to think of it as possessing itselfness and wholeness, and also the unity of itselfness and wholeness. Furthermore, I distinguish the grain of sand as a whole from its parts, its internal constitution. (...) I cannot fail to think of the grain of sand as something positive which is directed upon itself in its act of being and thereby composes itself completely" (Krause 1869, 221).

Since we conceive of every object of the mind as subsumed under these categories, one might wonder whether we also think about the principle of being and recognition as subsumed under them. The answer is "yes and no." "Yes" insofar as Krause argues that we also think about the one principle in terms of the mentioned categories. "No" insofar as the one principle is the ultimate ground of everything and therefore cannot be subsumed under these categories. This would entail that there is another, more basic principle which explains that the former falls under these categories, which is impossible as regards the ultimate principle of science. Instead, the one principle of recognition and being is the original unity of these categories and as such is indistinguishable from their union. That is to say, the one principle is the most fundamental original unity of the distinct formal and material categories of understanding; it is not *subsumed* under the categories of wholeness, positivity, and itselfness, but it is itself the original unity of them. The highest principle is wholeness and positivity and itselfness all at once, and therefore can be addressed as the highest idea of reason according to which every recognition and every thing-in-itself is structured.

As regards the second conclusion of the analytic-ascending part of science, in order to understand how to obtain the intellectual intuition of God, that is, in order to understand that it is absolutely certain and immediately clear that there is this principle, we have to reflect on the finitude of the I itself and on the structure of recognition as such. According to Krause, "recognition is a relation of an essential union of the recognized as an independent entity with the recognizing as an independent entity. It therefore follows that if we assert a recognition to be true, we then have to assert, too, that the recognized and the recognizing are related in such a way that the object of the recognition in this recognition is present

to the recognizing subject according to its essence" (Krause 1869, 254). Recognition is thus not a binary relation between the cognizing subject and the cognized object, but rather a triadic relation amongst the recognizing subject, the recognized object and a principle that respecting their mutual independence unites the subject and the object into recognition. While the I as a principle of every recognition concerning itself is the principle of itself, it follows that if the I has knowledge of something which is not within the I, that is, of something which is "outside of" it, it cannot be the uniting principle of the resulting recognition itself. As Krause says, "we have to assume that corresponding to each and every thought which concerns what is not within the I there is a uniting element outside of the I" (Krause 1869, 255–56). This principle outside of the I is what unites the I as a recognizing subject with the object as a recognized object. For instance, if I recognize a table as a finite object outside of myself, then a principle is needed in and through which the table as the recognized object and I myself as the recognizing subject are united into recognition. Because as the *relata* of this recognition neither I nor the table can be the uniting principle, the principle itself has to be thought of as distinct from myself and the table.

Given that the one principle of being and recognition, that is, God, is available as a thought that transcends the I, we have to assume that its true recognition is possible only if there is a uniting principle such that it unites the I as the recognizing subject with the one infinite principle as the recognized object. The crucial step in Krause's argument is the already mentioned condition that the recognition of the one infinite principle of science has to be immediate. It must not be thought of as mediated via a separate principle. This would contradict the immediacy of the respective recognition as well as the infinity of the one principle. It follows that although there has to be a uniting principle for a successful intellectual intuition of the one infinite principle, this principle cannot be anything but the one infinite principle itself. As Krause says, "by way of thinking the thought God we are at once conscious that this thought, even as our thought, cannot be caused and justified by us ourselves nor by any other finite being. Instead, the possibility and actuality of this very thought can only be thought of as justified and caused by its content, that is, through God or Essence itself' (Krause 1869, 256). Since we already know that we have the thought of the one infinite principle of being and recognition in ourselves, we reach the intellectual intuition of God when we understand that God itself as the one principle of being and recognition justifies and causes us to possess immediately certain knowledge of himself. That is to say, the intellectual intuition of God is obtained by whomever it is that intuits God as the one infinite principle of science or "as the one unconditioned independent, identical, and whole one Essence" (Krause 1869, 204).

SCIENCE AND PANENTHEISM

Once we have obtained intellectual intuition of God as the one infinite principle of being and recognition, the task of the analytic-ascending part of science is finished and we can turn to the synthetic-descending part that starts with the intellectual intuition and "deduces" the whole system of science "out of" this intuition. In what follows, I can only mention two important conclusions of the synthetic-descending part of science. First, according to Krause, the whole of science can be understood as a making explicit of the categorical original unity of the one principle of being and recognition. Second, the relation between God and the world has to be thought of analogously to the relation between a whole and its parts in such a way that the whole as a whole is more than its parts, while the parts are nothing external to the whole. This, Krause argues, inevitably leads to the thesis of panentheism.

As regards science-as-a-whole, Krause argues that the universe of discourse of every science is precisely determined by a respective corresponding material or formal category that is part of the original unity of the Absolute. The interdisciplinary relations between different sciences, consequently, mirror intracategorical relations between the different categories of the original union of the Absolute in such a way that science-as-a-whole can be understood to be an infinite making-explicit of the original unity of the Absolute. In other words, Krause's philosophy of science is a scientific holism, the truth of which is justified through the intellectual intuition of God. For instance, there is a science of which the universe of discourse is determined by the category of wholeness, a science which Krause calls mathematics and which we would refer to as set theory or mereology. The task of mathematics is to specify further the concept of a whole in relation to its parts. Mathematics thus is a science of a particular feature of the Absolute because the original unity of the Absolute is also wholeness itself. Furthermore, since, for example, the original unity of the Absolute is also positivity, there is another science the universe of discourse of which is determined by the category of positivity. It deals with what it means to be positive or to be a positive object of the mind. Krause here thinks of something like phenomenology or philosophical reflections on givenness as such. Since the Absolute is the original unity of its features, however, it follows that the Absolute also is the unity of wholeness and of positivity. Corresponding to this unity of wholeness and positivity, there is consequently another science where the universe of discourse is determined by the category of the positivity of wholes which might be referred to as Gestalt psychology.

Let us turn to the relation between God and the world. Before Krause specifies this relation, he introduces a division between two distinct modes of conceiving any kind of object: we can consider an object as such and we

can consider it *in itself*. To consider an object as such means to consider it as a whole and, insofar as it is a whole, without recurrence to its internal constitution or parts. To consider an object in itself is to consider it as regards its internal constitution or parts and how they relate to the whole they constitute. To deploy a modern example, if we consider water as such, then we consider water insofar as it is distinguished from the molecules of which it is constituted. Water as such is wet, fills the rivers and oceans around us, can freeze, etc. Water in itself is constituted of H₂O molecules none of which as such has any of the properties of water as such. Water, insofar as it is a whole, is distinguished from its parts although it is not independent from its parts.

The distinction between "as such" and "in itself" brings to mind the modern concept of emergence and applies to anything on any level of constitution. It also applies to the Absolute, that is, to the one infinite principle of being and recognition. Depending on how we conceive of the Absolute we either obtain the conclusion that everything is "in" the Absolute or that the Absolute is "outside of" the world. In this respect, Krause's theory of the relation between God and world puts us in mind of the fact that how we interpret things depends on how we understand them—whether as such or in themselves—while the things do not themselves change.

Let us start with conceiving of the Absolute as such. Conceived of in this way it is impossible that there is something "outside" of or "next to" or "in addition" to it since as the one principle it is the ground of everything. There could be something "outside" of the principle if and only if the one principle as such would not be the ground of everything. However, if nothing can be "outside of" God as such, then the world has to be "in" God as such, whereas Krause is aware that the use of these common language prepositions is problematic when it comes to philosophy: "Of course, in our ordinary language, all words which denote relations between things are based on spatial connotations like 'in,' 'outside of,' 'in addition to,' 'above,' 'below,' 'next to' (...). But all these words have to be spiritualized, and have to be understood in a way independent from the senses if they are used in philosophy. Therefore, we may not twist the philosopher's words as if he is speaking about spatial relations, particularly we may not do so when he speaks about the infinite and the finite" (Krause 1869, 303). Krause deploys the following definition of "in": "I deploy 'in', in respect of finite beings and their properties, in such a way that the whole has this finite entity as its part such that this finite entity is the same as the whole as regards its categories, while it is limited in the following way: the limitation of the finite entity is the same as that of the whole, whereas this limitation does not limit the whole as a whole" (Krause 1869, 307). For example, the sun is in the universe since the spatial limitation of the universe is at once a spatial limitation of the sun—they share in the same

spatial categories—although the precise spatial limitation of the sun is not the spatial boundary of the universe. ¹⁴ Consequently, that everything is "in" the one principle means that everything shares its categorical essence with the categories that have their purest form in the original unity of the one principle in such a way that no single finite entity actually is a limitation of the principle as such. Everything is "in" God as such because everything is what it is only through participation in the original unity of the Absolute.

However, considered *in itself* there is a distinction between the Absolute and the world, a distinction which is reminiscent of the distinction between a whole insofar as it is a whole and its internal constitution or parts. Insofar as the whole as a whole is not identical to its parts and not reducible to any of its parts, it is distinguishable from its internal constitution. Krause calls God insofar as God is distinguished from what he is principle of "Urwesen" and insofar as we consider the whole together with its internal constitution, that is, insofar as we consider the essential unity between the principle and what it is principle of: "Orwesen." If we conceive of God as Orwesen, then the world is internal to God in the same way in which the parts are in the whole. If we conceive of God as Urwesen, God is outside of the world in the same way in which the whole is something over and above its parts.

The distinction between Orwesen and Urwesen, according to Krause, answers the question "of whether God is an extramundane and the world is an extradivine being or not [... since] through the distinction of Orwesen from himself as Urwesen one can see that God, as the One, identical, whole Essence, is neither out of nor above, nor next to, nor in the world, [...] and that God as Urwesen is outside of and above the world, and the world outside of him as Urwesen" (Krause 1828, 401). Given Krause's remark on science as a whole and his dialectical stance on the relation between God and the world, he is able to draw the conclusion that panentheism is an adequate name for his system of philosophy. In Krause's words, "since in the intellectual intuition of God we find that Orwesen, as the One, also in itself and through itself, below itself is everything, also everything finite, we have to assert that the One in itself and through itself is the All, and since in the intuition of God we recognize that God is everything in Himself, below Himself and through Himself, it would not be false to call science panentheism" (Krause 1869, 313).

There is a fundamental objection against Krause's philosophy. Krause anticipated it and formulates is thus: "You will object that my philosophy is circular. I know this; it is on purpose and cannot be any different. The circle itself is the following: in order to start with philosophy you have to have the belief that the whole world is harmonic, and once you are done philosophizing, you come back to where you started. But most importantly,

we have to notice that that which is true is that without which humans cannot be. If this is the case, then the truth has to be abdicated in every human, even in the most uneducated ones, even if in a very peculiar manner since without truth nobody can live. Therefore, it is no surprise that at the beginning of philosophy, we do not doubt what at philosophy's end we only know much deeper and better" (Krause 1889, 66). The rationale behind this objection is that Krause's panentheism is circular from the very beginning since he starts with a particular conception of science and truth which analytically entails that there has to be one principle of being and recognition. Furthermore, given his definition of "in" it comes as no surprise but is an analytic entailment that everything is what it is "in and through" the one principle. One might say that Krause defined his terms in such a way that the results cannot fail to entail the kind of panentheistic system he explicated. However, if there is any force behind this objection, then it is an objection against any system of philosophy that is based on intuitions. Since arguably any system of philosophy is based on intuitions, this objection seems to me to be quite powerless. It is true, Krause elaborated a system of philosophy that is based on his intuition that being and recognition belong together and are intelligible if and only if they can be related to an ultimate and first infinite principle of being and recognition. It is also true that he tried to make this consistent given his definition of "in," and therefore, it is to a certain extent circular. However, this circularity does not seem to be vicious but is instead part of any holistic understanding of reality the aim of which is to understand the whole of being and its internal constitution.

THE IMPORTANCE OF KRAUSE'S PANENTHEISM

Of course, the above can only provide a glimpse of Krause's panentheistic system of philosophy, which he elaborated in several of his books and articles. However, it should be enough to see in which ways Krause's philosophy might provide interesting stimuli for recent discussions in philosophy.

First, Krause's panentheism can be connected with recent debates in the philosophy of religion, where philosophers and theologians like Whitehead, Hartshorne, and Clayton discuss panentheism as an alternative to classical theism (cf. Brierley 2004). Now, "as such panentheism attempts to steer a middle course between an acosmic theism, which separates God and World (G/W), and a pantheism that identifies God with the universe as a whole (G=W). Positively speaking, panentheists want to balance divine transcendence and immanence by preserving aspects of the former's claim of God's self-identity while embracing the latter's intimacy between God and Universe" (Gregersen 2004, 19). The most serious problem for panentheism is to find a fitting interpretation of the preposition "in." As Gregersen continues to argue, "the little word 'in' is the hinge of it all"

(Gregersen 2004, 19). Apart from the spatial interpretation which Krause was right to exclude, the following interpretations of "in" have been discussed recently: "The world is 'in' God because: [...] 2. God energizes the world, 3. God experiences or 'prehends' the world [...] 4. God ensouls the world, 5. God plays with the world [...] 6. God 'enfields' the world, 7. God gives space to the world, [...] 9. God binds up the world by giving the divine self to the world, 10. God provides the ground of emergences in, or the emergence of, the world [...], 11. God befriends the world [...] 12. All things are contained 'in Christ' [...] 13. God graces the world" (Clayton 2004, 253). Krause's categorical interpretation of "in" is not included in the list and offers an important addition. According to Krause, the world is "in" God since everything is what it is only by way of categorical participation in the original union of the Absolute, whereas the Absolute as the first principle is not reducible to anything it is principle of. Further discussion could improve and refine Krause's interpretation of "in." It could elaborate upon his categorical onto-epistemology by way of clarifying in more detail the metaphysical relations between the material categories "unity," "wholeness," and "itselfness" and the formal categories "positivity," "directedness," and "composedness." Further analysis of the relations between these categories is at once an illumination of the categorical essence of each and every entity as well as it is a positive approach to understand the original union of the Absolute as the first principle of ontology and epistemology. That is, the more we know about the relations between these categories, the more we understand about the Absolute and the world's being "in" the Absolute according to its categorical essence. 15

Second, Krause's distinction between conceiving an entity as such and in itself could help to clarify God's relation to the world. As we saw above, Krause argued for the following: conceived of as "Orwesen," God is the one truly infinite and unbounded first ground of everything outside of which and independent of which nothing can be. Conceived of in itself, however, God can be distinguished from the world as "Urwesen" analogously to the way in which a whole as a whole can be distinguished from its parts and is more than its parts. This distinction between "Orwesen" and "Urwesen" arguably is a predecessor of Hartshornes's dipolar conception of God according to which God is both the universal cause of reality—Krause's "Urwesen"—and the all-inclusive reality itself—Krause's "Orwesen" (cf. Hartshorne 1953).

Third, the distinction between considering an entity *in itself* and considering it *as such* can also be deployed in order to conceptualize the various systematic interrelations between entities and systems of entities discussed in the sciences. As Edwards (2004, 202) says, "when science looks at any thing at all—whether it be a proton, a galaxy, a cell, or the most complex thing we know, the human brain—it finds systems of relationships. Every entity seems to be constituted by at least two

fundamental sets of relationships. First, there are the interrelationships between the components that make up an entity. Thus, a carbon atom is constituted from subatomic particles (protons, neutrons, and electrons). Second, there is the relationship between the entity and its wider environment." In Krause's terminology, we can state this as follows: insofar as we consider the components that make up an entity, we consider the entity in itself and insofar as the entity in question is part of a wider environment we consider it as such. Since the distinction between considering an entity in itself and as such applies at any level of ontological constitution, it follows that the resulting model of intra- and interlevel relationships between entities and systems of entities is a holistic one. For instance, we can consider a human being as such and in itself. If we consider it as such, then we consider it as a self-directed, whole, and unified entity, which is part of a larger whole, for instance, humanity. If we consider it in itself, then we can consider it, for instance, insofar as it is constituted by billions of atoms. We could then go on to consider humanity as such and in itself and the atoms as such and in itself and so forth in order to obtain a holistic system of systems structured by the relations of as-such-ness and in-itself-ness.

This leads to a fourth consideration in respect of the importance of Krause's philosophy: his panentheism can contribute to recent discussions in the philosophy of science, where the paradigm of reductionism has arguably lost its force due to its complete failure, epistemologically or ontologically, to reduce the different sciences and humanities to a single science like physics. 16 Krause's panentheism provides interesting input since it is an example of a scientific holism that nevertheless does not entail scientific relativism, a danger that the former often entails. That is, discussion in the philosophy of science could benefit from Krause's panentheism insofar as he tried to explicate how there can be a relative autonomy of each and every science, while still every science yet is of necessity related to any other science in such a way that the whole of science is a system in which every part "is harmonic and united with every other part, not just as a whole in which parts are next to each other, united to a mere aggregate, but rather as a whole wherein all parts are what they are only in and through the whole" (Krause 1869, 5). 17 Of course, the price to pay is the assumption that intellectual intuition of God is possible, which is to say that we have to suppose that an ultimate foundation in the philosophy of science is possible, where it is the responsibility of each and every subject to obtain this intuition for herself.

The biggest problem for Krause's panentheistic philosophy results from the impossibility of objectively communicating the foundation of science as a whole, that is, the intellectual intuition of God. The impossibility of communicating the foundation of science entails that we cannot objectively argue for the truth of what is apprehended during the intuition of the foundation of science. Krause's foundation of science, particularly his basic categories, therefore will inevitably seem to be arbitrary to those who do not agree with him, that is, to those who do not have the same intellectual intuition of God as Krause did. This as such does not entail that Krause is mistaken or wrong as regards his foundation of science. But accepting the possibility of intellectual intuition of God as the highest idea of reason will be a huge obstacle to taking Krause seriously for many engaged in current discussions in the philosophy of science. The idea that intellectual intuition of God could provide a foundation in the philosophy of science is so utterly alien that it is often simply excluded. If, however, we want to establish a system of science and continue to assume that truth at least consists in a correspondence between our thoughts and things-in-themselves, then some sort of system like Krause's seems to be unavoidable.

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 - 2. Cf. Ureña 1991 for further biographical information on Krause.
- 3. According to Ureña and Fuchs (2007, lxx) there are only two translations of Krause's work into English: Krause (1900b) and Krause (1933).
- 4. Cf. Zweig (1967, 365): "Krause's philosophy, while not very influential in Germany, found considerable support in Spain, where, for a time, 'Krausism' flourished. This was largely due to the efforts of Julian Sanz del Rio, the minister of culture, who visited Germany and Belgium in 1844 and came into contact with a number of Krause's disciples, notably Heinrich Ahrens in Brüssels and Hermann von Leonhardi in Heidelberg," Cf. also McInnes (1967, 514): "Spanish Krausism was less a philosophy than a cult, a rationalist religion that can be regarded as a forerunner of the Modernist movement in Catholicism. Its adherents behaved like members of freemasonry, and it is doubtful whether many of them understood Sanz del Rio's obscure books on his even more obscure master [Krause]."
- 5. Cf. Cooper (2006, 26): "Panentheism literally means 'all-in-God-ism.' This is the Greek-English translation of the German term *Allingottlehre*, 'the doctrine that all is in God.' It was coined by Karl Krause (1781–1832), a contemporary of Schleiermacher, Schelling, and Hegel, to distinguish his own theology from both classical theism and pantheism." Cf. also Gregersen (2004, 27–28): "The very term 'panentheism' was coined as late as 1829 by the post-Kantian philosopher and mystic Karl Christian Friedrich Krause (1781–1832)." Cf. also Hartshorne (1987, 168), Pailin (1994, 116), and Palmquist (2008, 19). Clayton (2008, 169) states the following: "Schelling (is) one of the earliest explicit panentheists in modern thought. (As far as I know, his 1809 use of the phrase 'pan+en+theismus' is the first instance of this term.)" However, Clayton does not provide a reference concerning where exactly Schelling is supposed to use this phrase. Schelling arguably grapples with panentheistic thought in his 1809 *Über das Wesen der menschlichen Freiheit*, but he does not call his considerations "panentheistic" (cf. Fuhrmans 1950, kvii). In contrast, Krause explicitly refers to his system of philosophy as panentheism, cf. Krause (1869, 313).
- 6. Hegel and Krause were colleagues in Jena, lecturing at the same time. Cf. Krause (1890, 16): "Fries and Hegel knew me personally, and I lectured simultaneously with them in Jena in the years 1802–1804."
- 7. Krause visited some of Schelling's lectures but did not like either them or Schelling much. Cf. Krause (1903, 7): "I like Schlegel very much, but not Schelling" and Krause (1903, 11).

- 8. A notable exception is McFarland (1969, 268).
- 9. Krause was well aware that his project to develop and deploy a purely German scientific language had a huge opposition. Cf. Krause (1890, 80): "My scientific expressions will be conspicuous to those used to the common way to express these matters and will be considered without taste and mocked and ridiculed as pedantic by those who have no clue about the need for a short and scientific designation of the basic truths of science and life, but they will be understood and adapted by professionals since they are beautiful in themselves and at the same time educational and scholarly."
- 10. "It is therefore false that the earliest clear-cut panentheism [...] seems to have been that of Fechner" (Ferm 1945, 557). While Krause's panentheism arguably is the first explicit system of panentheism, it also has to be noted that Krause's adherents were overly excited by his panentheism. In the preface to his translation of one of Krause's books, Hastie states the following: "His enthusiastic disciples claim for him that his system is the truest outcome of modern speculation; that it brings all contemporary knowledge and science into completest harmony; and that the Twentieth Century, understanding and appreciating Krause better than the Nineteenth Century has done, will find the certainty, security, and unity we long for in his profound rational 'Panentheism'" (Krause 1900b, x).
- 11. Cf. Krause (1893, 22): "If science is possible, then it has to entail intellectual intuition of the one principle, and everything which science recognizes has to be recognized through the principle."
- 12. Krause was aware that a coherence theory of truth is not enough to justify the possibility of science: "In order for science to be science (that is, science as such), it has to be systematic. This alone, though, is not enough since based on arbitrary assumptions it can happen to obtain a coherent system of conclusions and recognitions which yet is no knowledge; errors can generate a coherent system" (Krause 1892, 53).
- 13. In German, the categories are: Einheit, Selbheit, Ganzheit and Satzheit, Richtheit, and Fassheit. "Wesenheitureinheit" denotes the original union, which is essential for being any kind of entity at all.
- 14. Krause specifies this example as follows: "In this manner, we say that a finite object, for instance, this sun, is in the universe. This contains the following composite thought: The sun is something finite; it is part of its higher whole, that is, the universe. According to its categorical essence, the sun is uniform with the universe, but it is limited and the sun's limitation at once both distinguishes it from the whole of nature and also unites it with the universe. Furthermore, the mentioned limitation is only the limitation of the sun—not the whole of nature, as a whole, is limited thereby. All of this is what we want to say in saying that the sun is in the universe" (Krause 1869, 308). Applied to the I itself, Krause provides the following specification of his definition of "in": "Likewise, when we assert that the I, or any finite reasonable creature, is in God, what is meant is the following: God also is this I and any other I, but only as a part of his essence. We do not assert that God as such is a particular finite I (...). Furthermore, it is meant that the I, according to its categorical essence, is uniform with God in such a way that the I possesses itselfness and wholeness—like God is itselfness and wholeness—but the I possesses it in a finite and limited way" (Krause 1828, 307–308).
- 15. Since, according to Krause, the world's being "in" God has to be understood as the world's participation in the original union of the Absolute, it might also be interesting to compare Krause's theory of the world's being in God with Thomas Aquinas' account of God's being in the world. According to Thomas, "God exists in everything; not indeed as part of their substance or as an accident, but as an agent is present to that in which its action takes place . . . Now since it is God's nature to exist, he it must be who properly causes existence in creatures . . . So, God must exist intimately in everything" (ST I 8 a1). In general, as I have argued elsewhere (cf. Göcke 2012), the distinction between Thomistic classical theism and German idealistic panentheism might turn out to be mostly a disagreement about terms, not about the matter as such.
- 16. Ontological reductionism is "the assertion that the whole really is, in the final analysis, nothing but the sum of the parts, and that the formulation of concepts, theories, and experimental procedures in terms of higher level concepts is merely a convenience" (Davies 2009, xii).
- 17. Cf. also Peacocke (2004, 147–48): "A further pointer to the cogency of a panentheistic interpretation of God's relation to the world is the way the different sciences relate to each other and to the world they study—the hierarchy of sciences from particle physics to ecology and sociology. The more complex is constituted of the less complex, and all interact and interrelate

in systems of systems. It is to this world discovered by the sciences that we have to think of God as relating."

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