

THE MEANING OF “APPEARANCE” IN KANT AND GOETHE

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Abstract: Both for Kant and for Goethe, man lives in a phenomenal world. However, the meaning of “appearance” or “phenomenon” differs, which also entails different worldviews. For Kant, appearance ultimately has a mathematical structure, whereas, for Goethe, it has a symbolic nature. The following paper explores the reasons why these two thinkers see this topic so differently despite their apparent accord concerning phenomenality.

Keywords: appearance; science; mathematics; symbol; infinity.

One of the striking differences when comparing Goethe’s understanding of “appearance” or “phenomenon” (Germ. *Erscheinung*, but also *Phänomen*) with Kant’s understanding is the importance of mathematics in how these two thinkers built this concept. Ernst Cassirer sees a “personal conflict”¹ between Goethe and mathematics, which others have considered made Goethe misunderstand Newton’s view of light. Kant’s philosophy is a kind of ontology aiming at grounding Newton’s science of nature. By contrast, because of Goethe’s stance towards mathematics, his understanding concerning the science of nature is seen as being grounded in the artist’s view of nature. Also, Kant’s deep understanding of the most recent developments in the science of his time, especially of the Newtonian science of nature, led him to an entirely new philosophical paradigm.

Two moments were so perplexing for Kant that he acknowledged they had woken him up from his dogmatic slumber: on the one hand, Hume’s view of causality;² on the other hand, but closely related to this, the question about the possibility of scientific knowledge, i.e., of synthetic a priori, universal and necessary cognitions³. This kind of knowledge, as Kant saw it, was not based on induction and generalization (as Hume thought) but on mathematics, which means deduction; therefore, it completely eluded the Humean critique of causality (*Critique of Pure Reason*, B 19-20). Kant’s problem was much more profound than only asking about the possibility of making generalizations based on past experiences. It

¹ Ernst Cassirer, “Goethe und die Mathematische Physik,” in Ernst Cassirer, *Idee und Gestalt. Goethe, Schiller, Hölderlin, Kleist. Fünf Aufsätze* (Berlin: Bruno Cassirer, 1921), 30.

² Immanuel Kant, *Prolegomena to Any Future Metaphysics That Will Be Able to Come Forward as Science*, With Selections From the *Critique of Pure Reason*, translated and edited by Gary Hatfield, (Cambridge: Cambridge University Press, 2004), 10.

³ Immanuel Kant, *Critique of Pure Reason*, translated by Paul Guyer and Allen W. Wood, (Cambridge: Cambridge University Press, 2000), B 19-20.

regarded the possibility of having mathematical knowledge of nature, i.e., a form of knowledge that not only can make accurate predictions but is deduced from principles. Such principles could not have originated in any past experience, both because they were universal and necessary but also because they grounded other universal and necessary cognitions that were deduced from them. In other words, when, in the mathematical science of nature, one predicts the course of a phenomenon, one does not simply make generalizations (needing thus the knowledge of many similar cases), but one deduces that course from a higher principle, making the case of that phenomenon into a particular case of the principle.

The modern success of Newtonian physics—a very different kind of physics in comparison to pre-modern science, Aristotelian science—was a confirmation of its truth, which meant, for Kant, that its knowledge could not be something transient but corresponded to a more profound and immutable relationship between the knowing subject and its object, between knowledge and nature. According to Kant, the sure path of science was reached quite late in the history of mankind, and this path consisted of discovering a deductive type of knowledge in general and about nature in particular (*Critique of Pure Reason*, B XI-XIII).

Newtonian knowledge of nature is mathematical knowledge, which means quantitative knowledge. But quantity is a determination of space and time. It was not by accident that early in modernity, science started to influence the ontological understanding of things by making philosophers think that there were two kinds of qualities of things, the primary ones—that were quantitative and corresponded to their spatial and temporal ways of being (what Descartes called the extensive substance)—and the secondary ones—that were qualitative and corresponded to how the human subject experienced objective things. Because of the internal relationship between mathematics and space and time in Newtonian science (which integrated mathematics and geometry), i.e., because this science showed that, within it, knowledge was a universal spatial and temporal specification of relationships between things, Kant considered that space and time could not be objective features of things, but must be subjective conditions of things (*Critique of Pure Reason*, A 26/B 42; A 31-34/B 47-50). Previously, philosophers considered space and time the fundamental conditions of the existence of things. Newton regarded them as a sort of absolute entities, “without relation to anything external”,⁴ whereas, for Leibniz, they were “something purely relative,” an (objective) order of coexistences and successions;⁵ however, for both philosophers, real things existed in an objective spatial and temporal order. This could no longer hold for Kant. Indeed, to some extent, Leibniz anticipated Kant’s philosophy in that he thought that monads could not have any immediate access to what lay outside themselves.⁶ But he still kept the metaphysical assumption of a pre-established harmony

⁴ Sir Isaac Newton’s *Mathematical Principles of Natural Philosophy and His System of the World*, translated into English by Andrew Motte in 1729, volume one: *The Motion of Bodies* (Berkeley: University of California Press, 1974), 6.

⁵ G. W. Leibniz and Samuel Clarke, *Correspondence*, edited, with introduction by Roger Ariew (Cambridge: Hackett Publishing Company, Inc. 2000), 14.

⁶ *Leibniz’s Monadology. A New Translation and Guide*, translated by Lloyd Strickland (Edinburgh: Edinburgh University Press, 2014), 15.

between what the monad saw within itself and the external world in which it existed, though it had no access to that world (*Leibniz's Monadology*, 26).

Kant refuted this assumption, stating that nothing could confirm it (*Critique of Pure Reason*, A 275 ff./B 331 ff.). Instead, he claimed that he could devise an “experiment of pure reason” (*Critique of Pure Reason*, B XXI) through which a different metaphysical hypothesis might be proved, and this consisted of what he called “the transformation in our way of thinking” (*Critique of Pure Reason*, B XXII), the view of his transcendental idealism. According to this assumption, mathematical prediction of the course of things is possible only because space and time are not real but a priori conditions of our perception of things, i.e., a priori intuitions, meaning that objects need to conform to our way of representing them (*Critique of Pure Reason*, B XXI).

The immediate consequence of this new perspective was that things in space and time could no longer be seen as “things in themselves” but only as “appearances” (*Erscheinungen*) or phenomena. However, there was much more than that. The fundamental consequence was that all such phenomena, or, expressed more generally, all empirical content, all that we experience, must ultimately have a mathematical character. This is because the a priori intuitions of space and time – which organized whatever human knowledge received from outside into spatial and temporal forms, and set, therefore, from the beginning, all phenomena into specific spatial and temporal relations–were mathematical magnitudes. Another necessary consequence was that real, true knowledge of phenomena could only be a mathematical science:

I assert, however, that in any special doctrine of nature there can be only as much *proper* science as there is *mathematics* therein. For, according to the preceding, proper science, and above all proper natural science, requires a pure part lying at the basis of the empirical part, and resting on a priori cognition of natural things. Now to cognize something a priori means to cognize it from its mere possibility. But the possibility of determinate natural things cannot be cognized from their mere concepts; for from these the possibility of the thought (that it does not contradict itself) can certainly be cognized, but not the possibility of the object, as a natural thing that can be given outside the thought (as existing). Hence, in order to cognize the possibility of determinate natural things, and thus to cognize them a priori, it is still required that the *intuition* corresponding to the concept be given a priori, that is, that the concept be constructed. Now rational cognition through construction of concepts is mathematical. Hence, although a pure philosophy of nature in general, that is, that which investigates only what constitutes the concept of a nature in general, may indeed be possible even without mathematics, a pure doctrine of nature concerning *determinate* natural things (doctrine of body or doctrine of soul) is only possible by means of mathematics. And, since in any doctrine of nature there is only as much proper science as there is a priori knowledge therein, a doctrine of nature will contain only as much proper science as there is mathematics capable of application there.⁷

⁷ Immanuel Kant, *Metaphysical Foundations of Natural Science*, translated and edited by Michael Friedman, (Cambridge: Cambridge University Press, 2004), 6.

Therefore, as long as some particular kind of knowledge did not reach a mathematical way of determining its object, it could not be an actual science in Kant's view.

This new metaphysical distinction between phenomena and things in themselves shaped the rest of Kant's philosophy. Although, before him, philosophers always admitted the distinction between phenomenal (apparent) knowledge and intellectual knowledge, between things as they appear and how our mind can think of them, i.e., between opinion and certainty, this distinction was never so radical as Kant presented it. Its radical character consisted of the fact that the human intellect was now comprehended as entirely dependent on the spatial and temporal structures of sensibility, which was never thought of before. Consequently, all the instruments of this intellect transformed from a higher way of understanding "nature itself" into a means to determine our sensibility, a sensibility now completely disconnected from - and foreign to - all possible "nature itself."

Of course, Goethe could never have agreed to such a view. Although he very much appreciated Kant's philosophy, he did not manage to "follow Kant," as he acknowledges.⁸ Although he made several attempts to understand Kant's *Critique of Pure Reason*, where the basis of Kant's philosophy lay, he did not succeed. This did not happen with Kant's *Critique of the Power of Judgment*, which was devoted precisely to Goethe's main interests: biology (especially regarding teleology) and art. With this book, Goethe confesses that "a wonderful period arrived in my life" (SS, 29) Here, Goethe found his "most disparate interests brought together" (SS, 29). This might seem very paradoxical. How is it possible to agree with Kant in one part of his philosophy without knowing Kant's entire conception, especially if we know that Kant saw his philosophy as a system or a whole that

is therefore articulated (*articulatio*) and not heaped together (*coacervatio*); it can, to be sure, grow internally (*per intus susceptionem*) but not externally (*per appositionem*), like an animal body, whose growth does not add a limb but rather makes each limb stronger and fitter for its end without any alteration of proportion. (*Critique of Pure Reason*, A 833/B 861)

Therefore, says Kant:

What we call science, whose schema contains the outline (*monogramma*) and the division of the whole into members in conformity with the idea, i.e., a priori, cannot arise technically, from the similarity of the manifold or the contingent use of cognition *in concreto* for all sorts of arbitrary external ends, but arises architectonically, for the sake of its affinity and its derivation from a single supreme and inner end, which first makes possible the whole; such a science must be distinguished from all others with certainty and in accordance with principles. (*Critique of Pure Reason*, A 833-834/ B 861-862)

⁸ Johann Wolfgang von Goethe, *Scientific Studies*, edited and translated by Douglas Miller, (New York: Suhrkamp Publishers, 1988), 29 (referred hereafter as SS).

Goethe could adopt Kant’s views from his *Third Critique* wholeheartedly because they sounded very similar to the premises of his thinking. In the center of his own thought, as in the center of Kant’s thought, was located the concept of *Erscheinung* (*appearance*), which Goethe sometimes distinguishes from *Phänomen* (*phenomenon*). However, the specific structure of the appearance, as well as the general theoretical framework in which this concept was thought of, were different.

A first feature of how Goethe understands this concept is close to how traditionally it had been understood, namely as an unclear knowledge of things, things as they are given within our common experience. In this regard, Goethe speaks about an “empirical phenomenon”,⁹ which also corresponds to how Kant defines the appearance: “The undetermined object of an empirical intuition is called appearance.” (*Critique of Pure Reason*, A 20/B 34)

But then, the way the two thinkers deal with this unclear knowledge is different.

From his youth, Goethe was attracted to Spinoza’s philosophy, which stated that nature was a manifestation of God (*Deus sive natura*).¹⁰ He adopts this view and regards all components of nature as parts of God’s infinity. In this respect, for Goethe, there cannot be any parts of nature that exist separated or detached from the rest (*SS*, 8). On the contrary, everything is pervaded by everything else; the finite living being is, in this respect, itself infinite, says Goethe (*SS*, 8).

Kant’s saying that a phenomenon or an appearance is the undetermined object of an empirical intuition can mean two things. First, at the empirical level, we do not yet have theoretical concepts to form an understanding of that appearance; we are only acquainted with it. Second, ‘undetermined’ means here unspecified, i.e., every possible object of an empirical intuition.

These two meanings hold for Goethe, too. However, the two thinkers are separated by their metaphysical views in which they integrate this immediate intuition of the phenomena. If Kant integrates this intuition within the structures of the transcendental subject, Goethe integrates it first into the infinite unity of nature and only secondly into human knowledge. Therefore, in Kant, the appearance is entirely opaque concerning any possible transcendent origin. In contrast, in Goethe, even at this very elementary level, the phenomenon carries within itself the whole of nature (*SS*, 8). Consequently, every kind of knowledge only deepens this initial experience of phenomena and, therefore, clarifies the representation of the unity of nature:

When we consider the structure of the universe in its fullest expanse and minutest detail we cannot help but think that the whole rests upon an idea which sets the pattern according to which God creates and works in nature, and nature in God, throughout all eternity. Perception, observation, and reflection will bring us closer to that mystery. (*SS*, 33)

⁹ Manfred Wenzel (Hrsg.), *Goethe Handbuch*, Supplemente, Band 2, *Naturwissenschaften* (Stuttgart: Weimar, Verlag J. B. Metzler, 2012), 586.

¹⁰ Benedict de Spinoza, *The Ethics and Other Works*, edited and translated by Edwin Curley (Princeton: Princeton University Press, 1994), 198.

However, unlike traditional substantialism, in which all beings exist within the same world and therefore have similar perceptions about that world, for Goethe, the interaction with infinity of every entity happens according to the specific conditions in which it exists. Therefore, says Goethe, “all of existence and totality must be made finite in our minds so that it conforms to our nature and our way of thinking and feeling.” (SS, 9).

The contraction of infinity to the scale of the finite living being and thus also of human capacities makes the content of perception at this elementary level different from the “thing in itself” if we think of the latter as being the thing that God knows. Therefore, this content is necessarily an “appearance” for Goethe, as it is for Kant. However, because Goethe considers that the human being can “feel”—while interacting with nature—“the closeness of a more than mighty power”,¹¹ he is, to a certain extent, also able to apprehend some of the features that this supreme intellect places into things. Among them, there is undoubtedly the “formative impulse” of reality (SS, 36), an impulse that can be found within every phenomenon. Here, we see the moment of continuity between the level of immediate perception and the higher capacities of the human mind:

Why should it not also hold true in the intellectual area that through an intuitive perception of eternally creative nature we may become worthy of participating spiritually in its creative processes? (SS, 31)

Neither in Kant nor in Goethe is the immediate phenomenon, given within perception, also known by this givenness. Perception, or intuition, is only the first moment of knowledge. Knowledge also implies understanding the fundamental properties of that phenomenon: those properties that have a recurring character and are not superficial or illusory, being, thus, only a semblance or an appearance in a bad sense. To reach this knowledge, one needs a lot of effort and a specific activity of the mind. One needs to observe the phenomenon in many different circumstances to grasp the recurring features finally. The ancients called this recurring or permanent feature of things their *form*, or the universal. Plato called it the Idea, and Aristotle called it the secondary substance.

During his life, Goethe constantly insisted on the importance of synthesis, but without ignoring the necessity of analysis. Synthesis is another concept that is fundamental to Kant’s philosophy, too. Goethe constantly insisted that synthesis had to be treated as necessarily preceding analysis (SS, 49). In this context, we may also recall that Goethe did not only borrow Spinoza’s idea of the infinite being that encompasses within it all finite beings but also Kant’s concept of an infinite or archetypal intellect (*intellectus archetypus*; SS, 31), that, similarly to the human intellect, always proceeds synthetically; the difference is that it does not proceed synthetically either in time or discursively. In Kant, synthesis meant the imagination’s procedure through which it produces all the forms of human knowledge:

¹¹ Johann Wolfgang von Goethe, *Maxims and Reflections*. Translated by Elisabeth Stopp (London: Penguin Books 1998; hereafter cited as *MaR*; the number cited refers to the specific maxim), maxim no. 808.

Synthesis in general is, as we shall subsequently see, the mere effect of the imagination, of a blind though indispensable function of the soul, without which we would have no cognition at all, but of which we are seldom even conscious. (*Critique of Pure Reason*, A 78/B 103)

This is why we find it at the level of empirical and pure intuitions as well as at the level of empirical and pure concepts. If we relate synthesis to the idea of an archetypal intellect, the result is that the divine Creation transforms into a plenitude of autonomous entities, each having a form that individualizes it in the vast fabric of Being. In this respect, Goethe never shared the view that the world could have started with an amorphous state and only subsequently have achieved order and form through a mechanical chain of accidents. For him, nature is always moved by an immanent divine spirit that transforms everything into a self-sustaining existence. Even the most amorphous appearance is never devoid of such a spirit, a fact that becomes visible if one allows enough time for that appearance to develop:

Not only loose matter, but matter that is crude and compacted, has an urge towards form: whole masses are basically crystalline by nature; in a mass that is undifferentiated and formless, stoichiometric approach and interrelationship give rise to a porphyry-like phenomenon which pervades all formations. (*MaR*, 1258)

The most beautiful metamorphosis within the inorganic realm occurs when the amorphous changes into what has form. Every mass has the tendency and the right to this. (*MaR*, 1259)

Thus, unlike in Kant, where synthesis, as an unconscious activity of the imagination, molds the primary formless layer of sensations, in Goethe, no such stratum exists as devoid of any forming internal impulse.

Of course, both for Kant and Goethe, the *intellectus archetypus* was an idea; it was a representation that one could build within one's own mind because, as Kant said, it contained no logical contradiction.¹² However, for Kant, this idea had no real theoretical value. It acquired its value only in the moral domain and also, but in a much weaker sense, in the general study of natural phenomena that exhibit a teleological aspect. Here, the natural phenomena thought of as creations of such an infinite intellect allowed only a teleological representation. However, this teleological representation could not have, in itself, an a priori character, through which it could have received a real scientific character and, therefore, might have been considered true. Therefore, teleology and the infinite intellect could be considered only as maxims of a reason that needs to unify nature under a specific idea. Kant saw the teleological interpretation of nature rather as a “daring adventure of reason” (*Critique of the Power of Judgment*, 288) than a scientific explanation.

Things were different with Goethe. For him, despite the infinite intellect being only an idea that could not be perceived as such in any experience, it was a

¹² Immanuel Kant, *Critique of the Power of Judgment*, translated by Paul Guyer, Eric Matthews (Cambridge: Cambridge University Press, 2000), 277.

reality because of the fundamental synthetic nature of all things pertaining to this experience. Goethe's constant biological observations and research strengthened his conviction that nature is a space of God's synthetic activity: "Nature hides God! But not from everyone!", exclaimed Goethe (*MaR*, 811).

In this context, we can remember that Goethe took an essential step forward in conceiving teleology. Not long before him, teleology was comprehended in an anthropomorphic way, namely by stating that everything in the world takes place to serve human interests,¹³ because of how Christianity conceived of man as being in the center of God's Creation. Goethe changed and criticized this perspective (*SS*, 53) and returned, to some extent, to the ancient objective view of teleology, i.e., he detached the understanding of the growth of plants and the teleological evolution of other natural processes from the human being and conceived it as being centered within themselves. By conceiving teleological processes in such a way, he could start from a synthetic view of those processes, i.e., from the internal form that actualized itself in time through the evolutionary process.

This is why, for Goethe, higher levels of knowledge can also start with syntheses in two senses:

a) in time, with the very elementary awareness of the real, objective synthesis operating within the empirical phenomenon or appearance:

From the softest breath to the most savage noise, from the simplest tone to the most sublime harmony, from the fiercest cry of passion to the gentlest word of reason, it is nature alone that speaks, revealing its existence, energy, life, and circumstances, so that a blind man to whom the vast world of the visible is denied may seize hold of an infinite living realm through what he can hear. (*SS*, 158)

(b) systematically, with a hypothesis about the nature of that phenomenon (*SS*, 48), a hypothesis we could call a subjective synthesis. Goethe acknowledged in this respect that he often carried within himself a sort of dissatisfaction with the concrete phenomenon when he had no explanation for it; only after some period of time did the explanation suddenly emerge either due to a new contemplation of the phenomenon or from a very accurate memory and representation of it (*SS*, 41).

The evolution of knowledge took in modernity a very relational aspect, and Goethe, too, requested researchers to study a phenomenon in as many contexts as possible, i.e., within the framework of as many possible relations with other phenomena, to be able to grasp its real nature, i.e., its constant properties:

All things in nature, especially the commoner forces and elements, work incessantly upon one another; we can say that each phenomenon is connected with countless others just as we can say that a point of light floating in space sends its rays in all directions. Thus when we have done an experiment of this

¹³ Ernst Cassirer, *Kleinere Schriften zu Goethe und zur Geistesgeschichte 1925–1944*. Mit Beilagen. Herausgegeben von Barbara Naumann in Zusammenarbeit mit Simon Zumsteg (Hamburg: Felix Meiner Verlag, 2006), 106-107.

type, found this or that piece of empirical evidence, we can never be careful enough in studying what lies next to it or derives directly from it. This investigation should concern us more than the discovery of what is related to it. To follow every single experiment through its variations is the real task of the scientific researcher. (SS, 15-16)

Only through such a thorough investigation was it then possible for him to seize the “pregnant point” (SS, 41) or to seize the “empirical evidence (...) of a higher sort” (SS, 16) of the phenomenon or the “entelechy” “that is always in active function” (MaR, 1365) within that phenomenon. In this respect, again, Goethe’s approach to biology is different from the usual approach of his time, especially from Linné’s view. Without denying the merits of Linné’s classifying procedure, Goethe insisted on the necessity of grasping the biological phenomena in their dynamic character and not simply in their differences from other phenomena (Goethe *Handbuch*, 212; 524), which is a static perspective. This dynamic perspective is actually the basis of his morphological understanding of phenomena: the way the internal forms actualize themselves must be very accurately studied because this evolution is very sensitive to every kind of influence. “Thus”, stresses Goethe, “we can never be too careful in our efforts to avoid drawing hasty conclusions from experiments or using them directly as proof to bear out some theory” (SS, 14).

Precisely because Goethe does not have a causal understanding of the world but a morphological one, and because every “finite living being partakes of infinity,” (SS, 9) one can speak of the participation of the human mind in the universal mind (SS, 31) and conceive of the object of perception, the appearance, as being shaped and not caused by external things. In this respect, Goethe says, in his *Study about Spinoza*, that finite living beings are not produced (or caused) by each other but give occasion to be (“gibt dem anderen Anlass zu sein”¹⁴), for each other, i.e., they make each other possible.

In “giving occasion to be,” one cannot distinguish any direct connection between the effect and its cause, as happens with two billiard balls, when the first hits the second, and the latter’s motion is seen as the immediate effect of the first ball’s action, conceived as a cause. When we say “giving occasion to be,” the connection is thought of differently; what appears—the “appearance”—is thought of from the perspective of its internal conditions, according to its own laws of existence, i.e., according to “the principle of conformity which guides its existence” (SS, 8), and not from the angle of the external cause. What could be seen here as external causality is a very vague and undetermined action of the outside world upon the influenced being. It is still an action, but because it lacks spatial and temporal localization, it cannot be seen as a mechanical cause. In this latter case, as with the billiard balls, one can always reduce the resulting effect to a specific point of contact between the two balls.

¹⁴ Johann Wolfgang von Goethe, *Werke*, Hamburger Ausgabe, Bd. 13, *Naturwissenschaftliche Schriften*, Bd. 1 (München: Deutscher Taschenbuch Verlag, 1988), 7.

In the relations between finite beings, as Goethe conceives of them, actions are rather circumstances that allow particular manifestations and developments of them. In this respect, one could say that it is entirely inappropriate to say that the relationship between the seed and the ground in which it lies is that the ground or the earth is the cause of the growth of the seed. It is clear that the ground is here rather a circumstance that favors or makes possible the manifestation of an internal, completely autonomous process that transforms the seed.

Conceived from the perspective of this autonomous process, the “appearance” or what might be seen as the point of contact between the interior and the exterior of the seed cannot be thought of as a sort of objective interaction between the two areas, simply because the entire ‘surface’ of contact is permeated from the very beginning by that ‘formative impulse’ that coordinates the growth. In other words, what the seed receives from outside bears the mark of that impulse from the beginning, which makes any ‘objective’ interaction impossible.

Something similar might have been thought by Kant, too, when he spoke about that “something” that “affects our sense” (*Critique of Pure Reason*, A 358). And, precisely because one cannot associate any intuitive content with this relation, he considered himself entitled to apply the category of causality to this relation:

The word ‘appearance’ must already indicate a relation to something the immediate representation of which is, to be sure, sensible, but which in itself, without this constitution of our sensibility (on which the form of our intuition is grounded), must be something, i.e., an object independent of sensibility. Now from this arises the concept of a noumenon. (*Critique of Pure Reason*, A 252)

Such a noumenal causality later made possible his ethics.

Because organic processes that are only made possible by their environment emerge completely according to the interior of living beings (i.e., the process itself cannot have a cause outside of it), you can ask yourself what the origin of such processes is. Of course, there cannot be another origin of them other than what is the origin of everything, namely God, infinity, or infinite nature. Therefore, in one way or another, everything carries within itself the hallmark of God, being simultaneously a symbol of Him. This is why the object of our perception, despite its profoundly subjective nature, can also be, for Goethe, a symbol of the whole of nature and its unity (and not a “mirroring” of an external stimulus), and why, in all “appearances,” we always find the same causeless transformations:

We can never directly see what is true, i.e., identical with what is divine; we look at it only in reflection, in example, in the symbol, in individual and related phenomena. We perceive it as a life beyond our grasp, yet we cannot deny our need to grasp it.

This applies primarily to phenomena of the tangible world (...) (SS, 145)

Because Kant considered our knowledge from a different angle (and not from that of the autonomy of the growing, natural process), namely the angle of the

possibility of Newtonian science and thus of its specific a priori cognitions, he was forced to ground the possibility of the appearance in the mechanical sense of the category of causality, a meaning necessarily based on the a priori intuitions of space and time, the only ones that could ground the mathematical quantitative understanding of the appearances. Proceeding in this way, the “appearance” present within the human experience could no longer keep any trace of something beyond it because we see its structures leading to an a priori science only within human culture and nowhere else. In this way, Kant lost the unity of the world, splitting it into a world of things in themselves and a world of phenomena. The Kantian reason’s idea of this unity could signify nothing else than a means to bring together the ‘manifold’ of human experience.

We now see the deeper reason for Goethe’s fundamental disagreement with mathematics and the mathematical understanding of appearances. Although he does not deny the benefits mathematics and measurement give to us when dealing with phenomena, he could not accept that mathematics could ever grasp their essence:

We must recognize and acknowledge what mathematics is, to what end it can substantially serve research in the natural sciences, where, on the other hand, it does not belong, and into what a deplorable state of error both science and art have fallen by false application since the time of the regeneration of mathematics. (*MaR*, 1281)

The great task would be to banish mathematical philosophical theories from those areas of physics where they only hinder insight instead of furthering it, and where mathematical treatment has found such a wrong-headed application by the one-sidedness of the development of recent scientific education. (*MaR*, 1282)

This essence had a qualitative nature—we must understand here “qualitative” in its ancient meaning, namely as a way of being. What is more, this way of being was dynamic and could not be predicted mathematically because it always depended on a multitude of circumstances. Therefore, for Goethe, unlike for Newton, no “*experimentum crucis*” (a single, decisive experiment) could ever express the actual substance of a phenomenon once and for all times (*SS*, 15-16). His polemic against Newton consisted in the fact that, according to Goethe, the experiment on which Newton based his theory of light was not enough to grasp the real nature of light. According to Goethe, Newton’s hypothesis of the composite nature of light was based on a single experiment, and a single experiment could never reveal the real manifestation of a phenomenon:

Newton had based his hypothesis on a complex, secondary experiment, one which required the creation of artificial relationships to connect it with other basic phenomena (those, at least, which could not be passed over in silence or simply dismissed). Thus these phenomena were placed in an uneasy position of subordination around this central point. (*SS*, 163)

If Newton considered himself entitled to conclude that light was composed of underlying colors, it was only because he had not done enough experiments concerning light. If he had done this, he could easily have noticed that colors occur constantly in specific circumstances, namely when light and darkness are both present in particular degrees, which forces us to conclude that colors are not components of light but byproducts of light, phenomena made possible by the interaction of light and darkness. Thus, according to Goethe, Newton's analytic way of thinking¹⁵ deceived him into believing that if one can get precise measurements about a fact in a single type of experiment, one also knows that fact. Although, ultimately, Goethe's theory of color was not accepted as a science, one acknowledges today that Newton's approach was somewhat biased by the view that a precise measurement could lead to a determination of the nature of something (*Goethe and the Sciences*, 183), i.e., that a specific theory can easily make us believe that facts look as the theory predicts (*Goethe and the Sciences*, 186). Only a large number of experiments conducted in different circumstances allow an understanding of the real behavior of a phenomenon, and not the simple repetition of the same experiment.

We see in these two different approaches of Goethe and Newton concerning colors also the difference in their more general view concerning the fundamental orientation the scientific method had to follow. Because Newton was an analytically-minded scientist, he saw everything as being composed of something more elementary (*Kleinere Schriften zu Goethe*, 38). Therefore, in his view, the goal of science had to be to discover those elements or the possible ultimate elements, and see how they combine mathematically to produce a specific phenomenon. This is how he proceeded with light when he thought that light could and must be decomposed into more elementary colors.

By contrast, Goethe was synthetically-minded (*Goethe and the Sciences*, 185). He did not look for components and elements but for how a given phenomenon behaves, a phenomenon he saw in itself as a complex unity, indeed, but first of all, as an irreducible unity. This unity is a symbol of how infinite nature proceeds everywhere, namely by giving occasion to be to every existing thing within its bosom. In his view, then, light did not produce colors but gave them the necessary occasion to be, to occur, to emerge, to manifest themselves through its interaction with darkness: "Colors are the deeds of light, what it does and what it endures." (*SS*, 158). To a certain extent, we might say that colors are to light what branches are to a tree. As branches are not "component elements" of the tree but the tree itself, so are colors, not "component elements" of light but light itself in its interaction with darkness. We can see then why, for Goethe, colors are derived phenomena, or, simply put, just phenomena, whereas light is an "archetypal phenomenon," an "*Urphänomen*".

¹⁵ Dennis L. Sepper, "Goethe Against Newton: Towards Saving the Phenomenon", in Frederick Amrine, Francis J. Zucker, Harvey Wheeler (eds.), *Goethe and the Sciences: A Reappraisal* (Dordrecht: Boston, D. Reidel, 1987), 185.

Light, the archetypal plant (*Urpflanze*), or magnetism are examples of such *Urphänomene*. They are fundamental structures of human experience around which this experience organizes itself:

In general, events we become aware of through experience are simply those we can categorize empirically after some observation. These empirical categories may be further subsumed under scientific categories leading to even higher levels. In the process we become familiar with certain requisite conditions for what is manifesting itself. From this point everything gradually falls into place under higher principles and laws revealed not to our reason through words and hypotheses, but to our intuitive perception through phenomena. We call these phenomena *archetypal phenomena* because nothing higher manifests itself in the world; such phenomena, on the other hand, make it possible for us to descend, just as we ascended, by going step by step from the archetypal phenomena to the most mundane occurrence in our daily experience. What we have been describing is an archetypal phenomenon of this kind. (*SS*, 194-194)

They are not, of course, the ultimate elements of this experience, as the ancient Democritian atoms were. However, neither are they “ideas.” We might recall in this respect the famous discussion between Schiller and Goethe when Schiller called the “symbolic plant” (*Urpflanze*) that Goethe previously sketched an “idea,” to which Goethe answered that if the *Urpflanze* is an idea, he was able to see ideas.¹⁶ Such a statement was meaningless in the Kantian context, in which Schiller meant his comment. Ideas cannot have any corresponding intuitions in Kant’s philosophy (*Critique of Pure Reason*, A 327/B 383). They are simply concepts of reason meant to unify our experience, i.e., “to give absolute completeness to the empirical synthesis” (*Critique of Pure Reason*, A 409/B 436). On the other hand, in Goethe, such *ideas* (and consequently, the *Urphänomene*, too) can, to some extent, be seen or perceived in experience:

An “idea” is something eternal and unique; it is not correct to use this term in the plural. Everything that enters our awareness and that we can talk about is no more than the manifestation of an “idea;” we express concepts, and to that extent “idea” is itself a concept. (*MaR*, 375)

What is termed an idea: that which always becomes apparent and is therefore evident to us as the law of all appearances. (*MaR*, 1136)

Original phenomena (*Urphänomene*): ideal, real, symbolical, identical. Empiricism: their unlimited multiplication, therefore hope of help, despair about completeness.

Original phenomenon

ideal as the last thing recognizable,

real as recognized,

symbolical because it understands all cases,

identical with all cases. (*MaR*, 1369)

¹⁶ Johann Wolfgang von Goethe, “Glückliches Ereignis”, in *Goethes Werke*, Hamburger Ausgabe, Bd. X, *Autobiographische Schriften*, zweiter Band (Hamburg: Christian Wegner Verlag, 1963), 540.

We see thus, that for Goethe, ideas are omnipresent; of course, not in themselves but through their derived phenomena. We understand the difference if we compare the Kantian ideas of God, the soul, or the world with the Goethean archetypal phenomena, namely the light, the *Urpflanze*, or magnetism (*MaR*, 434): the latter have correspondents in our experience, we can have an “immediate perception” of them (*MaR*, 433) although these correspondents are not entirely congruent with their representations, whereas for the former we cannot find any proper correspondents. This is why Goethe states that he can “see” ideas, which seems so paradoxical for a Kantian. These *Urphänomene* resemble Platonic Ideas, which are eternal shapes of material and concrete things, thus also involving a formal component. Nevertheless, Platonic Ideas are more akin to what we moderns call concepts rather than what we understand through “ideas.” Moreover, Platonic Ideas lack the dynamic and diachronic component of the morphologically conceived *Urphänomene* in Goethe. This component needed a very visual approach in order to be grasped, which made Goethe underline the importance of a visual, “exact sensory imagination” (*MaR*, 46) in his research.

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