

Imaginative Reflection in Aesthetic Judgment and Cognition

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Kant is well known for his strict distinction between aesthetic judgments and judgments of determinate cognition. Aesthetic judgments, and in particular judgments of beauty, are the domain of the reflecting power of judgment; they involve the free play of imagination and understanding.¹ Judgments of determinate cognition, and in particular empirical cognition, are the domain of the determining power of judgment; in them the products of the imagination are subordinated to the concepts and principles of the understanding.² This contrast notwithstanding, Kant takes both types of judgment to be related in important ways. Both involve the same faculties. And in both, these faculties are employed in a way that is sufficiently similar to warrant treatment in one book: the *Critique of the Power of Judgment* develops Kant's aesthetics as well as key tenets of his theory of cognition.

But what, exactly, is the relation between aesthetic and cognitive judgments on Kant's account? Several commentators have argued that a unitary account of judgment underlies Kant's aesthetics as well as his theory of empirical cognition. For example, Béatrice Longuenesse (1998, 2006) identifies a close connection between the reflective judgment involved in aesthetic judgments and the capacity for "comparison, reflection and abstraction" (Log AA 9:94–95) required for empirical cognition. Hannah Ginsborg (2015) takes aesthetic and cognitive judgments to be grounded in the same capacity to regard one's mental responses to objects in normative terms. For Rachel Zuckert (2007), it is the principle of "purposiveness... without a purpose" (KU AA 5:228) that informs judgments of beauty as well as those of empirical cognition. While these commentators disagree about significant details of Kant's account, they generally agree that an important objection must be answered: if the same mental activities that ground aesthetic judgments are also involved in cognition, it would follow, counterintuitively, that every cognised object should be perceived as beautiful.³

In this short paper, I cannot offer an adequate assessment of the benefits and shortcomings of previous accounts. Instead, I sketch an alternative reading. I argue that although the resulting judgments differ in important ways, they rely on a common core of imaginative reflection. While aesthetic judgments indeterminately present unities that the subject judges to be suitable to human understanding, cognitive judgments determinately

¹ In this paper I focus exclusively on aesthetic judgments of *beauty*.

² In the following discussion, I focus specifically on Kant's account of *empirical* cognition.

³ See Guyer (1979, 297) and Allison (2001, 184–192).

represent what the subject regards as an incomplete part of such a unity. Despite this difference, both kinds of judgment centrally rely on a common core of imaginative reflection.

I develop my argument as follows. In §1, I argue that, on Kant's account, aesthetic judgment is grounded in an imaginative reflection on the object of appreciation. In §2, I show that, according to Kant, the same kind of imaginative reflection also contributes to the advancement of cognition. My proposal has two advantages that I lay out in §3. It promises to avoid the objection mentioned above; and it shows how Kant's account can explain the well-known but curious phenomenon of the aesthetics of science.⁴

1. Imaginative reflection and aesthetic judgment

My first claim is that, on Kant's aesthetic theory, judgments of beauty are centrally grounded in the subject's imaginative reflection on the object of appreciation.

Consider an example from the performing arts. Some years ago I saw *Vollmond*, a beautiful piece by Pina Bausch, a German choreographer of modern dance who died in 2009. What made the dance so beautiful was the way in which the apparently simple movements on stage intimated something recognisable and universal about human interactions and human emotions. The beauty of the dance had to do with how a series of ordinary movements on a minimally decorated stage hinted at deep insights about something so complex and often so incoherent as human experience: about desire, the ecstasies and cruelties of courtship, and the fine line between humour and despair. The aesthetic experience I underwent in watching the show was grounded, not simply in my viewing the dancers moving on stage, but in the way in which, in viewing the dancers' movements, I found myself contemplating ideas that were of deep significance to me. The aesthetic experience arose, at least in part, from the creative achievement of the performance, its employment of movements, sounds, and scenes in a new and often surprising way to express something meaningful.

It is important, however, that the achievement represented by the performance was not that of enunciating a determinate meaning; and my experience of the performance was not that of deciphering a fixed code. The experience required an active imaginative involvement on my part. It prompted me to draw out meaning that went beyond, and was at least partly left undetermined, by the artwork itself. I felt as if the show challenged me to engage imaginatively

⁴ In my (2013) and (2018) I develop a more detailed account of what I take Kant to contribute to debates about the aesthetics of science. In my (2020), I develop some of the suggestions made here further, however, by going beyond Kant. I argue there that the common core of aesthetic judgments and cognition can explain two problems discussed in the aesthetics literature: the aesthetic dimension of cognition and the cognitive dimension of art.

with ideas I found expressed in the performance, and to continue to try out a variety of interpretations to make sense of what I observed. The beauty of the show lay in pointing me to ideas that went beyond what was strictly expressed by the dance itself. My aesthetic experience of Bausch's *Vollmond*, and my associated aesthetic judgment, was thus grounded, at least in part, in the creative achievement of the piece in pointing me to ideas that were of significance to me; but this achievement, in turn, relied on my own activity of imaginatively reflecting on the piece and was not fully determined by the piece itself.

Kant accounts for this type of aesthetic experience in the Critique of Aesthetic Judgment by reference to his theory of the "free play" of imagination and understanding (KU AA 5:217). The free play involves, on the one hand, the imaginative capacity to combine and unite sensory representations and to present such combination as a unity. And it relies, on the other, on the capacity of the understanding to reflect on such a unity as a unity of a specific sort. When the two faculties are in free play, the imagination unifies the manifold of sensible representations in a way that is suitable to be conceptualised by the understanding. But the understanding does not conceptualise this unity as a unity of any particular kind; the unity is not cognised as representing any one particular thing. The resulting aesthetic judgment relies on a non-determining reflection in which we take the unity imagination presents to us as suitable, or purposive, for understanding, without construing it as suitable to be understood in any one specific way.

Kant allows for different ways in which this non-determining reflection can manifest itself. In the case of beautiful art such as Bausch's *Vollmond*, for example, it may involve reflection on an inexhaustible wealth of thoughts that are not fully determined by the work itself, but that nevertheless present ideas taken to be expressed by the work.⁵ As Kant puts it, beautiful art "expands the mind by setting the imagination free" and by pointing us to "a fullness of thought to which no linguistic expression is fully adequate" (KU AA 5:326).⁶ In my aesthetic experience of Bausch's *Vollmond*, for instance, I take my associations of love and desire, and of humour and despair, to be hinting, albeit only ever indeterminately, at an idea that makes human experience fully comprehensible to me. In appreciating artworks such as *Vollmond*, I take pleasure in this cognitively suitable yet indeterminate unity: I appreciate the work as expressing "a coherent whole of an unutterable fullness of thought" (KU AA 5:329). In appreciating Bausch's show, for instance, I reflect on ideas of human experience and human

⁵ Kant calls such representations "aesthetic ideas" (CJ AA 5:314). See e.g. Chignell (2007).

⁶ Translations are my own, but are guided by Kant (1790/2000).

emotion as making sense to me, and yet as never adequately expressed by any determinate concepts.

On Kant's account, aesthetic judgments thus consist in an indeterminate presentation of an imaginative unity that is suitable to human understanding. Aesthetic pleasure is, at its core, an appreciation of this fully comprehensible yet indeterminate unity. And it is the subject's imaginative reflection, or the free play of imagination and understanding, that makes her presentation of such an indeterminate unity possible.

2. Imaginative reflection and cognition

My second claim is that the same kind of imaginative reflection that grounds aesthetic judgment also plays a central role in the search for cognition.

I start again with some examples, this time from science. According to a well-known narrative, the nineteenth-century German chemist August Kekulé who discovered the ring structure of benzene did so in a way that centrally involved his imagination: he had the idea of the benzene ring after dreaming of a snake eating its own tail.⁷ Kekulé used his imagination to visualise the snake and draw analogical connections with the structure of benzene. It was his capacity for imagination that set him on the path to formulate a new hypothesis and gain important insights into the structure of the micro-world.

Imaginative reflection contributes not only to the formulation of new hypotheses. It is also involved in working on already existing hypotheses and theories.⁸ It plays an important role in seeing how a theory may be developed further and what additional problems it might solve. Newton's studies on the laws of motion, for example, took their start from Kepler's astronomical investigations. Having read Kepler, Newton asked what caused the planets to move in the way Kepler's laws described: what force was necessary to constrain a planet to stay within its orbits, and not to veer off course? It was in engaging with Kepler's laws and with what they left open that Newton saw the force needed had to be directed towards the centre of the orbit. In particular, it was in imaginatively drawing out those aspects of the phenomena that instantiated Kepler's laws as well as those that the laws left unexplained, that Newton came to formulate the important insight that the sun exerted a gravitational force on the planets.

Kant develops an account of the imaginative reflection illustrated in these examples in his theory of reflective judgment, set out in the introductions to the *Critique of the Power*

⁷ E.g., Roche (2010).

⁸ E.g., Schaffer (1994).

Judgment. On Kant's account, reflective judgment consists in searching for a universal that subsumes a given particular. It contrasts with determining judgment, which subsumes particulars under universals that are already available (KU AA 5:179; see also EEKU AA 20:211). According to Kant, reflective judgment is required to gain empirical cognition. In particular, it is required in our attempt to gain insight into the conditions of things that are not immediately before our eyes, and into the laws that govern them. Whether we are searching for an account of the microstructure of a chemical compound or are working on a theory of the laws of motion, reflective judgment is involved in the search for universal concepts and principles to subsume as yet unexplained phenomena.

I argue that the mental activities operative in such scientific advances, and in the search for empirical cognition more generally, share a common core with those that ground aesthetic judgments. Just as in the aesthetic case, the reflective judgments that constitute the search for cognition involve imagination and understanding. They involve the capacity to present a particular as a unity that is suitable to human understanding, but that, in the absence of an available concept, is not understood in any one particular way.⁹ And they involve reflection on such a particular as suitable, or purposive, for human understanding. As Kant puts it, the search for a universal to subsume a given particular is guided by the principle of the "purposiveness of nature": the principle that the phenomena have a unity that is suitable to, or "for the sake of", our understanding (KU AA 5:180).

The important difference between aesthetic and cognitive judgments is not threatened by this common core of imaginative reflection. In the case of aesthetic judgment, the imaginative unity is taken to present, indeterminately, a unity fully comprehensible to human cognizers. In the case of cognitive judgment, by contrast, the given particular is subsumed under a concept and thus represented determinately as having specific properties. It is thereby presented, furthermore, as a small part of the kind of unity we are after in the search for cognition: a complete and unified account that makes the phenomena fully comprehensible to us. While aesthetic judgments offers *indeterminate* presentations of a *fully comprehensible* unity, cognitive judgments offer *determinate* representations of something we take to be only a *part* of such a unity. Aesthetic and cognitive judgments are of two distinct kinds, even if both centrally rely on a common core of imaginative reflection.

⁹ The complex question of whether or not Kant does indeed offer a unified account of the imagination goes beyond the constraints of the paper. See, e.g., Matherne (2016), Horstmann (2018).

I thus suggest that there is an unexpected connection between the mental activities involved in aesthetic judgment and those that lead to determinate cognition: the same kind of imaginative reflection that grounds aesthetic judgments also forms part of the search for cognition.

3. Aesthetic judgment and cognition

This leads me to my final claim. I suggest that my proposal has two advantages: first, it promises to answer the objection raised in the introduction. Second, it shows how Kant's account can explain the well-known phenomenon of the aesthetics of science. I briefly sketch the first point before developing the second.

One might object that my reading falls foul of a problem: if the same mental activities that ground aesthetic judgments are also involved in cognition, does it not follow, counterintuitively, that every cognised object should be perceived as beautiful? My suggestion for answering the objection is two-fold. First, anything that lies in the realm of cognition – natural phenomena, artworks, scientific theories, and much more – can, in principle, be experienced as beautiful. This is because the same fundamental imaginative reflection is involved in both aesthetic and cognitive judgments. But, second, not all things we cognise are necessarily experienced as beautiful. This is because the resulting aesthetic and cognitive judgments are of distinct kinds. And which of the two judgments we form depends on further conditions, conditions that, I take it, will be partly empirical. For instance, whether or not I perceive the Fenlands outside my train window as beautiful may depend on my state of mind, on whether I am tired and in a rush to get home, or have the time and leisure to contemplate my surroundings. Whether or not I perceive beauty in Bausch's show may be influenced by my expectations of the show, and by my familiarity with the genre. Whether or not I perceive beauty in a mathematical proof may be partly due to my mathematical training and to the ease with which I can follow the proof. Empirical factors such as these may influence what kind of judgments I make. This second part of my answer, I believe, makes the first part less counterintuitive: on my reading, anything within the realm of cognition can in principle be perceived as beautiful, but not many things are, as a matter of fact, be perceived in this way.

In some instances, however, we do perceive beauty in the things we cognise. And when we do, on my reading, we do so on the grounds of an imaginative reflection that underlies both aesthetic judgments and our search for cognition. Consider another example from the history science. In his notes detailing the development of his quantum theory, Werner Heisenberg recounts a night on the North Sea island of Heligoland in May 1925:

I concentrated on demonstrating that the conservation law held, and one evening I reached the point where I was ready to determine the individual terms in the energy table... When the first terms seemed to accord with the energy principle, I became rather excited, and I began to make countless arithmetical errors. As a result, it was almost three o'clock in the morning before the final result of my computations lay before me. The energy principle had held for all the terms, and I could no longer doubt the mathematical consistency and coherence of the kind of quantum mechanics to which my calculations pointed. At first, I was deeply alarmed. I had the feeling that through the surface of atomic phenomena, I was looking at a strangely beautiful interior, and felt almost giddy at the thought that I now had to prove this wealth of mathematical structure nature had so generously spread out before me. I was far too excited to sleep...

What I saw during that night in Heligoland was admittedly not very much more than the sunlit rock edge I had glimpsed in the autumn of 1924...¹⁰

I take Heisenberg to be describing an aesthetic experience. His notes suggest that, in the process of carrying out a range of mathematical calculations, he felt a genuine pleasure. But he did not simply take pleasure in discovering particular properties of the theory he was in the process of formulating, or in the fact that his calculations were correct and were successful at proving the energy principle. The experience he describes had to do with his theory suggesting to him general and far-reaching insights into the structure of atomic phenomena, yet only *suggesting* them. As Heisenberg puts it, by going through his computations, he felt as if he could see into 'a strangely beautiful interior' of the quantum world. His infant theory intimated to him important ideas about the phenomena, yet ideas he did not grasp in their entirety and that still required proof. The beauty of Heisenberg's calculations lay in their bringing out a deep insight about the phenomena while, at the same time, intimating to him that what he had achieved was 'not much more than the sunlit rock edge' he had already seen a year earlier, and only a glimpse of the insights yet to be discovered.

On my reading of Heisenberg's notes, he was experiencing beauty in the process of gaining genuine scientific insights. In his search for comprehension of the natural world around him, he determinately judged it to have a certain quantum structure. But he also, in the process, experienced pleasure in reflecting on ideas that hinted at the complete unity of the natural world, at ideas whose full comprehension lay beyond anything that could be grasped in the form of determinate judgments. Heisenberg was thus engaged in formulating aesthetic as well as cognitive judgments. And, on my reading, Kant gives us a unified account of why the combined occurrence of such judgments is no surprise. Aesthetic judgments and judgments of determinate cognition have the same kind of mental activity at their core: both are grounded in the subject's imaginative reflection on the object.

¹⁰ Heisenberg (1974, 75).

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